



Bridging Ideas of Best Practice in Gifted Education and Language Learning in English as a Foreign Language in Portugal

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Tese de Doutoramento em Ciências da Educação

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English as a Foreign Language in Portugal

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Professor Doutor Carlos Ceia

[DECLARAÇÕES]

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O orientador,

Carlos Leic

Lisboa, 23 de Julho de 2018

For my husband Milan and my daughter Anaya

....sometimes it does take a child to raise *up* a village (Terry & Bohnenberger, 2003).

Forever grateful to my daughter and students.



Anaya Milan Prabhudas, aged 9.

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BRIDGING BEST PRACTICE IN GIFTED EDUCATION AND ENGLISH AS A FOREIGN LANGUAGE IN PORTUGAL

RIMA JAY PRAKASH

ABSTRACT

Diversity is an enriching reality of our 21st century classrooms. The gifted and talented learner cannot be left behind. Gifted students often show areas of giftedness in language as well as foreign language learning and are present in our general classrooms everyday. Persevering and pursuing their talent and interest with a teacher who can challenge and therefore promote learning may be a key element.

Differentiating the curriculum, differentiating instruction as well as assessment are pedagogical ‘musts’ if we aim to embrace the diversity of our most able students in this era of great accountability. There has to be, as suggested by experts a match between ‘who’, ‘what’ and ‘how’ we teach to result in student engagement. This ‘who’ is not the gifted group as a block but each individual high ability learner who brings with him an array of different characteristics, strengths and weaknesses. This array of characteristics requires an array of measures; acceleration and enrichment on their own might not be enough. It is of great importance that the Portuguese educational system embrace more delineated strategies of differentiation in order to cater for the needs of the heterogeneous population of gifted and talented learners present in our classrooms.

This study, comprising of both a quantitative and qualitative design, gathered data from 110 public and private schoolteachers (of English) regarding their attitudes and perceptions of the gifted and gifted education as well as of self-reported strategies being implemented in class. Further information was collected from classroom observations as well as semi-structured interviews.

Findings suggest that secondary teachers of English harbour very positive attitudes towards gifted learners in what concerns understanding their educational needs and also indicate that teachers’ ideologies do not intervene with the provision for the gifted. However, secondary teachers of English in Portugal seem to harbour ambivalence regarding the perception of the isolation of gifted individuals as well as towards ability grouping despite the existing empirical research evidence. It was also found that based on the sample of teachers of English as a Foreign Language that

participated in this study, little or no differentiation that caters for the gifted is taking place in Portuguese classrooms.

To help lessen the achievement gap in what could be and what is and to rectify the inattention so far towards this subpopulation of learners, an overview of differentiation strategies that can be used in an English as a Foreign Language setting is suggested, alluding additionally to the idea that some practices are effective with all learners and are synonymous to driving up standards for all.

Furthermore, the improvement in the understanding of the concept of giftedness, working with teacher beliefs and attitudes and embracing differentiation are recommended practices during teacher training courses. Professional development and further research concerning subject-specific strategies and more supportive school leadership as well as more inclusive laws are also highlighted as some of the current challenges and ways forward in embracing giftedness.

Keywords: attitudes, curricular modifications, differentiation, English as a Foreign language, gifted, gifted education, gifted and talented, gifted language learner, high ability, inclusion, instructional modifications.

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RESUMO

A diversidade descreve uma realidade enriquecedora das salas de aula do século XXI. Os alunos sobredotados e talentosos não podem ser negligenciados. Frequentemente, estes estudantes demonstram nas aulas as capacidades de sobredotação na aprendizagem de língua materna e estrangeiras. Estes alunos precisam de perseverança de professores que, com capacidade para os desafiar, consigam explorar os seus talentos e interesses, promovendo assim a aprendizagem.

Se a nossa intenção é aceitarmos, e até encorajarmos, a diversidade dos alunos mais capacitados nesta era de grande responsabilização, então a diferenciação do programa curricular, dos métodos de ensino e das avaliações é um elemento pedagógico obrigatório. A literatura indica que é necessário irmos ao encontro daqueles que ensinamos, trabalhando as matérias que ensinamos e a forma como o fazemos de modo a conseguirmos captar o interesse dos alunos. Quem ensinamos não é o grupo de sobredotados, mas, sim, cada um dos alunos com elevadas capacidades de aprendizagem que traz consigo um conjunto de diferentes características, forças e fraquezas. Este conjunto requer um conjunto de medidas também ele diversificado: a aceleração e o enriquecimento podem não ser o suficiente. É de extrema importância que o sistema educativo português adote estratégias de diferenciação mais delineadas para atender às necessidades da população heterogénea de estudantes sobredotados e talentosos presentes nas aulas.

Este estudo, que compreende uma metodologia quantitativa e qualitativa, reuniu dados de 110 professores (de inglês) de escolas públicas e privadas, atendendo às suas atitudes e perceções relativamente aos alunos sobredotados e à educação dos mesmos, bem como às estratégias que eles próprios indicaram implementar em aula. Informações adicionais foram recolhidas a partir de observações em aula e de entrevistas semiestruturadas.

Os resultados sugerem que os professores de inglês do ensino secundário têm atitudes muito positivas quanto à compreensão das necessidades educativas dos alunos sobredotados e demonstram que as suas ideologias não interferem com a educação destes alunos. Contudo, estes professores aparentam demonstrar uma certa ambivalência quanto à perceção do isolamento social dos indivíduos sobredotados apesar das evidências dos estudos empíricos existentes. Com base nos dados da autoavaliação e nas observações de aula, aferiu-se que os professores de inglês como língua estrangeira que participaram neste estudo pouco ou nada utilizam estratégias diferenciadas para os alunos sobredotados em Portugal.

Para atenuar a disparidade entre os resultados reais e aqueles que estes alunos poderiam ter, bem como para retificar a atual negligência a que esta subpopulação de alunos se vê votada, sugere-se uma visão global das estratégias de diferenciação que podem ser aplicadas nas aulas de inglês como língua estrangeira, avançando ainda a ideia de que algumas práticas são eficazes em todos os estudantes e, portanto, serão úteis para aumentar o nível global do grupo na sua totalidade.

Além disso, recomenda-se o aperfeiçoamento da compreensão do conceito de sobredotação, o trabalho em termos das crenças e atitudes dos professores e a aceitação e consagração da diferenciação durante a formação dos professores. Destaca-se também alguns dos desafios atuais e os próximos passos para aceitar e consagrar a sobredotação, nomeadamente mais investigação em estratégias específicas para cada disciplina, o desenvolvimento profissional, uma direção de escola mais compreensiva e a promulgação de leis mais inclusivas.

Palavras-chave: altas capacidades, aluno de línguas sobredotado, atitudes, diferenciação, educação para sobredotados, inclusão, inglês como língua estrangeira, modificações educativas, sobredotado, sobredotados e talentosos.

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INTRODUCTION

I felt complete shame (she remembers). I could hardly look at the principal. But an amazing thing happened. She spoke to me very gently and her face was so kind. “Jessica,” she said, “this isn’t like you. What is wrong?” Her kindness opened my heart and I said, “I feel frustrated.” Then she said, “What can we do to help?” and I found I was able to say, “I want harder work.” (Gross, 2004, p. 258).

Diversity in all its shapes and sizes is a present reality of our general classrooms. The Salamanca Statement agreed upon in 1994, and to which Portugal is also a signatory, commits to an education for all, ‘recognizing the necessity and urgency of providing education for all children, young people and adults “within the regular education system,” (The Salamanca Statement, 1994, p.7). Inclusion has encouraged a shift from special programs for special educational needs students and segregation to full involvement and participation in a regular classroom. Inclusion focuses on the child’s right and a school’s duty to embrace his special need, whatever it may be. Consequently, teachers today are faced with an even bigger challenge than before. In any classroom there is a wide range of learners and a wide range of learner needs that teachers need to take into account in their planning, teaching and assessing. I would say that the emphasis in teaching today is not about whether a teacher should or should not respond to the diversity, but in how to respond.

1. Statement of the Problem

When confronted with children of various different disabilities as well as abilities and more often than not a pressure to meet national test standards, it is those that are considered the least needy that are in danger of being neglected. Drain (2008) uses the analogy of a triage system where in the case of limited medical resources, it is those that are in need of immediate assistance that are attended to. Gifted students’ needs are often overlooked as they do not seem as urgent (VanTassel-Baska & Stambaugh, 2005).

As all children, the high ability deserve to be challenged and nurtured in a way that is appropriate for them. Contrary to an existing myth, gifted and talented (G&T) students will not always make it on their own (Peixoto & Vilas-Boas, 2002). Current Portuguese legislation offers gifted students the possibility of being accelerated and in the majority of cases this is enabled by starting the first cycle of school before a child reaches his/her sixth birthday, completion of the first cycle at the age of nine and progression to a higher grade within a school year once during second and third cycles (Despacho Normativo No. 24/A de 2012, Artigo No. 25; Despacho no 18061/2010).

Santos and Paulino (2006) go as further as to say that schools do not include but almost exclude particular groups to the benefit of others. Portuguese legislation, as per Bastos (2009), takes into account the disabled child but does not contemplate the gifted learner in what concerns his/her multi-dimensional identity. While tremendous work is being carried out for children with learning disabilities/difficulties, the educational system is still lacking in catering for our most able children. Delandtsheer (2011) calculated that by the time a gifted learner leaves highschool, he/she will have spent two years waiting for the other students to reach the same level of mastery. This non-productivity is not coherent with aims of educational excellence.

The Portuguese educational system needs to address inclusion of the gifted population by highlighting the need to make alterations to schools and teaching to embrace all gifted learners, bearing in mind that within the group there is tremendous variance. Measures that encompass only enrichment or only acceleration may not suffice. Acceleration may be an option for students that are gifted in all academic areas but as a multi-dimensional concept, gifted children require a variety of different responses. A student who is accelerated with curricular adaptations that do not involve complex thought is not being adequately catered for. On the other hand, an exceptionally gifted child might not be served for adequately only with enrichment. So these options as offered by the Ministry of Education as some of the few possible measures can be redundant in that populations of gifted children are heterogeneous and display an array of talents and specificities and excel in some academic areas and not others. Despite being supported by the legislation in reality these strategies are seldom implemented (Ramôa & Oliveira, 2013). Considering that 3%-5% of children are gifted (Pocinho, 2009), or 3%-10% as proposed in the 2008 EURYDICE Report a range of

options need to be made available. One of these responses is key and is held in the hands of those who the gifted spend most of their day with: their teachers.

Furthermore, according to research carried out by Costa and Rodrigues (1999), laws and regulations fail in recommending details about teaching methods. Embracing aspects which are conducive to a more just system for all students is required. As suggested by experts a match between “who”, “what” and “how” we teach is fundamental to result in academic success. This match requires modifications, extensions and adjustments to the curriculum and to teaching strategies which the educational world has termed as differentiation. To use VanTassel-Baska’s words, differentiated instruction and curriculum are the two “non-negotiables” of gifted education (2005, p.90). As some G&T children often attain language competency at a chronologically earlier age than their peers, these high ability learners frequently demonstrate excellence in diverse language learning areas such as critical reading, literary analysis, creative writing, linguistic and vocabulary development and foreign language acquisition (VanTassel-Baska, 1996).

When students do not receive a curriculum that is appropriate for their ability, there is a failure in the release of adequate levels of dopamine, nonadrenalin and serotonin which are all required for appropriate learning and this can often manifest itself as a form of apathy. Tomlinson and Kalbfleisch (1998) also describe the importance of feeling safe and nurtured. If feelings of intimidation, rejection or threat are experienced, there is a fight or flight response which often results in misbehaviour and withdrawal. It is not a surprise then that these teachers refer these learners to psychologists on account of difficulties encountered within the classroom rather than based on their exceptional abilities. Teachers often mention poorly written work, restlessness, lack of attention and loss of concentration, relational difficulties with children who are the same age, preference of independent work, lack of interest, critical attitude towards tasks given and underachievement when characterizing their gifted learners (Oliveira & Almeida, 2010). Although it is important that we find ways to counteract the present underachievement amongst the gifted population, prevention is key.

Many of the above mentioned psychological, physiological and social aspects may impact gifted students in a manner that is irreversible. The consequences are underachieving gifted learners and loss of talents.

It is imperative to understand what best practice literature recommends for the gifted, explore to what extent Portuguese teachers are catering for our most able and work towards closing this gap. In fact, towards the end of 2017 ANEIS (Associação Nacional de Estudos e Intervenções na Sobredotação) published a handbook for teachers (*Guia para Professores e Educadores – Altas Capacidades e Sobredotação*) which seems to suggest that closing this gap is one of the next steps in raising the quality of gifted education in Portugal (see Rocha, 2017). Although this guide includes a section on recommended practices in virtue of students' learning styles, a vital step for secondary school teachers would involve the development of a subject-specific, grade-bound range of strategies. This study aims to contribute to gifted education literature by focusing on English as Foreign Language for students at the secondary level of education.

Besides the above mentioned physiological and psychological effects on learning, some authors underline that these invaluable human resources must not be wasted or overlooked. It is argued that in a time of instability and doubts, human potential is our most fundamental asset (Sternberg & Davidson, 1986). Nevertheless, there is not only a moral, ethical and political calling but a statutory one. Each school is compelled to work to each and every student's potential.

Yet another fundamental aspect is that research demonstrates that ambivalence towards gifted education is a present reality, opinions often swaying between “equity” and “elitism”. Whilst many studies have demonstrated positive attitudes (Michener, 1980; Ramôa & Oliveira, 2013) others have demonstrated negative attitudes towards the gifted and their education (Cramond & Martin, 1987; Kniveton, 2004; Roiha, 2012). Both positive and negative attitudes towards elitism, acceleration, ability grouping and inclusion have also been shown (Lassig, 2003; Marshall, Ralph, & Palmer, 2002; McCoach & Siegle, 2007; Troxclair, 2013) and have further contributed to the literature by suggesting determining variables such as training, higher level qualifications, self-perception as gifted and having gifted relatives and others as predictors of attitudes. Inarguably, there has been little consensus so far.

Teachers' negative attitudes may result in a vetoing of the legislation which commits to an education for all. According to Bégin and Gagné (1994a,b) studying the

attitudes of general education teachers and administrators is a must if curricular and instructional changes are to be implemented to challenge and nurture society's gifted and talented students. Studying teachers' attitudes in Portugal therefore, is the first question that needs to be addressed when conceiving a programme to cater for the gifted (Davis & Rimm, 2004).

2. Purpose of the study

The purpose of this study is to (a) explore the attitudes and perceptions of teachers of English as they relate to gifted students and (b) to analyse the practice that teachers of English employ in a foreign language classroom setting in Portugal when catering for the gifted and (c) contribute to the literature by exploring how differentiated instruction/curriculum can be used in an English as a Foreign language classroom with gifted students.

3. Research Questions

The research questions that this research aims to answer are (1) what opinions do secondary teachers of English as a Foreign Language in Portugal hold concerning gifted learners and their education?; (2) how do secondary teachers of English as a Foreign Language in Portugal perceive the way they differentiate instructional practice to accommodate their gifted learners?; and (3) how do secondary teachers of English as a Foreign Language in Portugal differentiate instructional practice to accommodate their gifted learners?

4. Significance of the Study

Although a substantial amount of research has focussed on attitudes of teachers towards gifted learners and their education, no clear picture has emerged (McCoach & Siegle, 2005). Drain (2008; 2009) for example, carried out interesting research regarding general teachers' attitudes towards the gifted as well as their practices in K-5 (from kindergarden to fifth grade) in the American context. There is however, little information on attitudes towards the gifted in Portugal; this study aims to provide an in-depth understanding of teachers' attitudes and shed light on possible predictors.

Furthermore, this paper aims to disclose the extent to which Portuguese teachers of English working at the secondary level engage in gifted-friendly practices in an English as a Foreign Language classroom. The importance of this work lies in its aim to bridge the gap between research-based practices for the gifted and suggest ways to enhance their usage in an EFL classroom.

To help lessen the achievement gap in what could be and what is, an overview of differentiation strategies that can be used with gifted learners in an English as a Foreign Language setting at the secondary level is proposed. In the future, the Ministry of Education may develop this idea further into a more comprehensive, subject and possibly grade-bound handbook for teachers. Teachers can benefit by putting into practice the array of subject-specific, research-based activities and strategies and cater for all their learners, including their highly able. Although the practices are directed towards EFL, many can also be applied to language classes in general.

On the whole, it may further highlight the need for a differentiated curriculum for the gifted in Foreign Language learning which may contribute to one in general education subjects. There is growing agreement that what constitutes high quality curriculum for the high achievers does so for all learners (Hockett, 2009). In this manner, we are committed to driving up standards for all in this era of greater educational accountability.

As there is a dearth of knowledge on attitudes and practices towards the gifted and their education in Portugal, this research has the potential of helping educational authorities; current attitudes and practices can be compared with ideal practices and attitudes. It may also aid educational authorities in charge of professional development to plan and evaluate teacher training programmes that entail meeting the needs of gifted learners. State curriculum writers may consider using the Integrated Curriculum Model, with its strong body of empirical research, as a guideline to improve learning for all.

This research may help raise awareness about how gifted students can be better embraced in Portugal, a road which we have just set out on. According to a comparative study of 21 European countries, Monks and Pfluger (2005) state that the political recognition of giftedness in Portugal has been encouraging. Various projects are being carried out as well as some Masters and PhD level theses. However, according to Fleith, Almeida, Alencar, and Miranda (2010) these tend to focus primarily on identification of

giftedness. In general, legislation seems to offer acceleration i.e. the skipping of grades as well as enrichment as educational strategies for the gifted and talented. The Portuguese research community urges the need to generalise and apply the legislation to gifted students and broaden the range of measures that educators can carry out to embrace these gifts in our classrooms.

5. Overview of the Research Study

The research questions, which aimed to understand the attitudes and perceptions of teachers as they relate to gifted students as well as differentiation practices taking place in the EFL classroom, were analysed with the help of three instruments: Opinions towards the Gifted and their Education Attitude Scale (OGE), an adapted version of Classroom Practices Questionnaire (Adapted CPQ) and the Classroom Observation Scale-Revised (COS-R). Further insight on practices carried out in the classroom were collected via a semi-structured interview.

A convenience sample of 110 secondary schoolteachers of English completed the online survey comprising of both the Opinions towards the Gifted and their Education Attitude Scale (OGE) and an adapted version of the Classroom Practices Questionnaire (CPQ). Teachers also provided contextual data. Twenty-six teachers were observed and fifteen foreign language teachers agreed to take part in a semi-structured interview. Data from the participants was entered into SPSS by the researcher. A combination of quantitative and qualitative research strategies were used to shed light on teachers' attitudes and gifted-friendly practices.

6. Assumptions

During the course of the study, various assumptions were made. It was assumed that the population is a representative sample of public and private EFL teachers teaching secondary level. It was also assumed that the instruments used purported to measure what they set out to analyse. It was assumed that the participants reported their actual opinions and practices and that these were recorded in a reliable manner. It was also assumed that the research-supported practices underlying the conceptual

framework of the Integrated Curriculum Model (ICM) would enhance learning for the gifted.

7. Limitations and Delimitations

The current study has various limitations. Firstly, it consists of a convenience sample therefore generalisations can only be made to participants and schools that have similar characteristics and working environments. Data from 110 participants was analysed to understand teachers' attitudes towards the gifted and their education as well as differentiating practices towards the gifted. Within these, only thirty-five reported having gifted children in their classrooms, which compromised the sample in which to analyse the differentiating practices. Additionally, not as many observations as the researcher would have liked took place. These were arranged with teachers who reported having formally as well as informally identified gifted children. Ideally, observations of teachers would take place at various points over the school year but extenuating circumstances did not allow for this to take place. The usage of self-report data may also have contributed to the limitations in this study. Teachers may have had concerns about their responses given the sensitive nature of the aspects being surveyed: attitudes towards a specific population as well as teacher practices. This may also have hindered the data collected from the semi-structured interviews. Assurances of confidentiality may not have sufficed to ensure basic honesty from the respondents i.e., data may not reflect actual teacher attitudes and practices. Another possible limitation may be that teachers might have interpreted the various items differently.

The study was delimited by the scope of inquiry and its focus on attitudes and practices of mainstream secondary teachers in mainly two cities in Portugal, Lisbon and Porto with the majority having been from the former. The study was also subject specific in that the objective lied in practices within the English as Foreign Language classroom. The study was also delimited by its focus on attitudes and practices towards and related to gifted students.

CHAPTER I: LITERATURE REVIEW

The purpose of this study was to understand both the attitudes of secondary teachers of EFL towards the gifted and their education as well as to explore gifted-friendly practices taking place in the classroom. Hence, it was deemed essential to firstly understand what it is that is meant when referring to giftedness; a historical overview is given in addition to various perspectives and models of giftedness. The identification of gifted learners as well as gifted language learner characteristics are examined in this first part. In the following section of the literature review, teachers' perceptions and attitudes towards the gifted and their education are explored. It was then considered fundamental to analyse best practice strategies that cater for the gifted; differentiation practices as well as obstacles that hinder its implementation are further explored in the third and last section of the literature review. Each section concludes with a summary of the research discussed.

I. 1. What do we Mean by “Giftedness” and “Talent”?

If physicists had to agree on a definition of the nature of the universe before they could study it, we would still be working on pre-atomic theory (Cramond, 2004, p. 15).

I. 1.1. Introduction

Giftedness is a label, one that is replete with unclarity. To answer whether a particular child is gifted or not depends entirely on the criteria one sets. Furthermore, one can be said to be gifted in a specific or general way. If an individual is said to be gifted it may imply that there is excellence across a broad range of domains whilst it can also mean being gifted in a very narrow field such as verbal skills. In a conservative versus liberal approach to giftedness, one may consider a cut-off point lower or higher on an IQ test. Giftedness can also change in terms of knowledge and expertise which is culturally relevant to a society at a referred time. Giftedness can also be viewed in terms

of potential or performance. Fully understanding giftedness can be said to be an extremely exciting field as there still seems to be lots to unravel.

The range of definitions and conceptualisations that have risen are important to understand and without an analysis of its development through time, full appreciation of the concept cannot be achieved. In the review below, the first period to be considered is from primitive civilisations to the 20th century. After this point, a framework as proposed by Kaufman & Sternberg (2008) will be used where the various theories, conceptions and models are divided into four sections: general and specific domains and systems focussed and developmental models.

I. 1.2. Historical perspective on giftedness

Giftedness has taken upon it and metamorphosed according to the sociocultural values underpinning each society. A retrospective analysis of these various epochs makes it clear that they represent different concepts or constructs of giftedness which are very much a reflection of the values, beliefs, ideologies and field of interest of the referred time and cultures. In primitive civilisations, for example, giftedness was equated to the survival of the fittest, to the hunters and gatherers and the gifts that the individuals possessed were perceived as the result of divine intervention (Grinder, 1985).

About two thousand years ago, a renowned Chinese philosopher, Confucius (551 – 479 BC) was the first to establish a private school and advocate teaching students according to their aptitudes. His importance lies in having been one of China's first great teachers as well as a political philosopher. His policy was to accept anyone as a disciple provided that the student was genuinely interested in learning, and this idea was certainly revolutionary in a society in which education was the exclusive privilege of the aristocracy. Eager learners were selected and brought to the imperial court. The Tang Dynasty (A.D. 1916), which cherished Confucian ideologies, foresaw four pillars of contemporary gifted education (Colangelo & Davis, 2003). Giftedness was seen by the Chinese as a multi-talented conception, giving leadership, imagination, reading speed and other talents equal value. Secondly, they noted that precocious children who demonstrated giftedness as children could grow up to be average while others who were characterised as average could show extreme talent in adulthood. A third pillar

encompassed acknowledging the role of special training in developing gifts and last but not least the belief that education was certainly a right of all children, but that these must be taught according to their abilities.

In Greece and Ancient Rome giftedness was a revered quality, often linked to the supernatural. Plato noted that a good memory and a love of labour in any line of work would be essential requirements and selected both young men and women based on intelligence and physical stamina rather than social position in order to prepare them to become heads of state. These children were groomed from an early stage and were referred to as “men of gold” in contrast to those of “silver”, “iron” or “brass”. Although it would seem that Plato was working with the brightest and best of all mankind, authors (Gallagher, 1994; Robinson & Clinkenbeard, 2008) have stated that he too was a product of his time and did not consider all children to have the same rights to education. He handpicked them from a select sample of the Patrician class and while the rest would not learn to read, these few were nurtured to develop their leadership skills to prepare them for positions that were likely to be theirs as a birthright. Notably, this concern with highly able and individuals of excellence is evident in the numerous philosophers, astronomers and mathematicians that lived in Greece and whose contributions are still around us today.

In the middle ages, giftedness was deemed as somewhat transcendental and perceived to be the works of the forces of evil. It is in Renaissance Europe where giftedness is begun to be seen somewhat more positively, albeit now linked to neurosis (Grinder, 1985). Powered by the rise of science and humanity, researchers began to focus on the individual as a subject of inquiry. The renaissancist approach that can be said to attribute the term “genius” to giftedness intrigued various researchers such as Galton and Lombroso to dedicate their attention and study to the relationship between insanity and genius. “The Man of Genius” brought to the fore a collection of men of genius who demonstrated signs of mental illnesses. Inevitably, Cesar Lombroso’s studies epitomised the then mythological view of gifted children as being anti-social, unbalanced and neurotic.

I. 1.3. Domain-general models

Invigorated with new knowledge on genetics, Galton's book *Hereditary Genius* (1869) presented a theory on genius which associated an ability that was exceptionally high as well as innate (Robinson & Clinkenbeard, 2008). Galton's views were supported by analysing the family lineage of distinguished European men where he concluded as genius ran in the family, it must be genetically inherited. His studies did not comprise of young children with giftedness as he focussed on genius-level individuals but with his focus on retrospective and prospective methods he nevertheless set the stage for the empirical study of giftedness.

At the beginning of the 20th century, British psychologist Charles Spearman found that various cognitive tests tended to positively correlate with one another. He observed that children's performance ratings, across a range of school subjects, were positively correlated, and concluded that these correlations were the influence of an underlying general mental ability that permeated through to all kinds of mental tests. Spearman (Gallagher, 1994; Jensen, 1998; Robinson & Clinkenbeard, 2008) suggested that all mental performance could be conceptualised in terms of a single general ability factor, which he labelled *g*, and a large number of narrow task-specific ability factors which he referred to as *s*. While the existence of *g* as a statistical regularity is well-established and viewed as one of the most reliable in the behavioural domain (Jensen, 1998), there is still controversy as to what causes the positive correlations between tests. In line with Galton's views, behavioural genetics has established that the construct of *g* is innate. It has also found to be a significant predictor of individual differences in many social outcomes, particularly in education and employment (Jensen, 1998). The most widely accepted contemporary theories of intelligence incorporate the *g* factor and typically represent cognitive abilities as a three-level hierarchy, where there are a large number of narrow factors at the bottom of the hierarchy, a handful of more general factors at the middle level, and at the peak a single factor, referred to as the *g* factor, which represents the variance common to all cognitive tasks. However, critics of *g* argue that there is an overemphasis on *g* which does not allow to take into account other important abilities. Additionally, a high level of *g* does not in any way guarantee success at school or in the workplace; personality, motivation and social skills are also shown to have an important role in achievement (Goleman, 1995). Researchers have

also contended that *g* is the sheer result of knowledge and skills which are valued by the dominant culture (Kaufman & Sternberg, 2007).

At around the same period, researchers were urged to find a mental scale for learners in need of an alternative education. French psychologist Alfred Binet together with a medical student, Theodore Simon (1916), developed a scale which comprised of a variety of tasks that were considered typical at each chronological age. Binet endowed this field with the concept of mental age, implying that any given child could be quantifiably ahead or behind the typical intellectual level for his/her age. These researchers brought to the fore the first tests that included an assessment of higher level cognitive skills. Neither Galton nor Spearman's tests comprised of this element. Binet also believed that intelligence was not fixed but that it was malleable (Kaufman & Sternberg, 2007).

It is this scale that Lewis Terman adapts into the Stanford-Binet scale (1916). However, Terman also adopts Galton's theory of giftedness as a single entity, limiting it to a high IQ. In the early 1920s, Lewis Terman began his long-term study of gifted children in California, whom he defined as children with IQs of 140 or more, so not more than 1%-2% of the population. His aim was to find what traits characterised children of high IQ and to carry out a longitudinal study. The 1500 children that took part had an average age of 11. These students were found to acquire language three and half months earlier and over half could read before they entered school (Terman, 1925). His follow up studies concluded that these children were healthier, better-adjusted and higher achievers in school subjects than the unselected children. He found that IQ alone could not predict success in adulthood. Personality factors, social and emotional confidence and a drive to achieve were factors that also played a role. More importantly, his pioneering work helped to disprove some existing beliefs in those times, which characterised the gifted as sickly, socially inept and not well-rounded in the various spheres of life. Hence, in the historical context of giftedness, Terman's work counteracted the earlier beliefs that giftedness and neurosis were inevitably linked (Kaufman & Sternberg, 2007). Terman also created a form of classification in which a score of 135 is described as "moderately gifted", above 150 as "exceptionally gifted" and above 180 as "severely and/or profoundly gifted". Terman goes further to suggest as early as in 1916, that students who score high on this test should be given a more

advanced level class with other superior children where more continuous and rapid progress can be made, which in his view rendered skipping grades unnecessary.

At around the same period, on the other side of the USA, Leta Stetter Hollingworth worked as a psychologist in the schools of New York. Her initial work was based on a case-study of a highly gifted boy and later her focus on children of exceptionally high IQs led her to be the author of the first textbook on gifted education, *Gifted children: Their nature and nurture* (1926). Her contributions have revolved very much around the social and emotional needs of these children. Like Terman, she considered IQ as the primary criteria for giftedness but introduced the distinction between giftedness (IQ above 130) and intellectual genius (IQ above 180). She undertook the study of the various subgroups within gifted learners and concluded that there were achievement and adjustment patterns that marked each subgroup. Hollingworth's clinical observations also posited that the higher the IQ, the harder the social adjustment to one's peers. This notion also seemed to align with the theory of neurosis put forth by Terman (Robinson & Clinkenbeard, 2008). Her other remarkable contribution is related to how these adjustment issues were counteracted with accelerated teaching materials and homogenous groupings (Kaufman & Sternberg, 2007). Hollingworth asserted that in the ordinary elementary school, children with an IQ of 140 waste half their time, whilst children with an IQ of 170 and above waste virtually all of their time (Kaufman & Sternberg, 2007).

I. 1.4. Domain-specific models

Until the 1960s, much of the concepts revolved around a reductionist view of giftedness associating it to a high level of IQ. After the 1960s, however scepticism became widespread. One such researcher, Louis Thurnstone (1938) claimed that individuals could be gifted at different levels across seven primary mental abilities: (a) verbal comprehension; (b) verbal fluency; (c) number; (d) perceptual speed; (e) inductive reasoning; (f) spatial visualisation; and (g) memory. Two examples of successful hierarchical theories which continue to have an impact on current theories of giftedness are the theory of fluid and crystallised general intelligences (Horn & Cattell, 1966) and Carroll's three-stratum theory of cognitive abilities (Carroll, 1993). Horn and Cattell's views can be summarised in the following manner: fluid intelligence is defined

as the ability to solve new problems, use logic in new situations, and identify patterns; in contrast, crystallised intelligence is defined as the ability to use learned knowledge and experience. Nowadays, both of these independent neural and mental processes are measured and used in combination when the WAIS (Wechsler Adult Intelligence Scale) is used to measure IQ. Some decades later, Carroll (1993) reanalysed over 400 data sets of cognitive ability test scores and proposed a Three-Stratum Model of Human Cognitive Abilities. Stratum I is a combination of highly specialised skills, some of which are similar to Thurnstone's primary mental abilities. Stratum II is a reflection of more specialised abilities that occur in broad domains of intelligent behaviour (fluid intelligence, crystallised intelligence, general memory and learning, broad visual perception, broad auditory perception, broad retrieval ability, broad cognitive speediness, and processing speed). Stratum III has only one ability; the *g* factor as proposed by Spearman.

Recently Carroll's model was combined to create the Cattell-Horn-Carroll model which has been influential in the various modern day IQ testing scales such as Stanford-Binet. It continues to use the concept of *g* but places emphasis on the measurement of the middle-stratum factors. As discussed by Kaufman and Stenberg (2007), despite not being theories of giftedness per se, these hierarchical psychometric definitions have contributed to the idea that beneath *g* there are hierarchically related abilities that contribute to giftedness.

In 1983 and then in 1999, Howard Gardner proposed a total of nine different intelligences to account for a broader range of human potential in children and adults. These are linguistic, logical-mathematical, musical, spatial, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and existential intelligences. The Multiple Intelligence (MI) theory challenges academic intelligence and the overwhelming usage of IQ tests. Students were no longer identified only by excellence in linguistic or logical-mathematical abilities. A wider range of abilities and sensitivity to each learner's profile had begun to be valued. Before this, students with outstanding abilities in areas such as interpersonal intelligence may not have been identified for gifted programming. According to Gardner, performance within each of the intelligences is developmental and this might or might not take place at the same rate for all of the intelligences. The MI theory purports that gifted students will demonstrate development that surpasses their peers in one or several intelligences (Gardner, 1999). These

intelligences can work autonomously and being gifted in one intelligence may not mean necessarily excelling in another. In other words, according to Gardner if a child demonstrates excellence in linguistic ability, which can be measured with IQ tests, it does not translate to the same level of high ability or even interest in bodily-kinaesthetic ability.

Gardner's theory has been criticised for various reasons. There seems to be little published empirical test of the theory in its integrity. Researchers claim that the review of the literature Gardner garners his intelligences on is somewhat selective and inadequate in regard to their psychometric reliability (Jensen, 1998). The intelligences proposed also lack psychometric validity. However, when tested adequately there seems to be strong evidence of the *g* factor, attributed to Spearman. Visser, Ashton and Vernon (2006) put together a battery of 16 tests covering eight intelligences and argue that when Gardner refers to an intelligence, these are actually capacities that are secondary or even tertiary to the *g* factor. However, Gardner argues that there is no dispute that the *g* factor exists although he argues that it is not superior to other forms of human cognition. Other researchers have highlighted that this pluralistic and multidimensional approach to giftedness is sound in that it is open to the possibility of change and development based on the dynamics between the individual and environment. In fact, Gardner proposed the intelligences as being potential capacities that can be easily applied to the educational context as well as on the teaching process at the curricular level; this aspect has strengthened MI's popularity amongst researchers in this field.

Julian Stanley, like Gardner, believes in giftedness to be more domain-specific. Stanley preferred the term "precocious" to gifted as he wanted to highlight the idea that gifted learners are precocious in a certain domain or ability. In fact, Stanley founded The Study of the Mathematically Precocious Youth at the John Hopkins University in 1971 with the objective of identifying youth with precocious specific abilities and of nurturing them with the resources they require to reach full potential.

This brings us to yet another concept which has been gaining ground in gifted education and may be relevant to the study at hand. Developmental asynchrony, the disparity between maturities in physical, social-emotional and cognitive realms are often found in gifted students (Morelock, 1992). From the lens of MI theory, intellectual asynchrony is also a characteristic of the gifted child. Morelock (1992) and Silverman (1997) both focus on a less utilitarian approach to giftedness and a more "view from

within” approach. Silverman (1997) explains that this asynchrony may increase with higher intellectual capacity; the existing unique combinations of inner experiences and awareness are distinctively different from the norm. For optimal development Silverman (1997) urges adjustments in teaching, counselling as well as parenting.

This view demands a shift in the conceptualisation of giftedness, looking beyond achievement, school testing and products. The view from within approach views the exceptionality within shaping the rest of the personality and the experiences that the child or adult will experience.

Researchers of domain specific conceptions of giftedness provide enrichment or acceleration in specific domains. Other psychological processes are not taken into consideration; these are given more emphasis in systems models conceptions of giftedness.

I. 1.5. Systems models

The idea that giftedness could be found in differing domains was already present when Joseph Renzulli developed a theoretical model of giftedness in 1978. Some giftedness experts view giftedness as a system which is garnered on an overlapping of psychological processes. Joseph Renzulli’s model involved the interaction of three sets of characteristics: above average intellectual ability (not necessarily superior ability), creativity and task commitment (Figure 1). Above average intellectual ability involves both general ability and specific abilities and is defined by this researcher as the top 15%–20% performers in any domain. It must be highlighted that this differs from the standardised measure of intelligence, as for example proposed in the *Marland Report* (1972), which is contemplated to be 3%–5%. Renzulli (1978) emphasises that no cluster of traits has any more importance than the other two and believing otherwise leads to errors in the identification process. Renzulli’s contribution to the field of giftedness also includes two different types of giftedness: schoolhouse giftedness and creative-productive giftedness. In short, schoolhouse giftedness is the one encouraged in school in the form of test-taking and lesson-learning while creative-productive giftedness are producers of knowledge. Schoolhouse gifted children are therefore superior consumers of knowledge. As is consistent with various other studies, when carrying out an extensive study, Hoyt (1965) found only a modest correlation between traditional

indications of academic success (schoolhouse giftedness) and later achievement concluding that knowledge and later performance are independent of each other. The second cluster of traits, task commitment involves a prolonged level of interest, perseverance, motivation and even self-confidence on a task. Highly productive individuals are consistently found to be characterised with task commitment related non-intellectual factors. In Renzulli's Three-Ring Conception of Giftedness, creativity also plays a fundamental role. Here, the researcher defends abilities such as flexibility, originality of thought and divergent thinking (Renzulli, 2005).

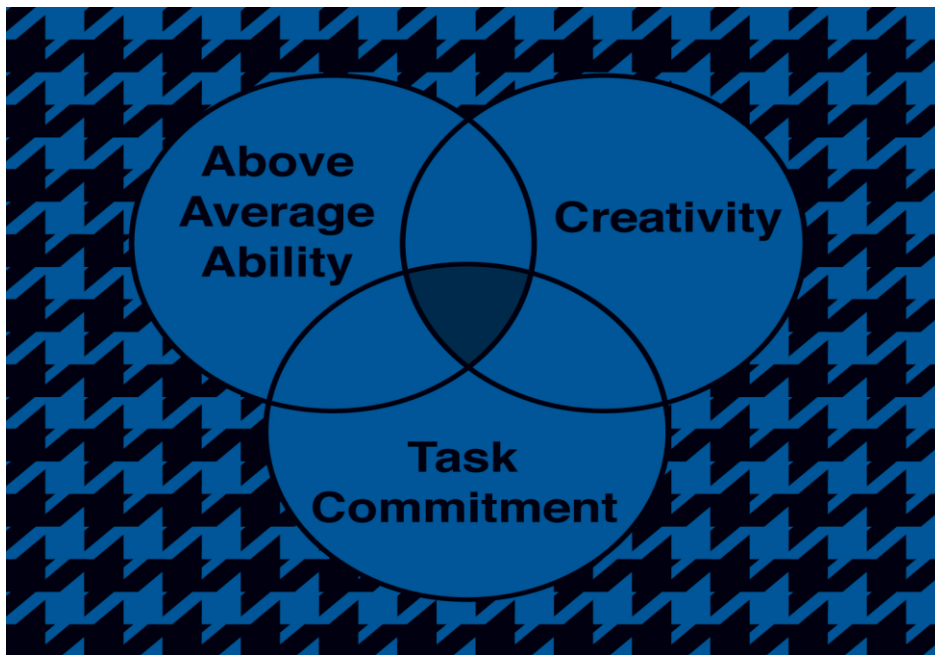


Figure 1. Three-ring Conception of Giftedness (Renzulli, p.71, 2002).

As the conception was based on data from accomplished adults, critics have pointed out the lack of correlation between later life success and the characteristics and experiences of children of various IQs (Delisle, 2003). Additionally, Renzulli's model of giftedness was seen not to be applicable to the underachieving gifted child (Gagné, 1985) who more often than not was found to be demotivated after getting through the first few years of schooling. Gagné (1985) suggests that motivation in the Three-Ring Conception of giftedness may require reanalysis. Other critics have questioned the need to be highly creative, in the sense of creators of unique and original ideas/products for a student to be identified as gifted. Gagné (1985) finds fault in Renzulli's work by

considering his selection of fields as biased. François Gagné also sheds lights on teachers and athletes as well as musicians who have reached eminence, yet not primarily with creative ability. VanTassel-Baska (2005) contends that rather than considering motivation, task commitment and creativity as primary elements of giftedness, they should be seen as the result of a talent-development process. Further on, Renzulli (2002) updated The Three Ring Conception of Giftedness to Operation Houndstooth; the houndstooth background depicted in Figure 1 represents the intertwining of personality and environment. Renzulli emphasises optimism, courage, sensitivity to human concerns, passion towards a particular field, physical/mental energy and vision/sense of destiny in this approach, taking upon a more developmental models approach. Indeed, Renzulli's models managed to draw our attention to the focus of multiple overlapping factors and hence increase the range of criteria used in identification procedures.

Sternberg (2003) is also said to be the creator of a systems model of giftedness which is conceptualised as a confluence of wisdom, intelligence and creativity. Creativity is required to produce ideas, intelligence to put ideas into practice and to persuade others of their value. Wisdom involves the concept that that these ideas will bring good to the society and not only to oneself. Sternberg does not state that gifted individuals are strong in all these aspects but they invest and develop their strengths and acknowledge and compensate/correct their less stronger domains. Critics have highlighted the little attention paid to the relationship between creativity and psychiatric disorders as well as for the lack of applicability to superior athletic performance. It is also not a useful tool to help identify nor instruct gifted learners.

I. 1.6. Developmental models

Developmental models need not to be genetic. These models do not view “giftedness” as fixed. There is a strong role placed upon nature which interacts with internal factors of the individuals to produce gifted behaviour. The Differentiated Model of Giftedness and Talent (DMGT) developed by François Gagné (1985) also counteracts one of the criticisms in Renzulli's model (see Figure 2). In this model, a child does not need to possess high potential in intellectual as well as creative ability; there is a clear distinction between what a child is capable of achieving and what the child will achieve, i.e., between potential and performance. Gagné highlights a need to

differentiate between talents and gifts as autonomous concepts and posits that natural abilities (aptitudes or gifts) can be transformed into outstanding skills in one or more fields of human performance (talents). While giftedness is viewed as superior ability, talent is superior performance. Some aspects are crucial for the development of talent and are organised into the following: (a) intrapersonal catalysts; (b) environmental catalysts; (c) chance; and (d) learning/practice. These personalological and environmental “catalysts” can have positive or negative impacts to differing degrees on the final gifted product.

The DMGT (1985) has brought tremendous contributions to the gifted education forum. Firstly, it encouraged a distinction between the talented and the gifted that were terms almost used interchangeably in giftedness literature. Kaufman, Kaufman, Beghetto, Burgess, and Persson (2008) highlight that Gagné’s model brought out the innateness in creativity and its clear autonomy from the intellectual domain. The model also allows for environmental, educational and social variables to impact the development of talent. In this manner, a sophisticated answer to a problem which exists in the Three-Ring-Conception of giftedness is found. Gagné (1985) explains very elegantly that although underachieving children may be possessors of gifts or exceptional abilities, they may not be talented academically. Another advantage lies in that when educational establishments adopt this model, they commit themselves to maximizing potential and are not looking for already high achievers (Gross, 2004).

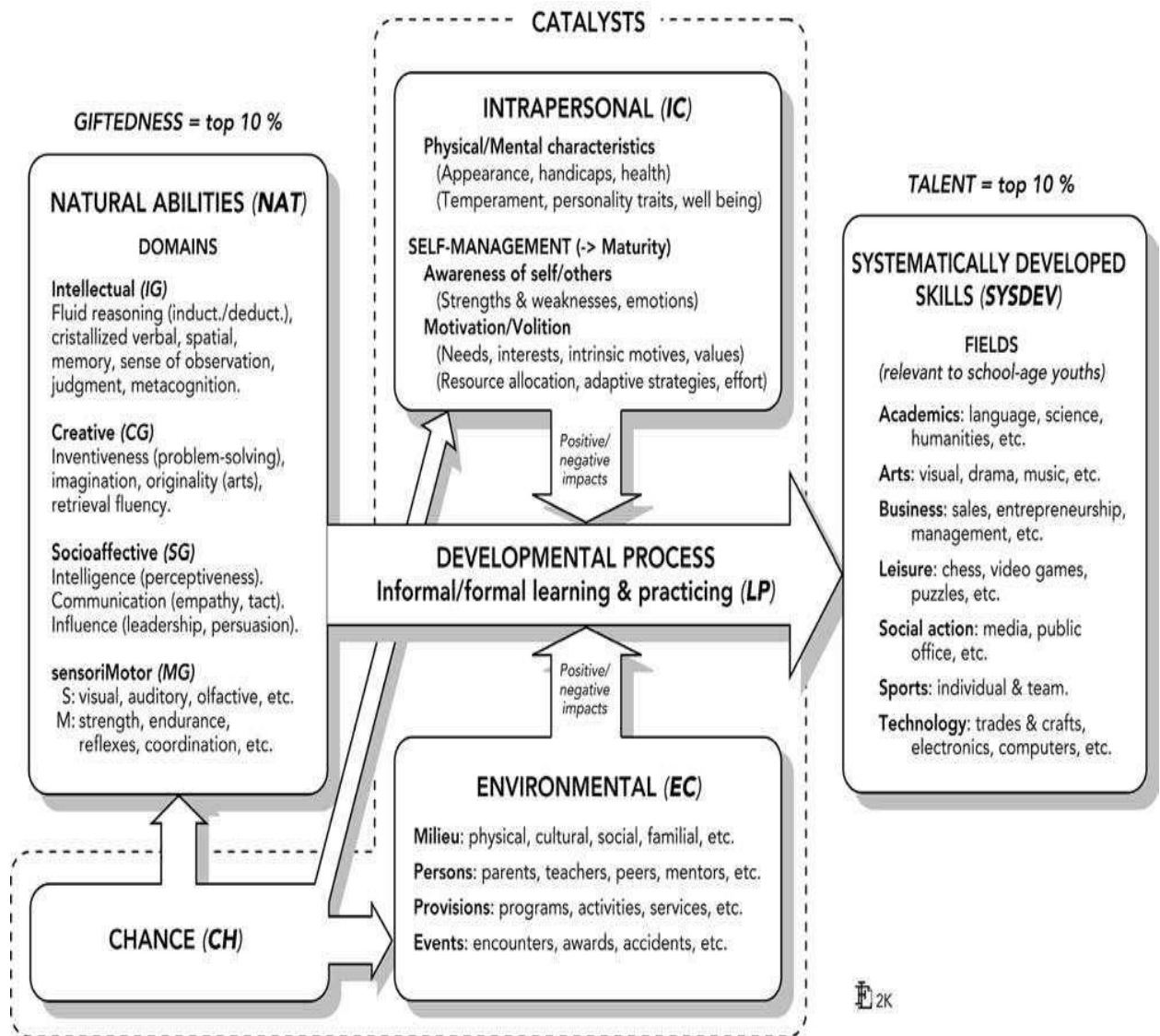


Figure 2. The Differentiated Model of Giftedness and Talent (Gagné, 2004, p. 121).

Another developmentalist, Monks (1992), modified Renzulli's Three-Ring Model to come up with the Multi-Factor Model of Giftedness by adding environmental factors such as school, family and peers to these three different variables: motivation, creativity and exceptional abilities. A further lens in which to view giftedness is presented by Tannenbaum. Abraham Tannenbaum broadened giftedness by defining it as the ability to perform or produce work that enhances the moral, physical, emotional, social, intellectual or aesthetic life of humanity (Tannebaum, 1986). His model will be

discussed in the following section. Other current conceptualisations of giftedness encompass many of the models of giftedness explored in this part of the literature review. Feldhusen, an American educational psychologist asserts that the giftedness continuum consists of psychological and physical predisposition for superior knowledge and performance in the earlier years and superior achievement during adulthood (Feldhusen, 2005). He brings together and therefore defines giftedness as the existence of genetic predisposition to giftedness (Galton, 1869), the presence of domain-specific abilities within individuals (Carroll, 1993; Gardner, 1983; Gardner, 1999) and places importance on the role of the sociocultural context which promotes and enables the display of specific talents. Personality traits such as internal locus of control, self-concept and motivation are also considered relevant variables in the drive towards excellence.

I. 1.7. A Definition?

Although there is no one universally accepted definition of giftedness, it is from having one established that can help provide the framework for gifted education programs and services as well as decide which students will qualify for services, the areas of giftedness to be addressed and even the reason they will be offered (Almeida, Fleith, & Oliveira, 2013).

One of the major references in this field is the *Marland Report* (1972) which documented a consensus definition of intelligence that encompassed the multi-faceted complexity of giftedness (Passow & Rudnitski, 1993). This report was the result of a study carried out in order to assess to what extent the needs of the gifted and talented were being carried out. It is currently one of the most widely adopted or adapted definitions in the USA.

Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities, are capable of high performance. These are children who require differential educational programs and/or services beyond those provided by the

regular school program in order to realize their contribution to self and the society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

- General intellectual ability
- Specific academic aptitude
- Creative or productive thinking
- Leadership ability
- Visual and performing arts
- Psychomotor ability

(The Marland Report, 1972, p. 8).

This definition ensued an emphasis on multi-dimensional conceptualisations of giftedness, highlighting both special provision and specific domains as well as a notable detractor of the existence of the *g* factor. Various critics of the *Marland Report* find it to be limiting; Pereira (1998) contends the lack of attention paid to non-cognitive aspects such as motivation in the definition.

Despite the multi-dimensionality of giftedness contemplated within this report, researchers have highlighted the existing danger of identification processes still reverting to IQ testing. In fact, researchers have shown concern of the various methods and procedures for identification used in different parts of North America. Although there are diverse forms of identification, the most commonly used one is a matrix that involves the collection of data from various sources (achievement tests, collective IQ tests, peer and teacher nominations, etc.). After this data has been analysed, students are submitted to an individual IQ test. However, if the student does not comply with the minimum stipulated IQ within that district the student cannot be accepted into the gifted program. Ultimately it is this one indicator that will decide whether the student will be accepted or not (Gallagher & Courtright, 1986).

Renzulli's Three-Ring Conception of Giftedness is considered one of the most influential models when defining giftedness. Renzulli's concern in providing for an operational definition is evident (Pereira, 1998). The definition he proposes encompasses an identification process, enrichment programs as well as their evaluations (Renzulli, 1977, 1978, 2005; Renzulli & Reis, 1994):

Gifted behavior consists of behaviors that reflect an interaction among three basic clusters of human traits—above-average ability, high levels of task commitment, and high levels of creativity. Individuals capable of developing gifted behavior are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Persons who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs (Renzulli & Reis, 1997, p. 8).

The concept posits an overlapping of the three clusters: above-average ability, task commitment and creativity. Renzulli also groups the intelligences into two distinct categories, one being schoolhouse giftedness and the other productive. He emphasises the importance of both forms of giftedness as well as the possible interplay between both. Schoolhouse giftedness is the type most measured by IQ or other cognitive ability tests and it is often the one used when selecting gifted students. Traditional school settings place importance on the kinds of abilities demonstrated in IQ and aptitude tests. Renzulli elaborates by stating that this kind of giftedness may be present in a lower or greater extent and it can be identified through standardised testing techniques. Renzulli also argues that general intelligence tends to remain stable over time, whilst specific abilities, creativity and task commitment are context contingent. Renzulli cautions us not to conclude that success in school relies uniquely upon IQ scores as these only account for 16%–36% of the variance found.

The field of giftedness has come a long way in understanding that IQ tests and other cognitive tests do not tell the whole story, in particular when considering creative-productive giftedness. It is this hallmark that is more difficult to recognise. Creative-productive giftedness is quite impossible to be demonstrated by a numerical value

shown on an IQ test of intelligence, achievement or aptitude test. This kind of giftedness encompasses originality of ideas and products, artistic expressions and areas of knowledge that can be considered of use to society. Moreover, in class, students challenged to this effect take the role of inquirers in contrast to consumers of knowledge.

In this definition, the most significant aspect is the interaction of the three rings. Giftedness cannot exist without this interaction (Renzulli, 2005). Although Renzulli initially stated that all three clusters were equally important, in later research he defends that they are possible in lesser or greater degrees. For example, for there to be academic giftedness, the above-average intelligence cluster might manifest itself as stronger. However, for there to be creative-productive giftedness Renzulli argues that all clusters must interact for there to be a strong performance.

Renzulli highlights the need to develop a model that demonstrates how able learners acquire and make sense of information rather than the mere accumulation, storage and retrieval of it. He argues that history does not speak of those who scored high on IQ tests but sheds light on creators and inventors, true producers of new knowledge perceived as truly gifted individuals (Renzulli & Fleith, 2002).

Abraham Tannenbaum (1986) proposed a psychosocial definition of giftedness which states that in order for a learner to become a producer of knowledge, there has to be an interplay between traits and external conditions. Hence, for Tannenbaum there is a chronological development in the consumption of knowledge and then the production of knowledge, i.e., only adults can demonstrate developed talented. He proposes a sea-star model which connects five variables (Figure 3). The variables are superior intelligence (testable general intelligence), special aptitude (a specific ability in a domain/field), non-intellective requisites (e.g., motivation or self-concept), environmental support (e.g., a nurturing family) and chance/luck (e.g., the right contacts). For giftedness to take place, all these five variables need to co-exist. Tannenbaum's definition is useful in synthesizing the literature in this field and sheds light on the variables linking childhood and adulthood giftedness. However, Kaufman and Sternberg (2007) caution us to the lack of empirical evidence surrounding this theory.

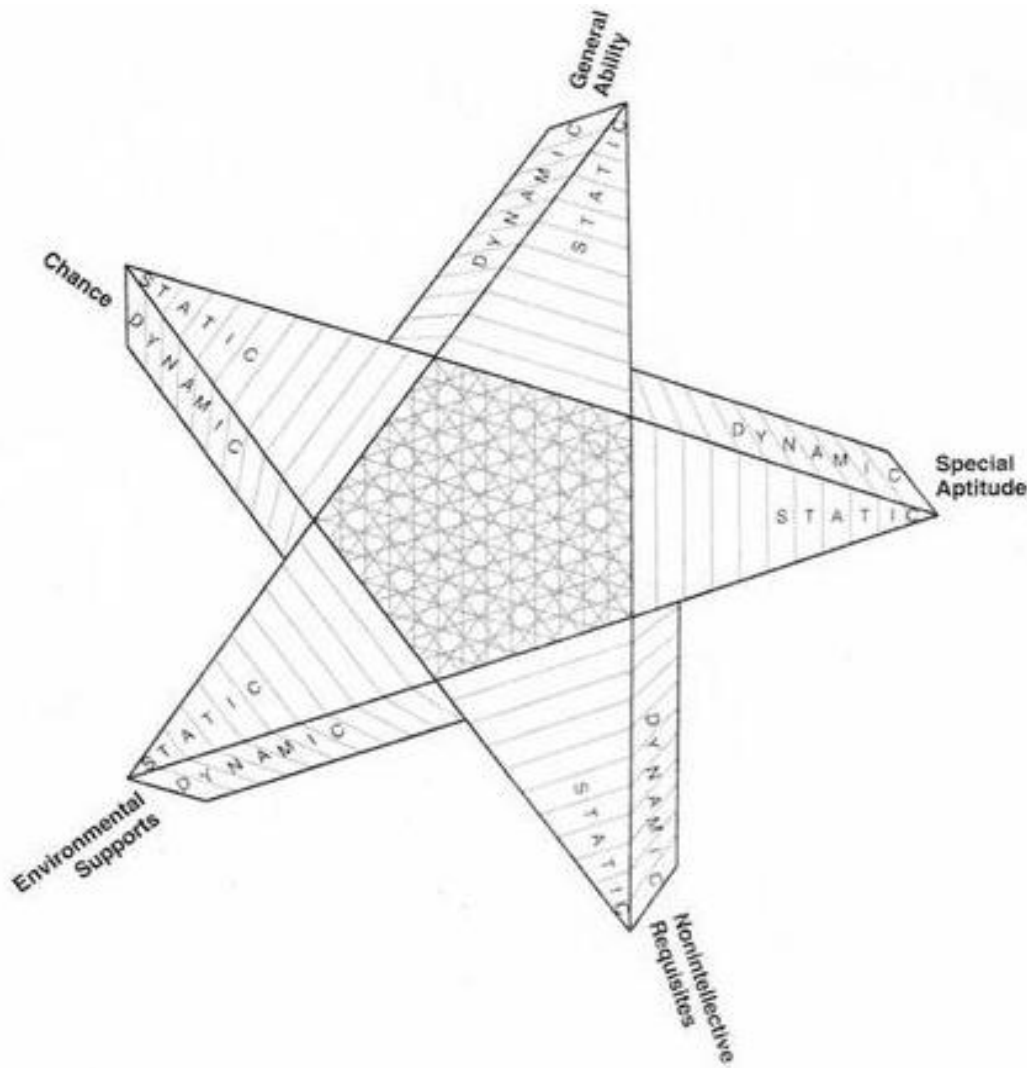


Figure 3. A psychosocial filigree of factors accounting for gifted achievements (Tannebaum, 2003, p.47).

As Cramond puts it (2004, p. 15), a “single definition would defy the principle of cultural and temporal relativity of the concept of giftedness”. She questions whether a single definition could encompass all the differences that are important and still be sufficiently specific to be of use. Cramond questions whether it is even possible to define when the definition of intelligence, creativity and talent are still fraught with disagreement.

Cramond posits that the conceptual or operational definition of giftedness reflect the programming service provided for their gifted learners. Therefore a school which may only have resources to cater for their academically gifted learners should have a definition which does not include the talented in the arts in their definition of giftedness.

There are a few other conflicting issues in what concerns the definition of giftedness. Gross (2004) warns about the existence of a difference in philosophy underpinning the different terms. For example, school systems that endorse the “gifts and talents” approach focus on developing the gifts and talents of all children. They are often seen as synonymous to children’s interests and strengths. Others view the identification of unusually precocious as elitist. The overview of the terminology within this field is discussed below.

1.1.7.1. Giftedness and Related Terms

While on a mission to decipher the meaning of giftedness, it was deemed worthwhile to consider the various surrounding terminologies that in some way or another might help to understand what giftedness is and possibly what it is not. These labels are often used either as synonyms and therefore used interchangeably or carry with them a specific notion related to giftedness which is important to analyse.

Idiot savants or the savant syndrome was first coined by the British physician John Langdon Haydon Down who used it to describe a person who has extraordinary skills in a very specialised area, but who is nevertheless intellectually disabled. A high IQ is not absolutely necessary for performance in a certain domain to be of an excellent level. In fact, savants are said to have an IQ of between 40 to 70. Typically, the skills occur in music, art, calendar calculation, mechanics or visual spatial skills. Whatever the skill, it is always linked to a memory of a habit of a procedural type, very narrow but deep. Treffert (2009) states that savants first imitate, then improvise and then create.

Child prodigies are argued to be a distinct form of giftedness. Contrary to the idea of great general ability, the prodigious child tends to have a narrower, specialised and domain-specific form of giftedness. Feldman (1993) argues that these children are evidence of the multiple nature of giftedness and expression of talent within specific domains. Prodigies refer to children who perform an activity which is highly uncommon for their age and that have received extensive training in the field. Normally, these children are identified at pre-school age and are able to come up with products before the age of 10. It is important to highlight that prodigiousness in childhood does not always predict eminence in adulthood. This might even shed more importance to the role played by the environmental factor in giftedness in either aiding or hindering the

path towards excellence. As Pereira (1998) questions, would Mozart have been able to manifest his talent if his father had not been a musician or if he hadn't had a piano at home? Moreover, the fact that there exist savants and prodigies in a particular domain is taken to be a critical criterion for the existence of an intelligence which is very much in line with Howard Gardner's (1983) important work on multiple intelligences. As various researchers have expressed, prodigiousness is the careful intertwining of various overlapping factors.

The word genius was thoroughly defined by Francis Galton and therefore strongly linked to genetics. According to the British researcher, there is a 1/1000000 probability of this happening (Galton, 1869). Later this term was applied to individuals who demonstrated an IQ above 180; nowadays, however, it is used to refer to those that display intellectual capability, creative productivity, originality associated with the achievement of new advances in a domain of knowledge and are also a positive influence in their given field (Pereira, 1998).

When using the term precocious, timing plays a vital role. A child is considered precocious when he/she displays exceptionality at an unexpected early age. As verified in the literature presented, gifted children may show signs of precocious behaviour in language for example and yet not necessarily display giftedness as an adult. Although there is still relative debate around the issue, cognitive maturation of a human being is said to fluctuate considerably before the age of 13 (Castelló, 2005). Prieto and Costa (2000) go on further to say that precocity is an unreliable indicator of giftedness and that caution must be taken when predicting giftedness, as complexity is achieved with time; environmental factors also require the element of time to impact giftedness.

It is evident that giftedness and talent are fluid concepts and will be defined differently in different contexts and cultures. Gagné brings our attention to the usage of both gifted and talented as interchangeable in scientific literature, in particular American literature. In the past, researchers such as Robeck (1968) have considered a hierarchical difference in terms of IQ, assuming talented to be those that score between 130 and 145 and scores between 145 to 160 to be considered gifted. Gagné (1985) highlights that both encompass entirely separate ideas. Gagné differentiated both as above-average competence in human ability and the other as above-average performance in a particular field. There is an association made to giftedness as being innate and talent being related to the expression of these "gifts". As referred to in the

developmental models section above, Gagné distinguishes between potential and performance, implying that one may be gifted and various catalysts such as motivation, personal, educational and other variables determine the development of this potential into exceptional performance. Gagné argues that it is possible to be gifted and yet not talented as in the case of underachievers. As predicted by Pereira (1998), it seems that the current scientific community often prefer to use gifted and talented contrary to gifted which is traditionally associated to a high IQ and fits more adequately to the more multi-dimensional view of giftedness. Although preferences may prevail, both terms will be used interchangeably in this thesis. In Portuguese literature it seems that both '*sobredotação*' and '*crianças com altas capacidades*' are used. Whilst the former can be said to be loosely translated to giftedness, the latter corresponds to children of high ability. Future studies could attempt to understand if both terms carry with them different connotations.

These terms coexist, sometimes harmoniously and other times less satisfactorily. It is also evident that the concept of giftedness has changed over time from simpler models placing sole emphasis on giftedness and relying on IQ as a means of identifying giftedness to more complex models that emphasise general/specific abilities, creativity and influence of personality and environmental factors and the usage of multi-dimension measurements. As a result, these models and theories have been applied as frameworks by different educational agents in different countries to identify and cater for gifted students. The lack of consensus in a satisfactory definition led Gagné to claim that the concept of giftedness is made more difficult to defend as "it is defined too loosely while being measured too restrictively" (Gagné, 1995, p.104).

Despite extensive efforts to broaden the definition and assessment of giftedness, it must be said that IQ scores still remain a standard way for admission to specialised programs for the gifted and talented today (Colangelo & Davis, 2003). The problem lies not only in the conceptualisation of the gifted but also a need to analyse and refine batteries of tests and ensuring their validity in specific populations. An overview of the identification procedures of the gifted will be discussed in the next section.

I. 1.8. Identification

In practice, IQ is still the most powerful criteria for the identification of the gifted; an IQ of 130 or above will determine in many places whether a student can be accepted into a special educational programme.

Assessment has two main purposes: eligibility program development and monitoring progress. More specifically, identification of the gifted has become more challenging today than in earlier times due to the acceptance of the multi-dimensionality of the concept. Certainly, at the start of the gifted education initiative, there is inherent trouble in attaining consensus regarding identification processes.

As common sense would imply, the earlier the identification, the sooner the possibility of intervention to enhance pupils potential. Silverman (1992) states that gifted children can be identified at the age of three although the most appropriate age is between five and eight years old. After age nine, children may reach the limits of the test and socializing may conceal their abilities. However, other authors such Melo and Almeida (2007) warn us that the earlier the identification, the less precise it can be. Authors emphasise that it is only at the age of 12-13 that neurological maturation stabilises (Castelló, 2005; Melo & Almeida, 2007). Moreover, identification in the early years may not help understand truly whether the child is prodigious, precocious or gifted. Bahia and Oliveira (2013) defend the need for an early identification, yet highlight that this is not essential in order to label the child but useful in that it allows to nurture students appropriately. Their position underpins the idea that giftedness should be viewed as more of an emerging process than a product.

The lack of consensus in identification procedures reflects the lack in the definition of giftedness. Hence, multiple assessments are necessary. Passow (1981) defends the need of a range of techniques and procedures and instruments to identify gifted and talented children to differentiate their educational experiences. Moreover, in this manner reliability of such identification can also be increased.

According to Brown, Avery, and VanTassel-Baska (2003), no one sole test score should warrant or prevent student eligibility for services. The decision of a student's eligibility must encompass a multi-disciplinary team involving both a certified school psychologist and the parents of the child. According to these authors, this should result in about 4% of the total student population being identified as gifted.

In any case, both objective and subjective procedure assessments are required. Giftedness can be identified through observations, rating scales, checklists and standardised tests. However, some procedures are frequently recommended. These include measures of intelligence tests, achievement tests, measures of reasoning, creativity and/or problem solving.

1.1.8.1. Tests of general intellectual ability

As traditional conceptions of giftedness have focussed on intelligence as the primary, if not exclusive defining variable, it is natural that intelligence measures are commonly used. There are two kinds of IQ tests: Group administered tests, such as the Cognitive Ability Test (CogAT) and the individually administered test (e.g., Wechsler Intelligence Scale for Children – WISC IV). The former is not only more costly but also requires testers to have more professional training, despite being more accurate (Almeida et al., 2013). In the national context, as not all schools have a school psychologist, these measures are often not possible to carry out. Additionally, Vilas Boas and Peixoto (2003) and Colangelo and Davis (2003) point out that traditional testing does not necessarily allow for the identification of gifted students who speak different languages and come from different backgrounds or cultures. To counteract this, non-verbal tests are applied. As a form of reducing errors due to cultural bias, testers have reverted to lowering the cut-off point when assessing, i.e., although normally it is 130, when students from underprivileged backgrounds or from ethnic minorities are assessed, this cut-off point is lowered to 115 or 120 (Almeida et al., 2013).

It is important to highlight that standardised tests use a form of norm-referenced testing. This means that the individual's performance is determined by comparison to the members of the norm group. These measures ideally reflect the full range of the population. However, many norm reference testing should include high or low extremes to represent the variance of those specific populations. This ceiling effect is the upper limit of an intelligence or achievement test. When a child hits the ceiling, it means that the questions were inadequately challenging in order for their ability or knowledge to be measured. In these cases, children are demonstrating their lowest score possible. Therefore, often norm-referenced tests put advanced students at a disadvantage. These tests can be considered somewhat of limited value when organizing gifted programs and

monitoring progress. Some assessment procedures such as WISC-IV have in fact instilled counteractive measures within them.

Measures of giftedness have traditionally reverted to intelligence tests which do not encompass all the multidimensionality of giftedness. Exclusively relying on IQ tests leave out creativity, divergent thinking and other personality measures, overlook learners that underachieve or have emotional and behavioural problems as well as carry the danger of the lack of predictive validity of these measures in earlier ages. As stated by Brigham and Bakken (2014), relying on any one measure to the exclusion of others is a sign of poor assessment practice.

1.1.8.2. Creativity tests

Creativity is a complex and multidimensional concept which in itself is difficult to measure (Nogueira & Bahia, 2004). Whilst intelligence tests measure convergent thinking, divergent thinking can be measured using creativity tests. Creativity tests can help measure fluency, flexibility, originality, creativity, insight and the elaboration of ideas and productions. As can be noted, these measures are independent from academic learning. According to Torrance (1984), by not including measures of creativity, a substantial proportion of creative students can go unnoticed. Using one test is insufficient to identify gifted students, as efficiency can only be reassured through combination with other instruments (Gray, McCallum, & Bain, 2009).

Various measures of creativity are available including the Guilford Divergent Thinking Tasks (Guilford, 1967) and the Torrance Test of Creative Thinking (Torrance, 1984). Of these, the TTCTT is the most popular amongst experts. However, as divergent thinking tests assess only a part of creativity, Morais (2003) suggests a need to complement the process of identification in this domain with self, peer and teacher nominations as well as other procedures.

1.1.8.3. Achievement tests

Another critical element in the assessment of giftedness are achievement tests. A type of commonly used group-administered test is the Scholastic Aptitude Test – II Measures of achievement. These assessment forms are designed to ensure overall knowledge of various subjects as well as their skills in reading, maths, writing and other

areas (Gray, McCallum & Bain, 2009). It must be highlighted that achievement testing is not a standardised form of assessment across schools and is domain specific, which means that gifted students could achieve in one test and not the other which may lend itself to overlooking some gifted students (Maitra, 2000).

1.1.8.4. Subjective identification procedures

1.1.8.4.1. Teacher nominations

The first step considered by schools to identify students for participation in a gifted program is to involve teachers in putting forth nominations for gifted assessment. If gifted abilities are shown in the classroom, teachers should be able to identify students with outstanding abilities and capabilities. Often the opinion of an experienced and skilled teacher is accepted as a reliable procedure in identifying a gifted child. In Portugal, nomination by teachers are the most used means when selecting students for enrichment programs (Almeida et al., 2013).

However, teachers are often not qualified to nominate gifted students because of their lack of knowledge and awareness of the characteristics of the gifted (Nogueira & Almeida, 1988). Authors have referred to the teachers' overreliance on cognitive abilities and academic abilities (Guskin, Peng & Simon, 1992; Moon & Brighton, 2008), while overlooking creativity as indicators of giftedness. Kuo, Maker, Su, and Hu (2009) highlight that the students that teachers tend to overlook as gifted (false negative) either underachieve, are from underprivileged backgrounds, ethnic minorities (Szymansky & Shaff, 2013), have learning difficulties or emotional and behavioural problems. Girls are also often overlooked. Teachers are also often found to make inaccurate judgments about gifted children at the earlier ages. However, researchers have found that the efficiency of such identification appears to increase with older children. For example at the secondary level, teachers are found to be more accurate when nominating students.

One of the most commonly used scales for teacher nomination is Scales for Rating the Behavioural Characteristics of Superior Students. In order to obtain more objective data, other forms include analysis of the child's portfolio of work and even structured interviews.

1.1.8.4.2. Parent nominations

Parents nomination can often be more accurate than teacher nominations in identification of gifted pre-school and primary school pupils, i.e., in younger ages. Candeias et al. (2003) state interestingly that when parents identify giftedness in their offspring, their perception of the concept is multidimensional in that they include cognitive, motivational and socio-affective characteristics. It is this global vision that the parents have that the author suggests to be of extreme importance. In contrast, Almeida et al., (2013) request for caution as parents may either over or underestimate their children's capabilities; parents who have higher academic qualifications tend to underestimate their children's capabilities whilst experience with gifted families shows that some parents fear labelling their children as different or as gifted. The authors go on further to say that parents fear the pressure labelling may exert on the children, and on themselves as educators of their own children while confronting an educational system which seems far from capable of catering for the various needs of this population. In order to reduce biases and to improve the accuracy of identification on parents' behalf, it is recommended that questionnaires, rating scales and checklists be implemented.

1.1.8.4.3. Peer nominations

Peer nominations are used for older gifted students in the form of a checklist or questionnaires and more often to collect data on characteristics such as leadership and creativity. This data is of course vulnerable to aspects such as peer rivalry, students' social adjustment problems, underachievement and students that are from underprivileged backgrounds may or may not be evaluated fairly (Maitra, 2000).

Researchers have often presented not only conceptions but often identification procedures with them too. Reis and Renzulli (1982) put forth a system which connects both the Enrichment Triad Model (Renzulli, 1977) and the Revolving Door Identification Model (Renzulli, Reis, & Smith, 1981). This model aims to provide enrichment activities to more students in a school context – not the common percentage of 3%–5% of the school population. Both contributors gather that opening up

possibilities for a broader range of students aids in reducing the attitudes of elitism and negativity surrounding the opportunity of specialised provision to these learners.

Renzulli argues that studies have shown that it is the top 15%–20 % of students demonstrating above-average ability (not superior ability) that have probabilities of developing task commitment and creativity and therefore giftedness. Additionally, research has shown that the activities typically used in these programs work very well with these students. This talent pool is identified using four kinds of data: (1) information from standardised intelligence tests, cognitive ability tests, creative tests etc.; (2) nomination by peers, parents and teachers as well as self-nominations; (3) sociometric data derived from peers; and (4) actual performance evaluation through accomplished products. All of these students then participate in an enrichment Type I program. These activities are a series of exploratory activities designed to put them in touch with fields which are not part of the regular curriculum, i.e., field trips, conferences, presentations etc. Students are also encouraged to explore their own area of interest further. Type II activities are designed to develop critical thinking, divergent thinking, inquiry training, personal and social development and others. The experiences themselves revolve around the materials, methods and instructional techniques. Type III advanced learning revolve around individual or small group work that aims to investigate a real, concrete problem. Here, students are encouraged to think and work as professionals; they determine the problem, select an appropriate investigative method and come up with a product. Renzulli and Reis (1982) give examples of children having created a walking robot and having analysed the effects of acid rain over the period of a year. Renzulli and Reis (1982) state that above average students are provided Type I and Type II activities on a regular basis and other regular students are offered it periodically. The students who demonstrate interest in these activities will have the possibility of revolving into Type III activities.

The principle underpinning the movement from each Type is action information. This concept assumes that when students are extremely interested or intrigued about an idea or interest, he/she will be compelled to be more committed, involved and more productive too. The transiting from one revolving door to another is decided upon via assessment and continuous observations collected during the activities. This assessment provides yet another level of identification which in turn may help minimise any problems borne out of pre-selection. Additionally, this model goes as further to include

a possibility of special nominations so that the probabilities of overlooking any talent pool members may be minimised. It is this aspect which distinguishes the RDIM model from many others. It is also a reflection of the concept provided by Renzulli. The flexibility inherent in the process of identification is coherent with giftedness being developmental. Renzulli promotes task commitment and creativity as the result of the various set of experiences proposed in this model, contrary to pre-determined conditions for entry to a program. Renzulli requests that we lose our idealist need of wanting to know who our gifted learners are on the first day of classes and urges a focus towards developing gifted behaviours. Foregoing this “bureaucratic tidiness” will result in a fairer and more democratic identification process. Aspects that are related with divergent thinking and creative-productive giftedness are those mostly valued by society. Renzulli reiterates the need to refrain from falling prey to easy and objective measurements and relying on these as the major driving forces of an identification process.

In Portugal, more specifically in the autonomous region of Madeira, where more work in the area of identification of the gifted can be seen (Antunes & Almeida, 2008), the school of thought is closely linked to Renzulli’s definition of giftedness. Pocinho (2009) describes the approach to identification as being multi-referential (records from parents, teachers, relatives), multicontextual (home, school, social, etc.), multi-method (various identification procedures) and multi-temporal (longitudinal, transversal). The identification process is carried out by a teacher, a psychologist and a professional from the gifted field. Tests used consist of the Griffith Development Scale, Raven’s Progress Matrices, Torrance Tests of Creative Thinking, Abstract Intelligence Test and WISC III. These are used in conjunction with nominations from teachers, parents and relatives, anamneses and reports on children’s hobbies and interests. Identification of the students range between 2%–5% of the regional school population which is within the range of 3%–5% proposed nationally (Pocinho, 2009) and the 3%-10% stated by EURYDICE (2008). The identification, enrichment programmes and the monitoring phases are all conducive to a school of thought where giftedness is perceived as an emerging process and where opportunities are created and talents stimulated.

Heller (2004) defends the need of having various phases in the identification process, in part similar to the one proposed by Renzulli (2005). Heller recommends an initial screening to all students, then a need to identify 20%–25% within that field.

Interviews and individual tests can then be used to identify the top 5% and the last step would involve identifying the top 2%–3% that would require the special provisional measures.

An identification carried out solely on the basis of quantitative measures may increase the probability of the occurrence of two types of errors: a student might not be identified and is gifted (false negative) and one that is incorrectly identified as gifted (false positive) (Almeida & Oliveira, 2013; Pocinho, 2009). Moreover, giftedness should not be reduced only to cognitive psychological variables either; aspects such as risk-taking, perseverance, anxiety-management and others should all be evaluated (Almeida, Lobo, Almeida, Rocha, & Piske, 2017).

Heller (2004) contends that the difficulties inherent in the definition of giftedness lead to the difficulties in the measurement of giftedness. The difficulties are reflected in what to assess, why assess, what methods to use in order to measure giftedness and when to use them.

Lack of preparation in professionals will also hinder the process of identification. Familiarity with the multi-dimensional array of measuring techniques, and their application and interpretation and more knowledge of giftedness are factors which are considered fundamental in the execution of more accurate identification procedures (Almeida, Araújo, Sainz-Gomez, & Prieto 2016). Almeida et al. (2016) expound on this by drawing attention to the lack of training in giftedness in initial and ongoing training. Studies show that more explicit training in the identification procedures lead to more precision in assessment of the gifted population.

It is also important to note that research has shown that the involvement of varied agents and sources of information have enhanced the identification process. While parents play an important role in the early years of identification, teachers and peers as well as other informal and formal sources of information take progressively more of a prominent role (VanTassel-Baska, Feng, and Evans, 2007).

In order to create a more accurate and just manner in which to identify gifted students from special populations, Almeida et al. (2016) recommend the use of (i) an array of multiple sources as measures; (ii) cultural and linguistic bias free measures; and (iii) the use of a team of trained professionals to individually assess each case study. It should be kept in mind that the multi-method approach is absolutely vital. As Renzulli

(2005) explains, giftedness occurs in some people, in particular circumstances and in certain moments. He further asserts that it is our mission to provide a wide range of experiences for this potential self-expression to take place. Renzulli adds that “when it comes to identification, it is far better to have imprecise answers to the right questions than precise answers to the wrong questions” (Renzulli, 1984, p.164).

I. 1.9. Characteristics

As conceptualisations of giftedness have altered, so have the characteristics associated to it. This is not only due to the heterogeneity existing within this population but the process of characterisation is made even more complex as these vary by gender, cultural and language practices, sociocultural group and manifest differently among children with disabilities and among underachievers (Reis & Small, 2005). Hence, there is not a profile that can describe a gifted individual. However, understanding the existing range of characteristics may help educators provide differentiated learning experiences and nurture these gifts and talents. In the following section, the characteristics will be divided into: (1) cognitive; (2) socio-emotional and personality characteristics; and (3) motivational characteristics.

I. 1.9.1. Cognitive characteristics

Cognitive abilities can be divided into convergent thinking, which is mostly associated to IQ, and creative or divergent thought processes. The relationship between both is still rather uncertain. One of the more prominent ideas, suggests that for high-level creativity to occur above average intelligence needs to exist (Jauk, Benedek, Dunst, & Neubauer, 2013). Rather than viewing intelligence as IQ, there is now some emphasis being placed on cognition such as problem-solving strategies. Giftedness is characterised by advanced synthesis and comprehension of ideas, flexible and accelerated pace of thought processes, an ability to retain large amounts of information as well as the ability to see relationships among ideas (Almeida, 1994; Clark, 2002). Gifted students appreciate intellectual challenges, prefer more complex to simpler tasks, are curious and pay attention to details that their peers do not (Aydin, Coskin, Kaya, & Erdonmez, 2011). They pursue reading and reiterate complex structures before the age

of two or three and are found to read by the time they enter school (Daniels & McCollin, 2010; VanTassel-Baska, 1996).

Gifted children are also found to use metacognitive processes, i.e., this involves thinking of their own ways of remembering and understanding. Rogers (1986) and Cheng (1993) reviewed literature and found that superior metacognition ability is an essential component of giftedness. How children solve problems by monitoring, self-control, self-instruction and evaluation has been demonstrated to play a key role in the resolution of a difficult task (Sternberg & Davidson, 1986).

The cognitive abilities mentioned above have a direct impact on academic learning. Gifted learners learn at a faster rate, in more depth and make associations and links to other thoughts and ideas. Gifted learners are often creative in that they are fluent and flexible thinkers, able to generate possibilities, consequences or related ideas. They are also flexible in their thought process in that they can generate various alternatives and approaches to problem-solving. However, high level cognitive abilities are not sufficient on their own for creative production (Morais, 2007; Torrance, 1984). Evidence suggests that a link to personality variables such as motivation, persistence, the courage to express opinions and ideas also play a role in creativity (Bahia, 2007).

1.1.9.2. Socio-emotional & personality characteristics

Despite recent growth in the study of socio-emotional characteristics of the gifted, there seems little explored in comparison to cognitive characteristics, gifted programs and the special needs of this specific population (Alencar, 2007).

Despite an association between maladjustment and gifted learners, recent studies seem to contest this (Fleith, 2007). This seems only to be a slight possibility when referring to either underachievers or extreme intellectual giftedness (Alencar, 2003). In fact, various studies point towards gifted students' adjustment to be similar or better than that of their peers (Reis & Renzulli, 2004). Various researchers have emphasised that gifted children seem to favour democratic and positive interactions with peers and are often preferred by their peers. On the other hand, others highlight a less conformist and more independent nature among gifted children as well as a more dominating and competitive nature which may lead to less popularity, in particular in the adolescence phase. Neihart, Reis, Robinson and Moon (2002) conclude that this group of children do

not exhibit neither higher signs of depression nor suicide. In fact, gifted individuals seem to show characteristics of resilience in terms of better self-efficacy, high levels of curiosity, a strong sense of morale, a good sense of humour as well as low anxiety (Robinson, Shore, & Enersen, 2007).

Another possible characteristic is asynchrony which is a mismatch between the cognitive, emotional and physical development of gifted individuals (Morelock, 1992; Silverman, 1997). For example a student may have very advanced intellectual skills and yet be lagging behind in terms of fine motor skills or social skills (Fleith, 2007). This mismatch may be the cause of certain emotional vulnerabilities. Expectations of the educational agents need to take this potential asynchrony into account.

Recently, emotional intelligence in gifted learners has piqued researchers' interests. Emotional intelligence is specified as self-awareness, managing feelings, self-motivation, empathy and social competence and is currently an area with a growing body of research. A study by Lee and Olszewski-Kubilius (2006) examined the level of emotional intelligence, moral judgment, and leadership of more than 200 gifted high school students and found that gifted students were not advanced in emotional intelligence when compared to their peers. What research is more conclusive about is that gifted learners demonstrate levels of moral judgement, idealism and justice and an unusual sensitivity to the feelings of others (Mayer, Perkins, Caruso, & Salovey, 2001). Gifted students are also found to demonstrate strong leadership skills.

According to Dabrowsky (1964), gifted students often demonstrate excitabilites in either psychomotor, sensual, intellectual, imaginal or emotional domains. Dabrowsky asserts that gifted students have multiple intensities in some of these areas. These heightened sensitivities, especially inherent in creative gifted individuals, result in distinctively different life experiences. Researchers have written about how these emotionally intensive characteristics are often mistaken as emotionally immature characteristics (Almeida et al., 2013). Others assert that these excitabilites are prevalent in exceptionally highly gifted students or highly creative individuals only (Piechowski, 1997).

1.1.9.3. Motivational characteristics

Both Gagné's and Renzulli's concepts of giftedness involve motivation as a determining factor for giftedness. Motivation plays a vital role in the pursuit of challenge, task involvement as well as intrinsic and extrinsic motivation. Studies seem to show that gifted and talented children possess more intrinsic motivation and autonomy than their non-gifted peers. In a study carried out by Gottfried & Gottfried (1996), where a longitudinal study with children ages nine to 13 was carried out, the authors found a higher level of intrinsic motivation towards all subjects as well as school in general. Additionally, it seems that they tend to attribute their own successes and failures to themselves, relating success to their effort, capabilities and failures to inadequate choice of strategies (Almeida et al., 2013). This suggests a strong internal locus of control. Almeida et al., (2013) go further to say that gifted children have the potential to invert a low-achieving situation into a successful one by restructuring their study methods and by linking their academic success with their personal objectives. Along the same lines, Knight's (1995) research claims that underachieving students demonstrate an external locus of control.

Motivation is also linked with the establishment of learning goals. Gifted learners may set extremely demanding goals for themselves or very low ones which may either result in great performance or a situation of underachievement which may negatively impact the child's self-esteem. Unrealistically high expectations may impact 15%-20% of gifted individuals, hindering their academic careers. At times, gifted individuals may also demonstrate a high level of perfectionism (Silverman, 2007). Authors bring our attention to geniuses such as Chopin, Beethoven and Tolstoy who laboured endlessly over their masterpieces until they accomplished their ideal. This kind of perfectionism can be the catalyst to promote excellence. However, research has also related perceived failure with depression, anxiety and even suicide (Hayes & Sloat, 1990).

Gifted students' self-efficacy seem to be high especially as regards to the academic sphere. Feldhusen (1989) refers to how the self-concept that the gifted hold of themselves interacts with motivational states and helps drive them further to set goals, produce and create. There also seems to be gender differences in self-efficacy. For example researchers have demonstrated that boys have higher self-efficacy in

mathematics while girls seem to view themselves as more competent in verbal skills (Junge & Dretzke, 1995).

As professionals in the field attempting to curb underachievement, it was considered important to highlight some characteristics of the gifted underachiever. Alencar (2014) lists the following: low self-esteem, external locus of control, irritability, depression, anxiety, a need to be accepted by their peer groups and impulsive behaviour.

1.1.9.4. Characteristics of the Linguistically Gifted Child

The ability to learn easily and rapidly due to more efficient information processing (Almeida, 1994; Almeida, et al, 2013; VanTassel-Baska, 1996), their retentive memory (Almeida, 1994; Deveau, 2006; Garfinkel & Prentice, 1985), the ability to think in abstract levels with more complexity (Clark, 2002; Winner, 1997) and finding associations between concepts (Almeida, 1994; Deveau, 2006) as well as their wide range of interests (Garfinkel & Prentice, 1985) are some extensively reported characteristics of gifted learners. It can be said with relative ease that the general aptitude in communication skills and higher order thinking can only lend itself to a high aptitude in the mastery of a foreign language. In addition, researchers have also found great gifted learners' to be highly motivated in the acquisition of foreign languages (Okan & Ispinar, 2009; VanTassel-Baska, 1996).

Although the quantity of research on the specific traits and characteristics of linguistically able learners is far from desirable, studies seem to have reached consensual grounds on some aspects. In the particular interests of this thesis, Lowe (2002) suggests the following characteristics of an able language learner:

- Interest in “difference”; openness and empathy to foreign cultures;
- curiosity about how language works and interest in form for its own sake;
- recognition of grammatical patterns and the function of words in sentences;
- use of technical vocabulary to discuss language;
- use of linguistic and non-linguistic clues to infer meaning;

- ability to identify and memorise new sounds; good listening discrimination skills;
- ability to reproduce the sounds of the language;
- flexible thinking;
- good memory;
- ability to extrapolate general rules from samples;
- ability to apply principles from known languages to the learning of new ones;
- effective communication strategies: uses paraphrase; borrows from L1; circumlocutes; identifies with hearer;
- intuitive feel and “flair” for the language;
- ability to make connections between items, between what is known and what is new, to make jumps in understanding;
- curiosity about meanings and the “why” factor;
- ability to assimilate “chunks” of language meaningfully;
- attention to detail; keen to produce accurate language;
- liking to do things with language; putting things together in creative and imaginative ways;
- independence, concentration, perseverance, risk taking;
- awareness and use of a range of strategies to learn; and
- mastery of L1.

(Lowe, 2002, p.143).

In a similar line of thought, Deveau (2006) underlines the capacity for learners to create links between grammar, different language systems, meanings and adds the ability for gifted language learners to code switch and the ability to view language as a holistic system. Deveau adds that gifted language learners are able to understand and are intrinsically motivated in learning about languages as a tenet of an interconnected world.

Interestingly, gifted language learners also seem to engage in intellectual play with the use of puns and often have a good sense of humour. Piirto (1999) also mentions learners’ sensitivity to social, moral and ethical issues which can often be seen in the

works developed. These works often include paradoxes, visual imagery, melodic combinations and unusual adjectives/adverbs.

It is essential to keep in mind that gifted learners are not a homogeneous group and often demonstrate varied mixtures of attributes and may have strengths in some aspects and not others. This linguistic sophistication, however, characteristically observed amongst gifted learners must be esteemed and promoted as abilities in the language classroom (Hoh, 2005).

I. 1.10. Conclusion

This section of the literature review undertook the task of understanding the concept of giftedness from a historical perspective to its various current, yet challenging conceptions. While domain-general models sought to answer questions about the identity of giftedness, systems models research found evidence for the multidimensionality of giftedness. More modern conceptions are a result of the evolution of these thoughts and have resulted in developmental models of giftedness. These developmental models place due importance to variables such as the environment and intrapersonal characteristics. An ideal definition of giftedness needs to be specific and operational, yet not so specific as not to entail the various kinds of giftedness that exist. The range of terms encountered amongst gifted literature, identification procedures as well as characteristics of the gifted have been discussed. Lastly, specific characteristics and traits of the able language learners were analysed.

I. 2 What are Teachers' Perceptions and Attitudes Towards Gifted Students?

Acknowledging that students learn at different speeds and that they differ widely in their ability to think abstractly or understand complex ideas is like acknowledging that students at any given age aren't all the same height: it is not a statement of worth, but of reality (Tomlinson, 2001, p. viii).

I. 2.1. Introduction

The Institute for Educational Leadership (2001) declared that “student learning depends first, last, and always on the quality of teachers” (p.1). What is inarguable is that teachers make a difference and although this is true for all students, some authors have suggested that this impact is further exacerbated in gifted students.

It is with teachers that gifted learners spend most of their schooltime trajectory. Most teachers will probably have little to none training in gifted education. When asked to nominate students for gifted programs or to structure differentiated activities, teachers will certainly be influenced by their own conceptions and attitudes of giftedness. Various studies show that teachers’ attitudes and perceptions influence their behaviour in the classroom; these have a direct impact on strategies and methods used to maintain a positive learning environment (Kupermintz, 2003).

In the field of gifted education, an in depth study of the attitudes of general education teachers is paramount. Without further exploration of this field, gifted education advocates who strive towards curricular and instructional changes in order to challenge and stimulate gifted students are left unarmed and uninformed about ways to move forward. In a study carried out to second and third cycles in Portugal, teachers were found to perceive gifted students to be cognitively outstanding but teachers’ perceptions of the gifted also seemed to indicate an association between giftedness and inadequate behaviour (Silva, 2008). This concurs with evidence from studies where teachers associated superior cognitive abilities as well as social adjustment issues as characteristics of the gifted (Almeida & Nogueira, 1988; Veiga, Moura, & Ribeiro, 1997). Misconceptions, myths and negative teacher attitudes and classroom environments can have a deleterious impact on gifted students. Twelve per cent of teachers interviewed in a study conducted in Porto, Portugal considered there not to be any need of specific measures for the gifted. Almeida and Nogueira (1988) raise their concerns towards this kind of apathy which resonate with negative attitudes towards the gifted. Gifted learners may not achieve, become demotivated in excelling and develop poor attitude towards work (Hansen & Feldhusen, 1994). A positive learning environment where gifted learners are an integral part of the classroom is essential. It can be said that anything less might be considered discriminatory against the gifted and talented.

Researchers argue that there is a form of bias that occurs when assimilating information. People choose to absorb information which supports their conceptions and reject other information. Teachers' cognitive beliefs cannot remain unchallenged and undeveloped. An information deficiency may lead to an unjust treatment towards this population of learners. Teachers may also be less prone to volunteering for professional development opportunities (Lassig, 2009). Teachers in this century need to possess and demonstrate fairness towards all learners (Troxclair, 2013).

Scholars have been researching predictors of attitudes towards the gifted and talented for more than half a century. Yet, studies of language teachers' attitudes towards gifted students and differentiation are practically non-existent. Hence, the focus here resides on general education teachers. As you will see below, the scenario is far from conclusive as studies demonstrate that teachers harbour positive attitudes, other times negativity prevails and yet other research indicates ambivalence. The following section has been divided into eras which reflect a shift in empirical concerns.

I. 2.2. Before the Bégin and Gagné Era

A major study in 1980 was carried out by Michener which aimed to understand administrators', teachers' and community members' attitudes towards gifted children and also the relationships between various demographic variables and attitudes. Results obtained demonstrated positive attitudes in all three groups; statistical significance was found amongst certain variables such as being female, having professional development within the field, having a gifted child, having a child that had participated in a gifted program as well as the members' own participation in a gifted program. All these variables seemed to be correlated with more positive attitudes towards gifted education. Copenhaver and McIntyre (1992) asked 82 teachers to list characteristics of the gifted; those professionals that had continual professional development, scored significantly higher. Other studies around this time suggested teachers harboured negative attitudes. A study carried out by Morris (1987), which involved 250 student teachers, demonstrated that 40% harboured negative attitudes towards the gifted. Cramond and Martin's (1987) research showed teachers' preferences of athletic students and average ability students in comparison to gifted learners. It was clear, however, that the mixed

results were partly due to the lack of representativeness of the sample as well as due to the range of instruments used.

I. 2.3. The Bégin and Gagné Era

In the 1990s, the variety of instruments used in the research and lack of statistical significance found demanded for more sound empirical research. A review comprising of 35 studies with nearly fifty variables was carried out by Bégin and Gagné (1994a) with the aim of pinning down characteristics in order to help practitioners in the field understand and counteract the often found resistance towards giftedness. Although the researchers agreed that none of the explanatory factors could systematically explain the variation in attitudes, self-perceptions as gifted, contact with the gifted, level of education, sex of the respondent and occupation as a teacher resulted as promising variables (Bégin & Gagné, 1994a). In a study carried out in the same year, Bégin and Gagné (1994b) observed that variables such as level of education, income and contact with the gifted were statistically related to more positive attitudes. More importantly, this study marked an important point in this field. It forewarned practitioners about various methodological issues in the study of attitudes towards the gifted: lack of the use of a reliable and valid attitude scale, inadequate statistical procedures, insufficient predictors and an inappropriate sample. Bégin and Gagné (1994b) proposed that by controlling these four criteria, it would be possible to ascertain the set of predictors of a general attitude towards the gifted. Due to their significance on attitudes, this section elaborates upon research which examines possible predictors of attitudes as well as attitudes towards specific provisions for the gifted.

Much more recently, using a more sophisticated set of variables (cultural orientation, socio-demographic, academic achievement and personal variables) Jung (2014) carried out a study with 241 Australian teachers and found contact with gifted and positive attitudes towards special provision for the gifted to be significantly related, as was found in Bégin and Gagné's (1994a, 1994b) study. Teachers who reported having contact with a gifted person either in the family, within their friend circle or an acquaintance may consciously or unconsciously harbour greater awareness of the needs of the gifted. Researchers have argued that this kind of gaining of awareness may be more real than those achieved through less direct experiences.

A very prominent and robust study was carried out by McCoach and Siegle (2007) which surveyed a random sample of 1500 teachers in the American context. Great variability was found amongst teachers' attitudes towards giftedness. Supporting Bégin and Gagné (1994b), these researchers stated that studies before this date were not generalisable to other populations on account of inadequate sample sizes and the lack of representative sample of teachers. McCoach and Siegle (2007) embarked on research with the objective of elucidating the scientific community further on teachers' attitudes towards the gifted. They used the 35-item instrument, "Opinions about the Gifted and Their Education" developed by Gagné and Nadeau (1991) and examined whether teachers alter their responses regarding attitudes towards the gifted according to the epistemic interests of the researcher. In addition, they looked at potential predictors of attitudes such as training/experience in gifted education, training/experience in special education as well as self-perceptions as gifted. Past research had found these particular variables to be statistically significant predictors of attitudes toward the gifted (Bégin & Gagné, 1994a, 1994b).

The above study demonstrated a general positive attitude towards the gifted despite great variability amongst the 262 teachers that took part. Regarding acceleration, there were slightly neutral or perhaps slightly negative views. The mean on the elitism scale demonstrated that teachers neither agreed nor disagreed that gifted education is elitist. In McCoach and Siegle's study (2007), training and experience with giftedness were not indicators of more positive attitudes towards the gifted, which contradicts some previous studies. For example, in the review of the research, Bégin and Gagné (1994a) found a statistically significant relationship between training in giftedness and attitudes towards the gifted in five out of eight studies; the remaining three did not. Hansen and Feldusen (1994) also concluded from their research that hours of training were related to better teaching skills towards the gifted as well as a better class climate.

Whilst in McCoach and Siegle's study training did not influence favourability towards the gifted, it was positively related to teachers' self-perceptions as gifted. The authors put forth two explanations that may justify increased self-perceptions as gifted: (1) Teachers who seek training perceive themselves as more highly able/gifted and are therefore more interested in the field of gifted education, or alternatively (2) teachers may perceive themselves as gifted after participating in courses where there are increasingly broader, more inclusive and multi-dimensional notions of giftedness.

Whatever the reason, researchers reported that these professional development opportunities did not succeed in increasing positive attitudes towards the gifted. There is an urgent need to understand the relationship between training and self-perceptions as gifted better if we are to advocate for the needs of the highly able. The present study aims to shed light on the relationship between training in gifted education and attitudes.

Curiously, special education teachers in this study tended to have less positive attitudes towards the gifted both in terms of lower support and lower attitudes towards acceleration. It may be that special education teachers do not see the overlapping similarities present amongst both the fields (McCoach & Siegle, 2007). Moreover, whilst the study showed that researcher affiliation had no impact on teachers' responses, the lack of correlation between training and gifted attitudes is of concern. Further research with a reliable survey and rigorous statistical measurements such as in this study is required, albeit with a bigger, random sample of teachers. Generalisability is hindered as the teachers who responded to the survey may in fact be those with more gifted professional development. Additionally, this study also involved a very broad definition of gifted training.

McCoach and Siegle's findings align with those concluded recently by Neumeister, Adams, Pierce, Cassady and Dixon (2007). These practitioners found that when given training sessions on gifted education and being taught the techniques to identify gifted students, the 27 fourth-grade teachers in the study did not attain a thorough understanding of the concept of giftedness and its characteristics. In contrast, Morissey's study (2006) reported a positive contribution to attitudes after training. This scholar carried out an intervention strategy by applying the Survey of Practices with Varying Needs to teachers before and after having participated in a workshop (experimental group). In sync with a few other studies, the researcher found that those teachers who participated in workshops, i.e., had training, held more positive attitudes and perceptions regarding gifted students. Some have argued there are differences in results when teachers undergo preservice or inservice training. Reis and Westberg (1994) report that only minimal changes are made in participants' classroom strategies when in-service professional development takes place. On the other hand, in a study carried out by Bangel, Moon and Capobianco (2010) an integrated theoretical nine week preservice practical course found participants to make more appropriate modifications

to their classroom strategies and obtained a more global understanding of gifted learners. Different types of professional development may yield dissimilar results.

Various detailed studies have managed to clarify further by showing us that although teachers are in favour of gifted education, they harbour negative feelings towards acceleration and homogenous grouping (McCoach & Siegle, 2007). Authors have concluded that teachers' egalitarian views render acceleration and homogenous grouping as unnecessary (Bain, Bliss, Choate, & Brown, 2007). It may be that due to a personal system of beliefs or experiences, the "acknowledgement" of the existence of individual differences may be more difficult for some than others. Ideas of equal opportunities for all students may be synonymous to some as treating all students "equally" and everyone achieving the "same". Blair (2000) states that teachers must acknowledge that students have different interests, learn at different rates and through different resources.

Negative attitudes were found in pre-service-undergraduate students ($N=45$) in a small university in the US (Troxclair, 2013). The author points out that although most participants demonstrated positive attitudes towards the gifted and talented in general, their views towards acceleration, ability grouping and elitism aligned with the various myths that exist surrounding this topic. Some of these myths include (a) the idea that gifted children can make it on their own; (b) teachers already challenge all children, so gifted children will do fine in regular classrooms; (c) all children are gifted; and (d) acceleration placement options are socially harmful for gifted students (NAGC, 2009). An Australian study by Lassig (2003) which involved interviews with 126 primary teachers demonstrated similar results. According to this author, more than half of the participants believed that ability grouping increases the consequences of labelling and that nongifted peers would then not benefit from the gifted peers' intellectual stimulation. Blair (2000) points out that teachers believe that if gifted learners are placed in homogeneous groupings, they may not achieve the necessary scores on standardised scores. Additionally, more than half the majority of the teachers thought acceleration would lead to inadequate social adjustment. These myths and misconceptions need to be dispelled by exposure to current research while in preservice training; Colangelo, Assouline, and Gross (2004) demonstrated that there are no negative social and emotional repercussions related to the practice of acceleration.

In an attempt to understand teachers' perceptions towards giftedness, Ramôa and Oliveira (2013) conceived a questionnaire and analysed 110 teachers' perceptions towards varying measures such as enrichment and acceleration. Teachers in Portugal seemed to have positive attitudes towards both these measures despite less favourability towards the acceleration measure which enables the entry of a gifted child earlier into the first cycle. Both Ramôa and Oliveira's study and Almeida and Nogueira's research (Almeida & Nogueira, 1988) showed evidence that teachers' reservations were mostly related to repercussions these measures may have on the social adjustment of the gifted learners rather than their impact on the academic domain.

Research fails to provide us with a clear image and shows that teachers' perceptions and attitudes range from supporting inclusion to preferring special instruction for high ability students. Researchers have found that teachers often favour special instruction over inclusion as they feel unprepared to provide quality teaching for both the students with and without the special educational needs in the same classroom. Although a large scale study with PGCE students in the UK found that they had positive attitudes towards inclusion of the gifted, they were in doubt of their own expertise and the lack of time to cope with the needs of the highly able (Marshall, Ralph, & Palmer, 2002). Other researchers have reported teachers' concerns about class size and make-up, role ambiguity, administrative support and empowerment as factors (Smith & Smith, 2000).

Another aspect which must be mentioned in an ever more competitive world are standardised test scores. Worryingly, it has been suggested (Hocutt, 1996) that teachers concerned with overall academic standards are those that show less tolerance towards special educational needs pupils. In a review carried out by Ward, Center, and Bochner (1994), the researchers concluded that the less complex the problem, the more supportive the view of inclusion, since fewer alternative instructional and management changes on behalf of the teachers are required. Kniveton (2004) expresses his bewilderment towards teachers' negativity towards inclusion of the gifted considering this could be challenging and help stimulate and raise standards as well as expectations for all students. Avramidis and Norwich's (2002) review on inclusion highlight once more that a school's ethos and teachers' attitudes have a powerful influence on teaching dynamics.

Roiha (2012) carried out both a quantitative and qualitative study focusing on 51 Finnish primary teachers' perceptions of the gifted as well as the challenges encountered when differentiating. Variability in teachers' perceptions was evident as well as a correlation between their perceptions and the practical differentiation methods used. According to Roiha (2012), the more broadly teachers see differentiation the more systematic and objective its implementation is. Additionally, the sample of teachers viewed differentiation for underachieving students as more important than for gifted learners and manifested the differentiation of strategies and techniques as more frequent as well as more challenging when working with this population of students. Interestingly, the teachers in this study were also found to view differentiation as a somewhat entirely separate paradigm from teaching. Differentiation has to be part of the core of successful teaching and can in no manner take a peripheral role in our increasingly inclusive classrooms. Gifted learners may become frustrated if school does not provide them with sufficient challenges.

Moreover, Caldwell (2012) reports that little differentiation is actually taking place in heterogeneous American classrooms. Similarly, Archambault et al. (1993) found minor modifications for the gifted taking place in a study which was undertaken at a national level in the USA. Caldwell's study focussed on internal and external factors' relationships with teachers' willingness to differentiate. He found that teacher efficacy was a better predictor for teachers' willingness to differentiate than teacher attitudes which came second, whilst years of training/experience had only a marginal contribution to teachers differentiating. Caldwell's study contributes to the field by highlighting what little we know about why it is that some teachers differentiate and others do not. There is a need to study internal and external factors such as self-efficacy, general attitudes, lack of training, lack of teacher planning time, lack of administrative support as well as other factors further.

In the absence of professional development opportunities, teachers revert more often to their own conceptions of giftedness which may in turn constrain accurate identification of gifted students (Szymanski & Shaff, 2013). For example, researchers have evidence that teachers overestimate high achievement and high grades and underestimate creativity, leadership, divergent thought processes and other markers which help characterise giftedness when nominating students for gifted and talented programs. According to Moon and Brighton (2008), teachers have found it difficult to

deviate from a textbook description of giftedness which works against the identification of certain socio-economic groups as well as those whose first language is not English. Although controversy exists as to why this underrepresentation exists, it is undeniable that discriminatory practices that limit finding and discovering minority talent may be a factor. Authors have suggested that it may be that teachers who fail to understand cultural behaviours and values of their students may indirectly contribute to low achievement. It may also be that preservice training courses do not address how to identify multicultural gifted students. In the same manner, multiculturalism courses for teachers do not include the needs of the minority gifted learners. Integrating both fields is fundamental. Szymanski and Shaff (2013) carried out a qualitative study with the aim of understanding teachers' perceptions of identifying and accommodating Hispanic gifted learners and found supportive to indifferent classroom interactions with learners. The negative impact of a lack of knowledge in the characteristics of various gifted learners may be further exacerbated when dealing with racially and culturally diverse learners.

In the same manner, there are attitudes that teachers hold towards gender. Scientific literature seems to show more nominations of boys than girls for gifted programs. Reis (2001) found that although teachers perceived gifted girls to be more hard working and performing at a higher standard in general, higher grades were given to gifted boys. In Portugal, a study carried out by Miranda and Almeida (2012) showed a significant relationship between teachers' perception of increased learning ability and female gifted learners.

I. 2.4. Summary

The variability in attitudes and perceptions towards the gifted is evident. While some studies have clearly indicated positive attitudes (Michener, 1980; Ramôa & Oliveira, 2013), both positive and negative attitudes (Morris, 1987), others have demonstrated negative attitudes towards the gifted and their education (Cramond & Martin; 1987, Kniveton, 2004; Roiha, 2012). Both positive and negative attitudes towards elitism, acceleration, ability grouping and inclusion have also been shown (Lassig, 2003; Marshall et al., 2002; McCoach & Siegle, 2007; Troxclair, 2013).

The literature review has also shown evidence for variables that correlate with more positive attitudes. These include contact with the gifted (Bégin & Gagné, 1994a; Jung, 2014); gender of the respondent and occupation as a teacher (Bégin & Gagné, 1994a); level of education (Bégin & Gagné, 1994a; Hansen & Feldhusen, 1994; self-perception as gifted (Bégin & Gagné, 1994b) and training (Bangel et al., 2010; Copenhaver & McIntyre, 1992; Hansen and Feldhusen, 1994; Lassig, 2003; Morissey, 2006). Other studies diverge and have found no significant correlation with attitudes and these variables. It is clear, based on the ambiguity of the research discussed here that these variables require more in depth study.

As has been discussed, teachers' attitudes, perceptions and beliefs play a pivotal role. As per McCoach and Siegle's observations, conceptions of attitudes towards gifted students need to be evaluated on an individual basis as so much variability seems to exist. This variability demands that the first question that should be asked when professional development opportunities are being planned must be about attitudes (Davis & Rimm, 2004). It must be highlighted that the ambivalence shown empirically through the various studies may translate into roadblocks for students who are gifted and talented and deprive them of a fundamental right.

I. 3 What Does Research Show About Gifted Friendly Practice?

My mind rebels at stagnation. Give me problems, give me work, give me the most abstruse cryptogram, or the most intricate analysis, and I am in my own proper atmosphere. I can dispense then with artificial stimulants. But I abhor the dull routine of existence. I crave for mental exaltation.

Sir Arthur Conan Doyle

I. 3.1. Introduction

Students are seated next to each other, in the same classroom by virtue of age. They enrich the class by what is part of them. The classroom reflects all of that the world represents. Some will bring with them learning difficulties, others will be physically challenged and others will not have Portuguese as a mother tongue. Yet others will be from low economic backgrounds and others will be of diverse origins.

Some students will be highly motivated but others will not. Each of these students will carry with them a preferred learning style as well as diverse strengths and weaknesses.

In order to take into account all of these differences and excel towards each student's potential including the gifted learners', there is a need to differentiate. A one size fits all model goes against children's rights. It is not a privilege but a right. It is not enough to have endless documents purporting the need for academically diverse teaching. Translation into action within the classroom is essential. Thus there has to be, as suggested by experts a match between who, what and how we teach to result in academic success. This match requires modifications, extensions and adjustments to the curriculum and to teaching strategies which the educational world has termed as differentiation. Differentiation is a tool which seeks to recognise, learn about, and address the needs of all students. With this aim, teachers use a variety of curricular, instructional and assessment approaches that promote learning opportunities and outcomes across learning environments. To use VanTassel-Baska's (2005) words, differentiated instruction and curriculum are the two non-negotiables of gifted education.

Hence, this part of the literature review aims to shed light on the general concept of differentiation, followed by specific measures for the gifted presented through the lens of the Integrated Curriculum Model. The latter half examines research on differentiation as well as the various barriers that impact its practice and implementation.

I. 3.2. Understanding what differentiation is and isn't

Scholars have defined differentiation in various overlapping ways. Tomlinson (2000) defines differentiation as the modifications and alterations made to process, content and product based on students' interests, readiness and learning profiles. "Content" is perceived as what is taught, "process" to what experiences students go through in order to grasp what is taught and "product" the manner in which a learner demonstrates and extends all he/she has learnt. Subsequently, a fourth element, the learning environment as the way in which it functions and feels was incorporated into Tomlinson's definition of differentiation (Tomlinson, 2000). Renzulli (1997) included the classroom and later added the teacher in his goals for differentiation. According to

Renzulli, the classroom needs to be made conducive to learning by increasing levels of comfort and by constant grouping formats. The teacher takes on the role of a source of personal knowledge of topics as well as personal interests and pastimes and crafts these and shares them with the learners. Heacox (2002), in line with the authors mentioned, defines differentiation as the changes made based on the interconnectedness of content, process, product, classroom and teacher.

In *How to Differentiate Instruction in Mixed-Ability Classrooms*, Tomlinson, (2001) explores what has been misunderstood as differentiation. She states that:

- **Differentiation is not individualised instruction for each student.** It is not assumed that each student receive a personalised task. What is required is a variation of groupings in that sometimes the teacher works with the whole class, other times in small groupings and other times with individual students.
- **A differentiated classroom is not synonymous to chaos.** A teacher that differentiates often manages as well as monitors various simultaneously occurring activities, all of which are purposeful.
- **Differentiation does not always include homogenous groupings.** A key word here is flexibility. Students are grouped according to their strengths and weaknesses and experience many different group configurations.
- **Differentiation cannot be limited to asking a complex question, toughening marking or sharing advanced information on a topic.** Although these techniques are a form of differentiating, it is unsuitable for those students who find the set assignment itself too easy in the first place, i.e. asking a complex question on a topic that is too simplistic for an advanced learner is an ineffective strategy.

In a literature review, Tomlinson et al. (2003) discuss the hallmarks of differentiation:

- **Differentiation is proactive and not reactive.** The teacher consistently plans ahead and caters for a range of learner needs rather than adjusting the lesson after understanding that learners are finding it easy or are uninterested. Moon, Tomlinson and Callahan (1995) alert us to the need of a robust plan in place

straight from the outset; minor and occasional modifications will not address learner variance.

- **Differentiation engages students in flexible small group learning and teaching.** In this manner, the teacher is working on individual differences through different dynamics; this has been shown to be beneficial in terms of achievement, increased positive attitudes towards learning as well as a stronger self-concept than when students consistently engage in whole-class or individual teaching (Lou et al. 1996; Tomlinson et al., 2003).
- **Differentiation employs a range of instructional formats and materials with the various groups.** Studies show that when materials are matched to the readiness and interest levels of the groups, there are significant gains in achievement (Lou et al., 1996).
- **Differentiation uses time as an effective resource.** It involves pacing learning and teaching according to students' readiness and interest levels.
- **Differentiation is knowledge-centred** in that teachers are clear about learning objectives and use this effectively to plan and extend learning goals and skills.
- **Differentiation is learner-centred.** This places emphasis on differentiating based on the utility of the topics, of the knowledge that students bring to class, continuous assessment of students' learning, student interests and involves the learners in the shared management of teaching and learning.

However, critics have brought attention to the distance between theory and practice of differentiation. According to Tomlinson et al. (2003), very little differentiation is taking place based on learner variance. Additionally, it is important to understand to what extent differentiation within heterogeneous settings are beneficial for gifted learners. In their research, Tomlinson et al. (2003) refer to the essential need to strike the balance between challenging advanced learners without hindering the confidence and volition of those that are less advanced and vice versa.

I. 3.3. Differentiation for gifted learners

Despite its existence even at the era of the one-room schoolhouse, it was Virgil Ward that coined the term differential education and demonstrated that in order to meet

the needs of all learners, instruction needed to be differentiated (Ward, 1980). He contended that general education did not further the intelligence of the highly able. He argued that in order to meet the needs of the individual gifted learners, higher level questioning as well as acceleration and depth of content were required. In his efforts to create a curricular framework for the gifted, he pursued in developing learning traits such as intellectual curiosity, a fast learning pace and analytical thinking skills. In spite of the significance of his research, the model was deemed rather abstract to put into practice (Olenchak, 2001).

Further on, researchers developed various approaches that focussed largely on the gifted learners' individual interests and needs, all of which involved modifications to content, process and product. Some examples include the Enrichment Triad Model (Renzulli, 1977) and the Purdue Three-Stage Model (Feldhusen & Kolloff, 1988). Despite having the benefit of catering for the individual needs of the gifted and having been widely accepted by the school community, researchers questioned whether the content aspect of the models were insufficiently developed and left too much to the discretion of teachers.

With the objective of diminishing this concern, various approaches such as those by VanTassel-Baska (1986) were created. Through these approaches, experts endeavoured to cater for the sophisticated learning traits of the gifted focusing mostly on curricular modifications. At this stage, differentiation still seemed to focus extensively on curricular and not instructional strategies.

In an extensive review on differentiating for the gifted, Rogers (2007) undertook the task of analysing the entire body of published studies from 1861 and synthesised five lessons as recommended by past research in the field of education. These took into account both curricular and instructional modifications. The first lesson is that gifted and talented learners need daily challenge in their specific areas of talent; the second point suggested a need for consistent opportunities for learners to work independently on areas of their passion and talent; gifted students should also be provided with a range of subject-based and grade-based accelerations as their educational needs require; the fourth aspect brings together evidence that recommends providing opportunities for gifted learners to socialise and learn with like-ability peers; and the last lesson focuses on gifted students' needs in receiving instructional delivery for each specific subject area that is differentiated in pace, content as well as amount of review and practice.

This list of recommendations for the gifted put forth by Rogers (2007) correspond to some of the work which has already been discussed (Feldhusen & Kolloff, 1978; Renzulli, 1977; Tomlinson et al., 2003); VanTassel-Baska 1986, 2005). Furthermore, VanTassel-Baska and Brown's research in 2007, which summarises the essentials of gifted education, resonates closely to the five lessons put forth by Rogers (2007). These include: (i) the use of advanced curricula in core areas of learning in an accelerated pace; (ii) arranging subject-based grouping for flexible advanced curriculum work based on students' levels of readiness; (iii) implementation of higher level thinking skills to promote learning; (iv) using inquiry as a strategy to enhance motivation and learning; and (v) providing student centred learning opportunities that are problem-based and relevant to the students.

Rogers (2007) and VanTassel-Baska and Brown (2007) underline important aspects for consideration; educators will need to reconsider their previously held beliefs and commit to working towards the "full potential" of their learners. Teachers will also have to work closely with schools to understand attitudes of all stakeholders and work towards appropriate strategies. In her work, Rogers (2007) highlights the importance of gifted education training for teachers if we are to work towards closing the gap between what is and what should be.

I. 3.4. Best practice in gifted education: The integrated curriculum model

Theories and concepts need to be translated into action in the classroom. While reviewing the literature on best practice within gifted education, there was a need to make a choice which would then help align a variety of recommended educational practices in regular classes. A comprehensive conceptual framework, one which has a strong body of empirical evidence to support it and follows the principles of high quality curriculum for the gifted (Drain; 2008; 2009; Hockett, 2009) is suggested. Although it can be posited that it is one of many possibilities, the model put forth is capable of rendering differentiation as tangible, and consequently "doable".

The Integrated Curriculum Model (ICM) was first proposed by Joyce VanTassel-Baska in 1986 and was later elaborated upon (VanTassel-Baska and Wood, 2010). There is an interrelationship between three aspects: an advanced content dimension, a process/product dimension, and a concepts/issues/ themes dimension

(Figure 4). These dimensions are a result of longstanding research in the field of high quality curriculum and are not exclusive to this model. However, process thinking skills cannot be developed in isolation from content. These need to be taught and practiced using content. In this model, which integrates these three aspects, this problem is diminished. Secondly, one of the faults pointed out by curriculum experts is that the content approach is often not taught in a developmental and sequential order. These detachments do not respect the principle of good curriculum, which is successfully counteracted in this model due to its emphasis on interconnectedness. Furthermore, Colangelo and Davis (2003) point out that the product-oriented approach may be seen as a “make it and take it” one where students are encouraged to focus on quantity and not quality. By systematic integration of these three aspects of process, content and product, the creators of the ICM model have demonstrated successful teaching and learning in gifted students.

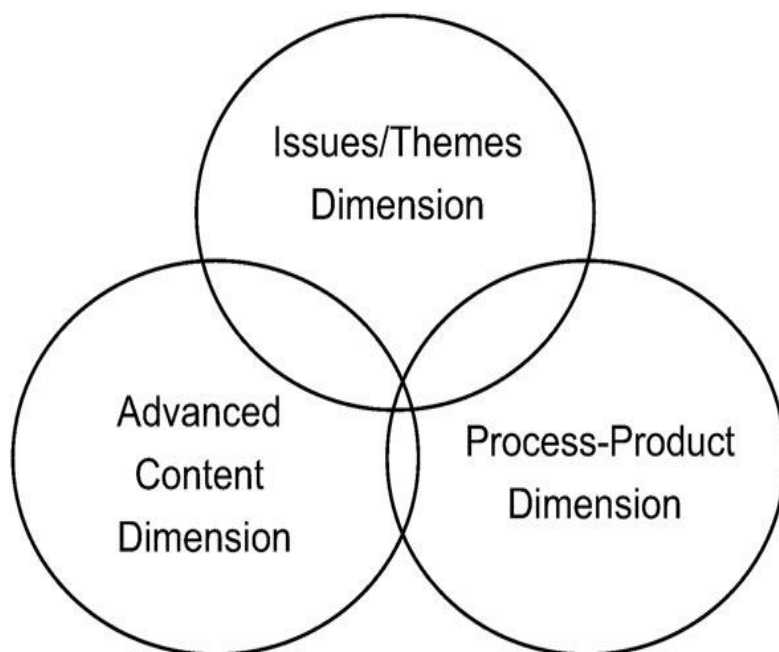


Figure 4. Dimensions of the ICM model (VanTassel-Baska & Wood, 2010 p.347).

In addition to its focus on the integratedness of three fundamental aspects, the above model's strength lies in the 25 studies, including a substantial amount of longitudinal research which has been carried out; this research has studied and demonstrated the ICM's positive effectiveness not only in gifted education but in

learners of all abilities (Hockett, 2009). On the other hand, although the Parallel Curriculum has been found to be effective in terms of its principles, at this stage there is still minimum evidence to support it.

The ICM is founded on research based characteristics of the gifted, namely precocity, intensity and complexity. Intensity, as VanTassel-Baska and Wood (2010) maintain, is a characteristic of the gifted as they have the ability to focus on an area of interest for a long period of time and this engagement leads to making complex connections and links easily and earlier than their age peers. Gifted students are also precocious learners, being at least two years ahead of their grade level, both in the areas of mathematics and reading.

It is important to understand how these are embodied in the learning and teaching process. The model's process oriented dimension encourages the students to be challenged by questions, in-depth thinking and independent learning by tapping into higher order thinking and processing. The goal of stimulating inquiry, active exploration and discovery are adapted to the different ages and disciplines involved. The curricular framework addresses this component through Paul's Elements of Reasoning or Bloom's Taxonomy of Educational Objectives.

The concept/issue/theme dimension focuses students' learning experiences on major themes and ideas with theoretical and practical applications. For example, language arts components work around the concept of change. The science curriculum includes a problem-based learning approach that examines how science systems relate to real-world systems socially, politically and economically. According to VanTassel-Baska (2005), arranging and structuring a content area around a conceptual framework can be mastered with more ease.

Product-oriented programmes focus on teachers to encourage students to demonstrate what they have learnt in a range of forms. These could be a written report, a poem, a painting or a video-game based on the characters of a novel. In this manner there's an assessment of real issues and audiences.

Applying Slavin's Best Evidence Synthesis, Drain (2008; 2009) carried out a literature review which helped filter evidence-based effective practices within the field of giftedness. i.e., they have at least four studies or a meta analysis that recommend them as effective practices. Drain's analysis, altogether with Robinson, Shore and

Enersen's *Best Practices in Gifted Education* (2007) provided the framework for this section of the literature review. Due to the goal of this thesis, emphasis was placed in strategies which were more language-friendly activities. These practices are aligned with the ICM model and will be presented under each of its three dimensions. Strategies such as flexible grouping and student choice have been discussed as additional gifted friendly practices. Further elaborations on each of the individual practices and their implementations in the EFL classroom will be discussed in Chapter 4.

1.3.4.1. Concepts, issues and themes

1.3.4.1.1. Integrating language arts

Integrating reading and writing across the grade levels and disciplines has shown to develop students' skills in literary analysis, persuasive writing, linguistic competency and oral communication while simultaneously strengthening students' reasoning skills and understanding the concept of change (VanTassel-Baska & Stambaugh, 2006). Similarly, Robinson et al., (2007) advocate promoting reading, writing and oral presentation across the curriculum through natural learning situations with real purposes and audiences. In this manner, students are acquiring skills in a holistic manner and not in discrete units. Gifted students that participated in Kanevsky's study (2011) reported the need to have opportunities to pursue more complex concepts as well as the interconnections amongst ideas. A well-known longitudinal study over a six-year period conducted in this specific area has been the William and Mary Language Arts and Science Curriculum (Feng, VanTassel-Baska, Quek, Bai, & O'Neill, 2004). All stakeholders involved found the integration of language arts over the curriculum as positive.

1.3.4.1.2. School-based enrichment programs

Another practice which has been found to be effective when working with gifted learners are school-based enrichment programs. It was Renzulli (1977) who first proposed this, enriching students' experiences by focusing on projects that involved real problems to be solved. An enrichment cluster, part of Renzulli's Schoolwide Enrichment Model (Renzulli & Reis, 1994), involves learners of various ages and talents working together to produce a product or service for an authentic audience.

Opportunities can be created for students to come together once a week over a term and work on a selected topic of interest with a teacher who shares their interest and possesses some advanced knowledge in the field. Topics are selected based on an interest inventory and parents and staff and other members of the community are all invited to participate with the objective of developing authentic projects that might involve creative writing, painting, creating a videogame, archaeology, etc. These activities are interdisciplinary in nature in that in order for a service or product to be delivered, various professionals come together and develop their part.

These enrichment measures, which differ from curriculum enrichment, are not uncommon in Portugal. One example is an enrichment programme known as *Odisseia* (Miranda, 2008) which was implemented in a fifth grade in Portugal. The first phase of the programme involved all the students and took place during school hours. The second phase involved 25% of the students who had revealed high levels of creativity and motivation or had been identified by their teachers. The third phase, shortlisted only nine students who were selected based on results on the WISC III (IQ levels above 130), levels of creativity above the 90th percentile as tested by Torrance and also demonstrated to be extremely motivated. The aim of the programme over the course of the three phases was to develop problem-solving skills, creative thinking skills, increase academic achievement, self-concept and self-esteem (Miranda, 2008). Miranda (2008) observed that the participation in this form of enrichment programme led to originality and creativity in the elaboration of products, higher intrinsic motivation and academic achievement gains in Maths, Science and Art. The school staff and administrators reported a positive outcome in terms of better teamwork and pedagogical innovations.

Similarly, a shorter term enrichment programme conducted on fifth and sixth grade students in a public school in Braga, aimed to develop higher order thinking skills, creative thinking, imagination and curiosity as well as enhance self-regulation, metacognition, problem-solving and inquiry-based learning (Antunes, 2008). After only 11 sessions, the 30 students in the experimental group showed gains in achievement in Maths and verbal creativity. Qualitative analysis indicated improvement in terms of emotional, social and cognitive gains.

Despite being an interesting educational measure with significant research to support its usage and implementation, these might involve leaving the school premises, hiring specialised staff and materials and other planning and organisation which can

result in a need of resources that a school may not have (Antunes & Almeida, 2009). Nevertheless, with some perseverance and creativity, teachers can use the Enrichment Models to involve the entire school population, motivate and challenge students at their own pace while also providing gifted and talented learners the opportunities they deserve.

1.3.4.2. Advanced content

1.3.4.2.1. Acceleration.

Acceleration at a curriculum level involves pacing up the level at which material is presented and learnt. Historically speaking, acceleration is a well documented strategy and can take the form of grade-skipping, telescoping or compacting the curriculum. Although there is tremendous literature on acceleration, there is still hesitation as regards to this practice as some authors believe it jeopardises socialisation with same age peers and is often associated with social maladjustment and gaps in core areas of skill (Colangelo & Davis, 2003). According to Antunes and Almeida (2009), research in Portugal related to acceleration has demonstrated positive outcomes. Research by Kanevsky (2011), which aimed to understand students' opinions on differentiation practices, found that students learning at their own speed was one of the most positively rated strategies amongst gifted learners.

Strong evidence can be found in the Mathematically Precocious Youth experiment (SMPY) which has researched the impact of acceleration on gifted learners over a span of 35 years (Lubinski & Benbow, 2006). Results also involved patterns of high life satisfaction in experimental versus comparison groups. MacKay (1994) highlights the potential of acceleration as an escape from boredom and warns the community that the lack of challenge in school is not only tragic, but damaging.

1.3.4.2.2. Compacting the curriculum

Content can also be compacted. Curriculum compacting involves the teacher to (1) ascertain the sets of objectives or outcomes of a chapter in Geography for example; (2) assess those that have already mastered the components; and then (3) implement alternative instructional material. In the largest scale compacting curriculum study, Reis

et al. (1993) concluded that for target students, almost half the material could be “compacted” across a variety of different subjects. Needless to say, the effectiveness of this strategy is strongly dependent on what alternative strategies the teachers employ in the available time. Research demonstrates that when curriculum is compacted there is ample opportunity for self-selected projects to be pursued, which in turn improves gifted learners’ joy of learning (Robinson et al., 2007). Robinson et al. (2007) also promote subject-matter acceleration and telescoping a three-year curriculum into two years.

1.3.4.2.3. Advanced content (Reading Instruction)

One of the ways learning can be differentiated is with the usage of advanced content. Examples of this practice can be seen when elementary students are offered a pre-algebra course or when high-school students are enrolled in Advanced Placement courses. More pertinent to the study at hand is reading instruction. This can be perceived as a form of enrichment i.e., providing more depth or breadth to content. Robinson et al., (2007) advocate it as a gifted friendly strategy. Gifted and talented learners are almost by definition contemplated as good readers and others may not be precocious readers but garner the potential. Research indicates that very capable readers read from one to three grades ahead of same-aged peers (VanTassel-Baska, Johnson, Hughes, & Boyce, 1996). With differentiated instruction which capitalises on vocabulary study, appropriate fiction and non-fiction and that promote problem solving and creativity, have the potential of providing enriching experiences for the gifted learner (Robinson et al., 2007). Traditional classrooms use the same reader or basal reading for the entire class; however, these are aimed at the average learner (Robinson et al., 2007). Since the gifted learner’s intellectual growth is contingent upon their access to and engagement with the reading process, providing reading which is enriching is fundamental. Researchers have advocated the implementation of classics (poetry, fiction and non-fiction) to provide varied and rich vocabularies, enhance critical and creative thinking and increase sensitivity to world issues. Highly engaging literature both in terms of personal and societal issues as well as culturally relevant material can be highly motivating. Open-ended discussions which stimulate complex thought and intelligent experiences can be further promoted based on literature (Mallea, 1992).

1.3.4.2.4. Curriculum extensions

Alternatively, curriculum extensions attempt to motivate learners through presenting field trips to the Zoo, museum programs or even extracurricular activities. Curriculum modifications in terms of depth and breadth have been applied in the William and Mary Language Arts Curriculums resulting in strong concept and content mastery (Feng et al., 2004).

1.3.4.2.5. Understanding versus memorizing content

The William and Mary Science Curriculum has also supported evidence for another aspect: understanding versus memorizing content. Students showed higher academic growth and achievement when there was clear evidence of understanding of the science systems over memorisation. Nevertheless, a study carried out by Hare and Pulliam (1980) stated that a only a fifth of classroom questions put forth by teachers required more than simple recall of facts.

1.3.4.2.6. Using Primary Sources

When provided with primary resources, students are presented with what is real and what is personal. There is an intrinsic interest which elicits questioning, critical thinking, synthesizing and motivation, skills that are pertinent to a historian in the field. Experts also add that students learn to detect bias in sources which can be said to be a fundamental skill in the 21st century.

1.3.4.3 The dimension of products and processes

1.3.4.3.1. Higher order questioning

Higher order questioning strategies have shown to be effective as promoters of critical thinking, increased literacy levels and more language production (Taylor, Pearson, Clark & Walpole, 2000). Learning activities emphasise higher order thinking processes such as application, analysis, evaluation and synthesis. In a study conducted by Henderson (2004, p. 68) a participant stated, “...I think it has made everybody open minded and to think. We have had to think about big questions and you had to be

excited about it to learn and you really had to think.” Looking at the big picture rather than the details is also a characteristic of higher order thinking skills.

When higher order questions are implemented systematically there is a result in higher order thinking. Higher order thinking is when students transform the meaning and implications of something by making links and interconnections. A study conducted by VanTassel-Baska (1996) found that when learners were asked to provide a title for a text and justify their choice through an expository text, more positive results were found. Worryingly, however, according to John Goodlad (1983) only about 1% of classroom discussion invited students to put forth their own reasoning.

1.3.4.3.2. Socratic thinking

Socratic thinking encourages teachers to respond to all answers with a further question, to discover the ultimate foundation for every comment that is verbalised and to treat each point as a connecting point for further thought. Good learning as stated by experts in education, involves good questioning, not answers. Evidence of this practice has been found in elementary students as well as graduate students (Philips, 2000). In his study he describes the “Philosophers Gang”, a program to introduce philosophical inquiry to elementary school children in a school in California which resulted in more engagement and other positive outcomes.

1.3.4.3.3. Critical thinking

Linked to the above is critical thinking. A longitudinal study named Project Athena (VanTassel-Baska & Bracken, 2008) tested 1346 students in third to fifth years over a three year period using Paul’s Elements of Reasoning. This school had a significantly high percentage of students from disadvantaged backgrounds. Teachers received formal training and pre and post reading comprehension tests as well as critical thinking tests were applied to the students. Students of all abilities in the experimental group benefitted from teachers’ fostering of critical thinking and creative thinking. Additionally, teachers were found to use progressively more target differentiating techniques if they had received formal training. Yet another aspect which purports critical thinking is synectics, where creating links via analogies helps in problem solving and may be particularly pertinent to learning a foreign language.

I. 3.4.3.4. Creative thinking

The ability to create something novel is an aspect which is probably not favoured by all teachers. Gifted students are said to have an ease in creative thinking i.e., making and communicating connections and thinking of many possibilities, of new and unusual possibilities. In the debate of what constitutes giftedness, a few authors have reverted to highlighting creativity. Nurturing creativity in gifted learners can be intrinsically motivating. Clark (1996) explains that teachers who fostered creativity in class possessed other very appealing characteristics for teaching gifted students, such as inviting reasoning and alternative answers and possibly unexpected hypotheses too.

I. 3.4.3.5. Metacognition

Gifted learners also possess more increased levels of metacognition and this has been found to be an effective teaching and learning strategy. Making students aware of their own cognitive strategies when in the learning process can be a fundamental aspect. Authors have suggested small group discussions, journals and self-reflection as excellent tools for fostering metacognition.

I. 3.4.3.6. Synectics

This facility, which gifted learners demonstrate, in the bringing together of apparently unrelated elements is referred to as synectics. It is in the forging together of new information to information that we already know that leads to learning. It was through a metaphor of riding a beam through the universe that led Einstein to construct his theory of relativity. Winner (1997) explains that “that ‘metaphor’ is at the root of creativity and openness of language” (p.16). The advanced metalinguistic capabilities of gifted children and their flexibility of thinking enables them to understand the symbolism of metaphor and analogies at a younger age (Fraser, 2003).

In other words, the joining together of seemingly unrelated concepts can lead to insights which may be potential solutions to problems (Weaver & Prince, 1990). It is these kind of synectic methods that are used by think tanks, research groups and inventors and have been the reason behind many modern creations. These are essential for learners to “make the strange familiar and the familiar strange” in order to view objects and concepts differently (Clapham, 2003).

In 1995, Meador carried out an experimental design to understand the impact of synectics on creativity, self-concept and verbal skills of 107 gifted and non-gifted kindergarten learners. The strategy seemed to qualitatively increase levels of abstract thinking amongst the gifted and was found to promote creativity amongst all the children. Due to its impact on thinking skills, the researcher recommends synectics as a gifted friendly practice. Metaphors, analogies and similes carry with them great potential for reinforcing thinking skills and conceptual understanding and may be a key for both the identification and education of the gifted population (Alvermann & Phelps, 1998).

I. 3.4.3.7. Learners as practitioners

Students taking on the role of historians, scientists, shop assistants are all part of acting as practitioners in the field. This is intrinsically related to doing and hands-on approaches to learning, often referred to as active learning. In language learning, students can act as storytellers and writers.

I. 3.4.3.8. Authentic assessment

Good curricula involves authentic assessment which has the objective of evaluating students' abilities in "real-world" contexts. According to some authors, although there is controversy as to what authentic assessment is, it is important that assessment takes into account skills which are viewed as essential in the context outside school (Palm, 2008). As a reflection of gifted friendly curriculum, which is heavily reliant on conceptual teaching and understanding, traditional standardised tests no longer make sense (Archbald, 1991; Dana & Tippins, 1993). These researchers go on further to say that they also fail to capture the essence of problem solving processes which are fundamental aspects of theory driven recommended practice for the gifted.

Moon, Brighton, Callahan & Robinson (2005) found evidence for the use of differentiated authentic assessment as providers of true information about learning amongst the gifted population. Gifted learners could benefit from alternative assessment which is more advanced, open-ended, geared towards problem-solving and encourages students to use and demonstrate higher thinking processes (VanTassel-Baska et al., 2008).

1.3.4.4. Student choice

Student choice seems to be a pervasive tool for the gifted and talented as it allows for a wider choice of interests and passions both in terms of depth and breadth and enables for a flexible pace of learning. The involvement of students in the decision-making process enables the considerations of their needs, preferences and learning styles (Tomlinson et al. 2003) and the resulting engagement has been suggested to reduce underachievement (Gentry, Rizza, & Owen, 2002).

Drain (2008, 2009) expressed her concern regarding the paucity of empirical evidence to support student choice as gifted friendly practice. However, student choice is ever-present in effective implementation of gifted programs as well as successful differentiation measures. This is present within all the above suggested strategies and should be considered a pillar on which appropriate gifted education hinges on. Research supporting the Parallel Curriculum (Tomlinson et al., 2002) also places emphasis on student choice. Hence, it has been included here as an effective and readily accessible practice that caters for the highly able.

From the students' standpoint, Kanevsky's study (2011) demonstrated that gifted students desire choice of content, materials and resources, product, grouping dynamics as well as choice in the pace of work. Similarly, Bishop (2000) revealed choice of content and product as vital components of independent research for gifted students. Evidence has also identified choice, ownership and interest as strong motivation for learning in a sample of secondary students (Gentry & Springer, 2002). Research does however, express the need for teachers to support students in making appropriate choices (Bishop, 2000).

1.3.4.5. Flexible grouping

Another strategy which demands recognition is flexible grouping (Drain, 2008, 2009; Robinson et al., 2007; Tomlinson, 2001; Tomlinson et al., 2003). Systematic heterogeneous grouping or mixed ability grouping has found to be ineffective in the long-run for gifted learners, although some studies have shown positive effects for typical learners. In fact, for gifted learners the result has been lower achievement and motivation as well as poorer attitudes towards school (Feldhusen & Moon, 1992).

In a review carried out by Feldhusen (1989) he concluded that:

grouping of gifted and talented students in special classes with a differentiated curriculum, or as a cluster group in a regular heterogeneous classroom (but again with differentiated curriculum and instruction), leads to higher academic achievement and better academic attitudes for the gifted and leads to no decline in achievement or attitudes for the children who remain in the regular heterogeneous classroom. Gifted and talented youth need accelerated, challenging instruction in core subject areas that parallel their special talents or aptitudes. They need opportunities to work with other gifted and talented youth. And they need...teachers who both understand the nature and needs of gifted youth and are deeply knowledgeable in the content they teach (Feldhusen, 1989, p. 10).

Flexible grouping strategies involve a range of various grouping strategies. These have shown to promote achievement in reading in all ability levels (Robison et al., 2007). A teacher that differentiates is conscious that whole class learning may not be suitable at all times for all learners. Options may range from individual, pair or small-group work to whole class teaching, encompassing both homogenous and heterogeneous ability groupings (Tomlinson et al., 2003). Additionally, arrangements can be decided by the teacher or by students.

The main goal is to bring together a student's instructional and individual needs. Pre-assessment data can be used to group students according to varying interests, skills, abilities, learning styles, multiple intelligences and the various process and products desired (Tomlinson et al. 2003).

Unlike tracking, where students' pre-assessment data is used to assign them to full-time same-ability configurations, flexible grouping involves movement in and out of different groupings. Flexible grouping undermines the confinement to an ability group and allows for more fluidity between groups (Fielder, Lange & Winnebrenner, 2002). In a secondary school setting this may translate into having various students working according to their strengths and weaknesses across the range of subjects for the most suitable length of time. According to Tomlinson et al. (2003) this also helps students from feeling constricted to an ability group. It is important to highlight that

flexible grouping strategies do not only include ability levels. Teachers that differentiate often bring together students who share interests and can work together on something they care about or even create a group where various interests come together in order to have input from different angles. Heacox (2012) suggests some caution in the overuse of same-ability groupings. She advocates that although grouping by ability is often necessary, other variables should be taken into account of too so as to allow learners needs to be met while they are in the process of becoming more engaged and confident learners. Tomlinson (2001, p.26) highlights that “flexible grouping is a central part of respect for all learners, honoring individual differences, collaboration, teaching for success, and collaboration in a differentiated classroom”.

Nonetheless, flexible grouping strategies on their own are not effective practices; in meta-analyses of research on varying grouping options for gifted students, both Rogers (1991) and Kulik and Kulik (1992) found that both within-class and ability grouping across various grades were successful only when accompanied by curricular and instructional differentiation such as the use of advanced content, higher levels of complexity, increased pace of learning, problem-based learning and authentic assessment.

I. 3.5. Where differentiation stands...

Even after years of research into differentiation as well as its implementation, it still remains an area in need of further development. In spite of a general agreement that differentiation is somewhat necessary for gifted learners, researchers would argue that its interpretation and translation into practice is polemic. Westberg and Daoust (2004) as well as others have observed little differentiation taking place in spite of improved professional development. When it is taking place, teachers have perceived the gifted students as a homogenous group, and differentiated the curriculum and instruction for high ability students dependent on how they vary from the others as a group rather than as individuals. Sapon-Shevin (2003) highlights that blanket statements about what gifted students need are an error. She points out that catering for a group of identified gifted and talented learners with an inflexible, undifferentiated curriculum as if they were one “big chunk” are as much to blame as when these students are in a class where differentiation is not taking place.

Olenchak (2000) studied 100 school districts throughout twenty states in the USA, all of which stated that differentiation was provided within their schools. After applying open ended surveys requesting information on what type of differentiating was being implemented, there were some positive findings in that more than three-quarters of the schools demonstrated an intention to change the curricula as well as more than half demonstrating a proactive attitude by implementing appropriate strategies for their gifted learners. Nevertheless, a mere 3% showed any personal level changes.

A large scale American study (Archambault et al., 1993), encompassing surveys completed by approximately 6,000 teachers of third and fourth grades all over the USA found that only minor adjustments were made when adjusting the curriculum or instruction for the gifted. The implementation of the Classroom Practices Questionnaires revealed only slight differences when differentiating for the gifted in comparison to the average learners. The pattern was similar in all the factors under focus: Questioning and Thinking, Providing Challenges and Choice, Reading and Writing Assignments, Curriculum Modifications, Enrichment Centers and Seatwork. This was true for both private and public schools, regardless of whether these schools were urban, rural or suburban and the teachers' ethnicities. When minor adjustments were made these involved advanced reading, exercises from more advanced textbooks, project work and enrichment worksheets.

A few years later, Westberg, Archambault, Dobyns, and Slavin (1993) used an observation scale across 46 classrooms to understand the kinds of differentiation taking place as well as the frequency of differentiation of instruction and curriculum provided in the regular classroom. Although some differentiation took place, it was mostly in maths classes where learners were provided with more advanced content. However, throughout 84% of the activities minor modifications to instruction and curriculum were taking place. Authors of this study recommended more focussed inservice training where teachers would be given the opportunity to experiment with these strategies.

Teacher variables and environmental factors were considered in a study by Westberg and Archambault (1997) that took place in third, fourth and fifth grades across ten elementary schools. Data was collected with the use of observations and interviews. Some interesting findings were observed. When differentiation took place teachers had training in special education which the authors related to improved awareness of individual differences; teachers were also open to experimentation; educators viewed

students with different levels of readiness and not as a whole; teachers worked in collaboration with school administrators who advocated differentiation practices for their gifted learners. Authors of this study also indicated that teachers within this sample had no constraints in terms of legislation and were free to engage in a range of practices. Westberg and Archambault (1997) pinned down effective differentiation to teachers acknowledging not only learner variance amongst their classes but also similarities. This awareness of students' similarities and differences seem to play a role in differentiation.

A follow-up study by Westberg and Daoust (2003), a decade after the implementation of the study carried out by Archambault et al., (1993), found that differentiation practices had not changed much and only minor modifications were still being made. Additionally, the students demonstrated that when teachers had had training during their university course there was a tendency for teachers to accommodate more often for their gifted learners. This statistical difference was only observed within a particular area of differentiation involving curriculum modifications. However, despite the sample of teachers having more professional development in training in comparison to the sample that participated in Archambault et al's study, this seemed to have no impact on the implementation of differentiation practices.

1.3.5.1. Obstacles to differentiation

What are some of the obstacles for differentiation to take place? VanTassel-Baska and Stambaugh (2005) refer to (i) a lack of advanced content knowledge; (ii) an absence of flexible classroom management skills; (iii) unfavourable attitudes towards the gifted and their learning; (iv) the lack of skills to modify the curriculum to cater for the gifted; (v) the lack of skills to deal with a very diverse classroom which may include twice exceptional students; (vi) limited access to appropriate materials and resources; (vii) a lack of time and may also have lack of administrative support. Another aspect which must be mentioned in an ever more competitive world are standardised test scores. Some of the above mentioned barriers to differentiation have been elaborated upon below.

1. 3.5.1.1. Focus on standardised test scores and achieving goals

Worryingly, it has been suggested (Hocutt, 1996) that teachers concerned with overall academic standards are those that show less tolerance towards special educational needs pupils. Tomlinson (2008) adds that for many the focus has shifted from learning to raising student test scores on a single test. Teachers today are faced with a variety of decisions and responsibilities that are very particular to the 21st century. This responsibility includes each and every learner in the classroom but the teacher may be focussed on working with only the least able in order to raise scores. Winebrenner (2000) found that teachers were more focussed on remedial rather than enrichment work. According to this researcher, teachers are erroneously led by academic scores achieved by the gifted learners, perceiving these as a sign that gifted students are learning.

Winebrenner also highlights another crucial aspect. The teacher has clear mandated goals for the class as a whole which he/she will work towards. Nevertheless, there will be gifted and talented students that will have mastered the content prior to these being taught in class. If pre-assessment tests are carried out routinely, alternative activities can and should be provided systematically. In this manner, the gifted learner is making progress and not being neglected.

1. 3.5.1.2. Teacher' personal beliefs and attitudes towards differences

It may be that due to a personal system of beliefs or experiences, the “acknowledgement” of the existence of individual differences may be more difficult for some than others. Student variance is not embraced by all teachers and is evident in literature, in particular towards foreign language learners, students from low economic backgrounds and towards SEN students as well as our most able learners.

Acknowledging that students learn at different speeds and that they differ widely in their ability to think abstractly or understand complex ideas is like acknowledging that students at any given age aren't all the same height: it is not a statement of worth, but of reality (Tomlinson, 2001, p. viii).

Without embracing the varied rates of learning, individual preferences and abilities, learning styles and all other possible forms of diversity inherent within the classroom, how will a teacher find differentiation important? In an American study carried out to middle school teachers, 50% replied that they did not differentiate instruction as they did not deem it necessary (Moon et al., 1995). Schumm and Vaughn (1995) have found that general education teachers often do not differentiate as they feel it highlights student differences, they are oblivious to these differences as well as commonly feel that the students do not need special treatment for a world that will not provide it. Ideas of equal opportunities for all students may be synonymous to some as treating all students “equally” and everyone achieving the “same”.

Teachers make a difference and although this is true for all students, some authors have suggested that this impact is further exacerbated in gifted students. Unfortunately, differences are often found to be viewed by teachers as problematic and not an opportunity for further possibilities and challenges for both the students as well as themselves. As argued by many, teachers’ attitudes can be changed if teachers are given strategies on how to plan lessons that engage and promote differentiation.

1.3.5.1.3. A strong leadership

A strong leadership with clear goals is essential. Critical awareness of emerging educational issues goes hand in hand with embracing the gifted. According to the findings from a qualitative study carried out by Hertberg-Davis and Brighton (2006), principals play a key role in teachers’ willingness and ability to differentiate instruction. Supportive principals who encouraged differentiation and participated in workshops themselves were found to have a mirror impact on the teachers. Both words and action need to be in synchrony. Teachers were highly aware of the principals’ attitude towards giftedness, in that it was challenging but surely possible. Contrary to this, some principals rarely attended workshops, often forgot to inform their teachers about any possible training and were found to be authoritarian. Teachers from these schools were found to differentiate less frequently.

As these researchers posit, teachers need administrators’ support not only for the resources required to differentiate for the gifted but also for emotional support. Principals who communicated their vision in embracing all children, as well as

demonstrated understanding the difficulty of the task and encouraged teachers to take a risk were found to have a more positive impact. These principals also allowed time as a factor for realistic teacher growth. In Rodrigues and Antunes' (2012) study, it was found that more than three quarters of the teachers did not know the legislation on giftedness; principals have a key role in counteracting this lack of information.

I. 3.6. Summary

It would be unthinkable to analyse best practice without understanding differentiation. Differentiation has been defined as the modifications and alterations made to process, content and product based on students' interests, readiness and learning profiles (Tomlinson, 2001). Other authors have suggested the learning environment, teacher's knowledge and interests play an important role and should be taken into account when differentiating (Dinnocenti, 1998; Heacox, 2002). A literature review (Tomlinson et al., 2003) highlights the various hallmarks of differentiation, placing emphasis on proactiveness, working in small flexible groups, employment of varied instruction and materials, and pacing learning. To add to this list is the importance of differentiation being knowledge and learner-centred.

These are further examined in the light of what differentiation measures require when working with the gifted population. Researchers have put forth the need for students to have daily challenge in their area of talent, to be given the opportunity to work independently on areas of interest and also to be allowed appropriate acceleration measures (Feldhusen & Kolloff, 1978; Renzulli, 1977; Rogers, 2007; Tomlinson et al. 2003; VanTassel-Baska, 1986, 2005). In line with what was suggested in Tomlinson et al.'s review, the need to work in homogeneous settings and develop work that is differentiated in pace and content is also a need of the gifted. To these, VanTassel-Baska and Brown (2007) add elements such as higher order thinking skills and inquiry-based learning.

With the aim of understanding best practice measures for the gifted population, a choice was made to help align a variety of recommended practices. The Integrated curriculum Model, due to the interconnectedness between advanced content, process/product dimension and concept/issues/themes and substantial longitudinal research was the conceptual framework selected in which to examine best practice. The

ICM enables a comprehensive teaching approach to varying levels of precocity, intensity and complexity inherent amongst the gifted population. Measures amongst these dimensions include teaching integrated skills across the curriculum and grades, school-based enrichment programmes, acceleration measures such as compacting and telescoping and extending critical and creative skills through the promotion of higher order thinking skills and inquiry-based learning.

Despite longstanding research within gifted education, the prevalence of differentiation measures within the school context is far from ideal. Similarly to the trends found in other studies (Olenchak, 2000; Westberg and Archambault, 1997; Westberg & Daoust, 2004; Westberg et al., 1993), Archambault et al. (1993) observed only minor modifications taking place in the USA. When minor adjustments were being made, these focussed primarily on advanced reading, exercises from higher level textbooks, project work and enrichment worksheets.

The disturbingly lack of differentiation present within the classrooms has been associated to placing too much emphasis on standardised test scores, unfavourable attitudes towards the gifted and their education and a lack of strong leadership which advocates for the gifted (VanTassel-Baska & Stambaugh, 2005). The lack of planning time as well as training to deal with an increasingly more diverse population have also been debated as challenging factors in the implementation of appropriate differentiation measures for the gifted.

CHAPTER II: METHODOLOGY

Methodology should not be a fixed track to a fixed destination but a conversation about everything that could be made of happen (Jones, 1992, p.73).

The purpose of the current investigation is to contribute to the literature on teachers' opinions of the gifted and their education as well as explore how teachers accommodate these learners' needs in the classroom. This chapter will focus on the methodology of the research study and aims to outline the following areas: first the research questions and then the research design. The research design is then divided into i) instrumentation; (ii) sample and data collection procedures; and an (iii) an overview of the data analysis carried out for this study. The last section will elaborate upon limitations and delimitations of the current research, followed by a summary of the chapter.

II. 1. Research Questions

There were three research questions that were developed in order to guide the research:

- 1) What opinions do secondary teachers of English as a Foreign Language in Portugal hold concerning gifted learners and their education?
- 2) How do secondary teachers of English as a Foreign Language in Portugal perceive the way they differentiate instructional practice to accommodate their gifted learners?
- 3) How do secondary teachers of English as a Foreign Language in Portugal differentiate instructional practice to accommodate their gifted learners?

An overview of the research questions and instruments used can be seen in Table 1.

Table 1

Overview of Research Questions and Instruments used

Research Questions	Instrument
What opinions/attitudes do secondary teachers of English (as a Foreign Language) hold concerning gifted learners and their education?	The Attitudes Towards Giftedness Survey (OGE)(Gagné & Nadeau, 1991) Online Survey
How do secondary teachers of English perceive the way they differentiate instructional practice to accommodate their gifted learners?	An adapted version of The Classroom Practices Questionnaire (CPQ) (Archambault et al., 1993) Online Survey
	Semi-structured interviews (adapted from Albergaria & Bahia, 2012)
How do secondary teachers differentiate instructional practice to accommodate their gifted learners?	The Classroom Observation Scale-Revised (VanTassel-Baska et al., 2003)

II. 2. Research Design

II. 2.1 Instrumentation

Instrument used to examine how teachers perceive the way they differentiate instructional practice to accommodate their gifted learners:

An adapted version of the Classroom Practices Questionnaire (CPQ) – Online Survey

Part 1

APPENDIX A

Archambault, Wesberg, Brown, Hallmark, Zhang, & Emmons (1993)

What happens within the classroom has a deep impact on how gifted learners feel about school, engage with their school subjects and the career choice they make. What happens to these very bright students within the regular classroom is of fundamental importance and merits substantial in-depth exploration.

The Classroom Practices Survey was carried out by the National Research Center of the Gifted and Talented (NRC/GT) to ascertain the extent to which gifted and talented students receive differentiated education in mainstream American classrooms. The CPQ has been applied in large scale studies with a varying number of participants (Archambault et al. 1993; Westberg & Daoust, 2003) in third to seventh grades. Archambault et al. (1993) applied the questionnaire to approximately 7,300 third and fourth grade teachers across the nation. These randomly selected participants filled forms requesting: (1) teacher background information; (2) school gifted policies and district information; (3) classroom issues; and (4) instructional practices applied within the classroom. The major finding from this study was that only very minor modifications were made to cater for the gifted in regular American classrooms. This was verified in both public and private schools as well as across schools with high concentrations of different ethnic minorities.

In the study at hand, only an adapted version of the teacher information form and classroom practices sections were utilised as sections two and three were deemed as unnecessary. Although permission was requested, it was unnecessary as the CPQ is not copyrighted. The information on teacher demographics and self-report data comprised of both multiple choice questions and open answer questions. Respondents gave information on: (1) gender; (2) age; (3) type of school; (4) years of teaching experience; (5) number of weekly hours of English taught to each class; (6) highest degree earned; (7) whether they had taken part in any gifted educational courses at university or (8) while teaching; (9) if they perceived themselves to be gifted; (10) if they have any gifted family members; and (11) if they had formally or informally identified children in their classrooms. The second part of this online survey required teachers to report both their own practices with gifted and average students. In this manner, the researcher was able to understand what differential educational experiences were being provided for the gifted learners.

With the purpose of exploring the changes over a period of ten years, Westberg & Daoust (2003) replicated the study involving only two states. One thousand three hundred and thirty six third and fourth grade teachers participated. Results closely mirrored those found in the study by Archambault et al. (1993). It was found that despite a ten-year difference and considerably more professional development amongst

the participants, little or no modifications were being carried out to accommodate the gifted learners in the classroom.

The original CPQ comprises of 39 items. Teachers respond to each item for both gifted and average learners and opted from the following scale: never, once a month or less, a few times a week, daily and more than once a day. The 39 items were then reduced using principal factor analysis into six further factors or scales to improve interpretability: (1) Questioning and Thinking; (2) Providing Challenges and Choices; (3) Reading and Written Assignments; (4) Curriculum Modifications; (5) Enrichment Centres; and (6) Seatwork. The scales, question numbers, the total number of items for each and an example item can be seen in Table 2. The variance, except for two items (items 14 and 39), was found to be 38% (Archambault et al., 1993). The alpha reliability was found to be $r = .90$ for gifted students and $r = .94$ for average students.

Table 2

Classroom Practice Questionnaire (CPQ) scales

Scales	Items	Number of Items	Example Item
Questioning and Thinking	22,35,36,37,38	5	Ask open-ended questions.
Providing Challenges and Choices	18,23,24,25,26,27,28,29,30,31,32,33,34	13	Allow students within your classroom to work from a higher grade level textbook.
Reading and Written Assignments	3,5,6,7,9,10	6	Give creative or expository writing assignments on topics selected by the students.
Curriculum Modifications	12,13,15,16,19	5	Use pre-tests to determine if students know before a new topic is given.
Enrichment Centres	11,17,20,21	4	Encourage students to move around the classroom to work in various locations.
Seatwork	1,2,4,8	4	Use activities such as puzzles or word searches.

In order to assess the applicability of the survey to the Portuguese school context, it was first distributed to twenty teachers of English teaching grades five to 12 from public and private schools. After analysis of the surveys carried out as well as interviews with the participants, decisions were made to remove particular items and

modify the frequency scale. The frequency scale was adapted to the Portuguese system as most public schools do not have English more than twice a week. The scale was modified to: never, once a term, once a month, twice a month and once a week. The list of questions was filtered down to 26 items, not only to closely reflect practices that were deemed as more appropriate for a subject given twice a week on average but were also found to be irrelevant to the Portuguese context. Feedback from the piloting phase also demonstrated that there were some items that included potentially misleading language; items that were considered inapplicable to grades five to 12 were also removed. The following items were not used: use basic skills worksheets; use enrichment worksheets; assign reports; use basic skills worksheets; use enrichment centres; use self-directed instructional kits such as S.R.A.; use learning centres to reinforce basic skills; use enrichment centres; allow students to leave the classroom to work in another location such as the library or media centre; teach a unit on thinking skills such as critical thinking or creative problem solving; use contracts or management plans to help students organise their independent study projects; give assignments that encourage students to organise their own work schedule to complete a long range project; use computers; participate in a competitive program focusing on thinking skills/problems solving such as Future Problem Solving; Odyssey of Mind, etc., provide opportunities for students to use programmed or self-instructional materials at their own pace and give assignments that encourage students to organise their own work schedule to complete a long range project. In a few items, wording was tweaked to make the items more relevant to the reality of the context being explored. The 26 items were then put together to be administered as an online survey.

This adapted version of the CPQ was the chosen questionnaire for the part of the study which aimed to answer: How do secondary teachers of English in Portugal perceive the way they differentiate instructional practice to accommodate their gifted learners?

Instrument used in order to understand teachers' attitudes towards the Gifted and their Education:

Opinions about the Gifted and their Education Attitude Scale (OGE) - Online Survey

APPENDIX A

Gagné & Nadeau (1991)

A large array of differing attitudes towards the gifted and talented can be observed amongst the various stakeholders. Bégin & Gagné (1994) posit that this diversity of attitudes amongst politicians, educators and the general public must have underlying personal, experiential or contextual characteristics. Shedding light on these characteristics would mean identifying predictors that could help understand the course and magnitude of general attitudes towards the gifted.

In an attempt to understand what these predictors might be, a systematic review of the studies was carried out by Bégin & Gagné (1994a). However, none of the 48 variables analysed across 35 studies seemed to be consistent and systematic predictors of general attitudes towards the gifted. A link, albeit weak was found between general attitudes towards the gifted and self-perceptions of giftedness, gender, degree of contact with a gifted person, educational level and occupation as teachers. The authors highlighted the various flaws existent across the studies. These included the size, diversity and nonrepresentativeness of the sample used, the predictors taken into account and statistical limitations of the procedures used (Bégin and Gagné, 1994a, b). Subsequently, Bégin & Gagné (1994b) used the Opinions towards Giftedness Survey (1985) in a study where these inadequacies were directly addressed and which demonstrated two characteristics as describing 22% variance amongst attitudes; Socio-economic factor and the level of education of the respondent (McCoach & Siegle, 2007).

The scale used in this research, Opinions about the Gifted and their Education, comprises of 34 items which respondents rate on the Likert scale from 1 to 5 (1=strongly disagree, 2=disagree, 3= no opinion, 4=agree, 5=strongly agree). The items on the questionnaire were developed as a result of a systemic review of existing attitude scales within the field of gifted education, from newspaper and magazine articles and from interviews carried out to parents and teachers (Gagné & Nadeau, 1985). The original questionnaire (presented as two parallel surveys) included a total of 90 items

where 30 were common to both. Its content validity was ascertained by 10 gifted educational specialists. The reliability of the two parallel questionnaires was found to be $\alpha = .91$ (Bégin & Gagné, 1994). Gagné and Nadeau then carried out comparable factor structures across the two parallel surveys which resulted in the extraction of 34 items to compose the current revised version. Further analyses resulted in the emergence of six orthogonal dimensions which were used to create a more compact version of the questionnaire (Gagné & Nadeau, 1991).

The six dimensions that are explored within the OGE are first, Needs and Support in where the scale aims to look at respondents' beliefs about the needs and support for special services of the gifted. The second dimension, Resistance to Objections, is where participants' objections based on ideologies and other priorities are measured. The third dimension, Social Value, aims to understand participants' beliefs about the usefulness of gifted individuals in society. The fourth dimension, Rejection, measures attitudes related to the isolation of gifted persons by others in the immediate environment. The fifth dimension, Ability Grouping, refers to attitudes towards special homogenous groups, classes and schools. The sixth dimension, School Acceleration, discerns participants' opinions about acceleration and enrichment. Gagné suggests that means below 2.00 represent a very negative attitude, above 4.00 a very positive attitude and means between 2.75 and 3.5 indicate an attitude of ambivalence.

After having piloted the questionnaire and having it followed up with subsequent interviews with twenty teachers of English teaching fifth to 12th grades, a decision was made to maintain all the items as none seemed to have been considered misleading or inadequate for the Portuguese school context. As a result, the questions and scales were used as in the original survey, except in that these were transferred to an online survey. Each item (Table 3) measures one of the six dimensions mentioned above (Gagné & Nadeau, 1991).

The OGE has been used worldwide and has been translated into at least ten languages and used as an instrument to analyse attitudes in at least 21 countries (Gagné, 2018). Very recently however, in fact in the latter half of 2017, some flaws were identified by its author (Gagné, 2018). These aspects were analysed when handling the data in the current study and caution was taken to counteract these when ascertaining the reliabilities of the psychometric instrument. Details of these aspects are referred to in Chapter 4.

Table 3

Sub-scales in Gagné and Nadeau's Attitude Scale (OGE)

Sub-Scale	What it measures	Items	Number of Items	Example question
Needs and Support	Needs and support of special services	1, 9, 11, 14, 15, 24, 30, 32	8	The regular school program stifles the curiosity of gifted children.
Resistance to Objections	Objections based on ideologies and priorities	3, 4, 5, 12, 16, 18, 23, 26, 27, 28	10	Special programs for gifted children have the drawback of creating elitism.
Social Value	Value of gifted persons in society	13, 17, 25, 33	4	Gifted persons are a valuable resource for our society.
Rejection Items	Isolation of gifted individuals by others in the immediate environment	19, 22, 31	3	Some teachers feel their authority threatened by gifted learners.
Ability Grouping	Attitudes towards special homogenous groups, classes and schools	2, 6, 20, 21	4	By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good etc.
School Acceleration	Beliefs towards accelerative practices	7, 8, 10, 29, 34	5	A greater number of children should be allowed to skip a grade.

II. 2.1.1. Semi-structured interviews

The online survey above aimed to answer the questions: (1) What opinions/attitudes do secondary teachers of English as a Foreign Language hold concerning gifted learners and their attitudes; and (2) How do secondary teachers of English perceive the way they differentiate instructional practice to accommodate their gifted learners. Although the online survey would help to answer the above research questions, it was important for the researcher to analyse some aspects in more depth through a semi-structured interview. These interviews could possibly help to highlight some attitudes and practices which were not encompassed within the surveys. As Seidman (2006) states, interviews involve and engage individuals' consciousness which permits access to the most complex social and educational issues as these are abstractions based on the concrete experiences of people. According to Bernard (1988) semi-structured interviews are recommended when there is only one opportunity to interview the same person. Questions are listed but sufficiently open-ended to allow for slight modifications, digressions and reordering of questions to be made as the interview unfolds. It also includes a guide with a clear set of instructions which aims to collect

reliable and comparable data. More interestingly however, is the possibility of capturing insights that may have been overlooked by the choice of the instruments or that require further development and could possibly indicate areas of future research. Furthermore, it provides participants to tell their stories.

Interview questions derived from a study that aimed to look into challenges and needs of teachers teaching gifted learners in a heterogeneous classroom (Albergaria & Bahia, 2012). The researchers applied this in English to teachers working in Portugal. For the study at hand, only part of the interview questions were pertinent. The interview questions covered fundamental overarching topics and allowed to collect data on (1) the teacher's definition of gifted learners; (2) characteristics associated with giftedness in general and then in terms of language learning; (3) attitudes towards gifted children's social skills, acceleration, enrichment and priorities; (4) the practices implemented in order to cater for this subpopulation; and (5) current hurdles and future opportunities.

1. How do you define a gifted and talented learner?
2. What are some of the characteristics associated with giftedness?
3. What challenges do gifted and talented learners present to you in your classroom setting? (cognitive challenges and then language learning)
4. Do you do anything differently with them? If so, what? Can you give examples?
5. What would help you answer these students' needs in a more effective way?

Validity of the interview data was ensured through the accuracy of the interview data through member checking. Out of 15 interviews, eight replied back having validated their interviews.

Instrument used to examine teacher instructional practice in the classroom:

The Classroom Observation Scale-Revised

APPENDIX B

VanTassel-Baska et al. (2003)

Gifted education literature suggests that observation of teacher behaviour is a fundamental link to the implementation of differentiation (VanTassel-Baska et al., 2003). In fact, Sanders and Rivers (1996) concluded that the effects of ineffective teachers can lead to a reduction of student achievement in maths by 54% independently of the ability of the learner. Snapshots of instructional practices in place will further inform us of teacher behaviour and help implement positive change in education. The COS-R aims to do just that. Not only is it a tool that has been conceived based on best practice from empirically sound gifted literature but it can also be used for self-observations and to charter growth. Items such as higher order thinking, problem-solving and metacognition that are of paramount importance within gifted education are the focal aspects of this observation scale. Additionally, very much to the interest of the study at hand, it can also be applied to different age groups and varying subject areas.

In its piloting stage, it was referred to as the Classroom Observation Form (COF). It included 40 items in nine sub-categories and was piloted with 50 teachers participating in the Saturday Enrichment Program at the College of William and Mary. Alterations that were made involved reducing the number of sub-categories and items to improve reliability. Consequently, the COS-R now has 25 items of expected behaviours in six sub-categories which have enhanced internal consistency and is also easier to use. The six subscales are: (1) curriculum planning and delivery; (2) accommodation for individual differences; (3) problem solving strategies; (4) critical thinking strategies; and (5) creative thinking strategies and research strategies (Table 4).

Table 4

Sub-categories within COS-R

Sub-Categories	Items	Number of Items	Item example
Curriculum Planning and Delivery	1,2,3,4,5	5	The teacher incorporated activities for students to apply new knowledge.
Accommodations for Individual Differences	6,7,8,9	4	The teacher provided opportunities for independent or group learning to promote depth in understanding content.
Problem Solving	10,11,12	3	The teacher employed brainstorming techniques.
Critical Thinking Strategies	13,14,15,16	4	The teacher encouraged students to judge or evaluate situations, problems or issues.
Creative Thinking Strategies	17,18,19,20	4	The teacher solicited many diverse thoughts about issues or ideas.
Research Strategies	21,22,23,24,25	5	The teacher required students to gather evidence from multiple sources through research-based techniques (e.g., print, non-print, internet, self-investigation via surveys, interviews, etc.)

The rater then assesses the presence of a practice as effective (3), somewhat effective (2) or ineffective (1). VanTassel-Baska et al. (2003) explain the below:

1 = Ineffective. The teacher evidenced little or no planning and/or classroom flexibility in implementation of the behaviour. The teacher was unclear and unfocussed regarding the purpose of learning.

2 = Somewhat effective. The teacher evidenced some planning and/or classroom flexibility in implementation of the behaviour, eliciting some appropriate student responses. The teacher was sometimes clear and focussed on the purpose of learning.

3 = Effective. The teacher evidenced careful planning and classroom flexibility in implementation of the behaviour, eliciting many appropriate student responses. The teacher was clear, and sustained focus on the purpose of learning.

4 = N/O Not Observed. The listed behaviour was not demonstrated during the time of the observation.

The COS-R was applied on two waves of observations in the first two years of Project Athena (a government granted program in the US) to explore the effects of a

language arts curriculum on students' reading and critical thinking achievement in Grades three, four and five. In its complete form, it includes a form on teacher demographics as well as a form for students to complete in order to assess their responsiveness to the various practices. For the study at hand, only the classroom observation form was used. The scale was found to be highly reliable ($\text{Alpha}=.91$ to $.93$) (VanTassel-Baska, Quek, & Feng, 2006). The COS-R is technically a robust instrument; the content validity of the COS-R, in terms of the clarity and importance of the items were assessed and were found to be 0.86 and 0.99 respectively (VanTassel-Baska, Quek, & Feng, 2006). Furthermore, observations were carried out by pairs of trained observers to increase reliability of rating scores given.

In the current study, observations ranged between 45 minutes to an hour. The observations including the activities, timing and questions and answers that took place in the class were first scripted and the scoring was carried out later on the same day. These procedures were followed as per the application during Project Athena. During the piloting phase carried out on 10 participants, it was found that scripted notes carried out during the observations required more detail so that points were given between zero to three further on in the day. It also took some practice before the researcher was able to distinguish an unobserved practice (0) with an ineffective one (1). For a behaviour to be rated as "not observed", it meant it was not demonstrated in the time of the observation. In the statistical analysis this behaviour was considered neutral and did not impact the overall practice neither positively nor negatively. It is also important to highlight that due to the lack of resources and impossibility on behalf of many schools that agreed to participate in the study, training for observations, collaboration with a partner and a second round of observations had to be forgone.

Teacher demographics were collected via a form given before the observation which requested information on: (1) type of school; (2) years of teaching experience; (3) any training undertaken in gifted education; (4) any relatives that were gifted (5) whether the gifted students in the classroom were formally or informally identified; and (6) how many students within the observed classroom were considered either formally or informally gifted.

The COS-R was chosen to understand which gifted-friendly practices are prevalent when differentiating for the gifted in the classroom. It was not expected that all the practices would be observed within one class observation. As VanTassel-Baska

et al. (2003) posit, the observations are snapshots of instructional practices. The purpose of the COS-R in this study was to answer the following question: How do secondary teachers of English in Portugal differentiate instructional practice to accommodate their gifted learners?

II. 2.2. Sample and Data Collection

The population for this study comprised of public and private teachers of English as a Foreign Language teaching fifth to 12th grades. Participants work in heterogeneous classrooms in schools across Lisbon and Porto. An initial contact was made via e-mail to 10 private schools (three of which were international) and 20 public schools within the region of Lisbon. With the very low response encountered, an alternative approach was used where the researcher recruited participants from among acquaintances. Various people including colleagues, teachers, ex-students, psychologists and university professors were all contacted first by e-mail and then a phone call. This was carried in the middle of the first term of the school year 2015/2016. Care was taken to make contact when educators would not be commencing the school year and not too occupied with Christmas festivities. The e-mail contained an explanation of the aims of the study, a document as proof from the university and a link to the online survey. This group of acquaintances or points of contact either approached school administrators directly or requested teachers of English teaching from fifth to twelfth grades to participate by forwarding the online survey. Many participants completed the online survey (OGE and Adapted CPQ) in this manner. Some points of contact also chose to provide e-mail addresses of colleagues so that a direct contact could be made by me. In this case, two follow up e-mails were sent as reminders. Participants were asked to self-administer by clicking on a link directing them to the surveys. The survey included the aims of both the Opinions towards the Gifted and their Education Scale and Classroom Practices Questionnaire and an e-mail address was given in order for teachers to contact me in case they felt the need. Respondents also supplied demographic data. The survey also stated absolute confidentiality in that no name of the teacher was requested and neither did the name of the school need disclosure. Data was collected through a Google Survey and then transferred onto a file created by a computer software program (SPSS). It was believed that participants would

represent diversity in terms of age, number of years of experience in teaching and educational background.

The principals of each of the schools and the respective points of contact were notified with an explanation of the study. The OGE and Adapted CPQ online survey link were also included so that it could be seen and approved by these school administrators. Although the total number of schools that were contacted is unknown, six school administrators (from three private and three public schools) were willing to learn more about the research and meetings were set up. The meeting had the aim of describing the research aims, providing further information on how the data could be collected within the specific school context and ensuring confidentiality. The head of the English department was always present in the meetings and was a fundamental link for the work to proceed successfully. In the majority of the schools they were responsible for inviting their department teachers to volunteer (1) to fill the online survey and/or (2) allow for observations to take place within their classrooms. In total, $N=110$ teachers of English teaching from fifth to twelfth grades completed the online surveys which requested information on their classroom practices and their attitudes towards gifted students as well as gifted education.

In order to answer one of my research questions which aimed to understand how teachers differentiate for their gifted learners, it was deemed important to understand whether schools had information about their formally identified gifted students. The COS-R was to be used to observe how teachers accommodate gifted learners in heterogeneous classrooms. The researcher found that only three out of six schools had information on their gifted learners, i.e., six students across three schools had a report referring to their giftedness and within these, three that had been accelerated at some stage during previous school years. It must also be highlighted that all of the above gifted children were documented to have an all-rounded giftedness with no further mention of specific areas of talent. Care was also given in ensuring that all students were learning English as Foreign Language and were not native or bilingual students. In further meetings, the heads of department and teachers demonstrated a strong conviction that there were students within their classrooms who were gifted albeit not formally tested. With research positing that giftedness is present in 3%–5% of school age children (Pocinho, 2009) and with only recently emerging if not restricted identification procedures present in Portugal, it was considered significantly important to observe

classroom practice where teachers perceived to have students that were gifted. This data collected was deemed as valid on the grounds that the objective was to observe modifications teachers were implementing with these learners. After collecting information on which teachers were willing to be observed, e-mails notifying the target classrooms' parents of the observations were also sent. Department heads informed the parents about the aim of the study, assured confidentiality and demonstrated openness to answering any further questions as well as the option of not allowing the researcher in the classroom to observe. As there were no constraints imposed by the parents, the department head forwarded the classroom teachers' e-mail addresses in order for arrangements to be made. Further exchanges including informing the teachers about the aim of the observations, confidentiality and requesting timing of observations and availability for an interview were discussed and organised.

Therefore the sample of classroom dynamics that were observed involved both teachers teaching formally identified gifted learners and informally identified gifted learners. The total number of observations is $N=26$ where $N=7$ classroom dynamics involved formally gifted learners and $N=19$ informally identified learners. In one of the classrooms observed there were two formally identified gifted learners. A form was also given to the observed teachers at the end of the class to provide information on years of teaching experience, training in gifted education, any relatives who might be gifted and whether the gifted students in the classroom were formally or informally identified students.

The participants that volunteered for the interviews were primarily from the group that accepted to be observed. Nine participants out of the fifteen interviews were of teachers that had been observed. The remaining six participants were invited to be interviewed as they taught either French, German or Portuguese as a Foreign Language to formally identified gifted learners. The interviews were organised with the help of the head of the English department. These were recorded, transcribed and then analysed and took place over the course of the 2016/2017 school year.

II. 2.3. Data Analysis

A convenience sample of 110 secondary schoolteachers of English completed the online survey comprising of both the Opinions towards the Gifted and their Education Attitude

Scale (OGE) and an adapted version of the Classroom Practices Questionnaire (CPQ). Teachers also provided contextual data. Twenty-six teachers were observed and fifteen foreign language teachers agreed to take part in a semi-structured interview. Data from the participants was entered into SPSS by the researcher. A combination of quantitative and qualitative research strategies were used to shed light on teachers' attitudes and gifted-friendly practices.

II. 3. Limitations and Delimitations

II. 3.1. Delimitations

The intentional boundaries that were set limit the generalisability of the study. This study focussed on the attitudes and practices of teachers teaching fifth to twelfth grades towards gifted students. It also aimed for teachers of English as a Foreign Language to participate only. Findings cannot be generalised outside these areas.

II. 3.2. Instrumentation

There are various aspects that require referring to when looking at the validity and reliability of the instrumentation. The observations were one-time observations. One off classes may not truly reflect a teacher's practice. At least two observations of the same teacher working with the same group of children would have been ideal. Also, classes that were observed did not always have formally identified gifted students but were observed on the basis of referrals made by teachers. Whilst VanTassel-Baska et al. (2003) recommend reducing subjectiveness whilst observing by having two trained scorers, due to various time and financial constraints this was not possible in this study. Developers of the COS-R also refer to the need of further reorganisation of clusters. Further work is being carried out in this sense (VanTassel-Baska et al., 2006).

By having used an adapted version of the Classroom Practices Questionnaire, there may have been an impact on its robust validity. It is also worth considering that teachers may have trouble remembering exactly how frequently they carry out the various practices. All four instruments look at a portion of attitudes towards gifted learners and focus on a segment of gifted friendly education practices. It may be that other attitudinal or practice measures would produce different results.

Although semi-structured interviews allow for an in depth insight into matters which might not otherwise be developed, it has various limitations. For one the instrument relies on the skills of the interviewer and the articulacy of the interviewee. The researcher may also give out unconscious signals which may lead to biased and more favourable answers. This instrument may also not have high reliability in that the flexibility with which the questions can be asked may result in a non-standardised set of questions impacting the analysis of the answers. The researcher is also relying heavily on that all that is said is the truth.

II. 3.3. Clarity of survey instrument

One of the aims of the piloting phase was to reduce any misinterpretation of instructions or of the items. Although great efforts were made to minimise this vulnerability, it may still be present. As the surveys were self-administered with no researcher present to clarify any doubts or questions, this is a possibility. On the other hand, researcher bias was also minimised in this form.

II. 3.4. Differential selection

Despite an attempt to recruit a random sample, most of the respondents participated through an invitation made by acquaintances. In snowball samples participants recruit future subjects from among their networks, therefore initial informants play a major role. When virtual snowball samples are used, it can increase representativeness of the results despite involving only online populations which on the other hand may condition age, educational level and socioeconomic level. This type of non-random sample constrains the generalisability of the study. The snowballing effect also makes it difficult to understand the overall population size from which one is recruiting from. For example, this sample is limited in that participants are from two main cities, Lisbon and Porto. Besides this, there may be non-response bias i.e., there may be substantial differences in the attitudes and self-perceptions of respondents that volunteered to answer the online surveys or were willing to have a researcher observe and interview them versus the participants that did not. For example, non-participants may have more negative views towards giftedness or gifted learners than participants. This impact can have a negative effect on the generalisability of a study as the

responders may not share the same characteristics or views of those who chose not to respond. Motivation, socioeconomic status and prior-test taking experience may all have had an impact. One way of counteracting this would be to have a high response rate.

II. 3.5. Limited response rate

Population generalisability can be impaired without a solid, sizeable sample. Fraenkel and Wallen (2008) state that obtaining an appropriate and representative sample can be very difficult with surveys and that responses can be very low. In order to make generalisations, high response rates are essential. In this study, data can be used to give us insight rather than to make inferences about the broader population.

II. 3.6. Social desirability

It has been suggested that self-report participants may have answered in a manner viewed favourably by the researcher. For example while being observed, teachers may have carried out practices they very rarely use in class. Interview responses are also subject to this bias. Another form of bias that may exist is referred to as the “letterhead effect”. In order to explore this bias, McCoach and Siegle (2007) manipulated the letterhead effect in a study which aimed to understand respondents’ attitudes towards the gifted. Three different letterheads (University of Connecticut, Center for Equity and Equality or National Research Centre on the Gifted and Talented letterhead) were sent to 1,500 participants and no significant differences among the letterhead types was found. Nevertheless, this is a possible bias and may be a limitation in this study. Participants may have responded with the aim of enhancing perceived social desirability.

CHAPTER III: PRESENTING AND ANALYSING THE RESULTS

What I find hard to tell them, because I can't define it, is that he has lost, or rather is no longer to display, the 'spark' that he always had. This was the sharpness; often humorous comment; the sudden bubbling over of enthusiasm when he starts following through a series of ideas. It is rather like a stone with many sharp edges; they have knocked these edges off and as a result he is rolling more smoothly in class and they are happy about that. I feel that they have caused him to bury an important part of himself. It is still there; it bursts out at home now and again, but he has learned to keep it hidden. I hope you know what I mean, because I have tried to explain it to the teachers and I fail every time. They believe they have had great success, but I know they are depressing some vital spark.

Edward Murphy, father of a gifted child

(Gross, 2004, p.167).

III. 1. Introduction

This chapter provides and analyses the results and findings which aim to contribute to the literature on teachers' opinions of the gifted and their education as well as explore to what extent teachers accommodate these learners' needs in the English as a Foreign Language Classroom in secondary schools in Portugal. The research questions guiding the study included:

- 1) What attitudes do secondary teachers of English as a Foreign Language in Portugal hold concerning gifted learners and their education?
- 2) How do secondary teachers of English as a Foreign Language in Portugal perceive the way they differentiate instructional practice to accommodate their gifted learners?
- 3) How do secondary teachers of English as a Foreign Language in Portugal differentiate instructional practice to accommodate their gifted learners?

Each of the above research questions were analysed with the help of three instruments: Opinions towards the Gifted and their Education (OGE), an Adapted Classroom Practices Questionnaire (Adapted CPQ) and the Classroom Observation Scale-Revised (COS-R) (Table 5). Further insight on practices carried out in the classroom were collected via a semi-structured interview.

This chapter presents the (i) reliabilities of the questionnaires by analysis of the internal consistencies as well as the results of Factorial Analysis (ii) information on demographics and other self-report data with the use of description statistics and (iii) analyses to identify any variables that may characterise teachers' attitudes, self-reported gifted-friendly practices and observed classroom practices. The table below summarises the number of teachers data was collected from in each of the instances as well as the statistical analyses that were used. One-hundred and ten teachers completed online surveys comprising of both the OGE and the Adapted CPQ. Due to various challenges and extenuating circumstances only 26 teachers were observed and fifteen teachers were interviewed. At the end of the chapter, a summary of the findings will be presented.

Table 5

Research questions, instruments and sample sizes

Research Questions	Instrument	Sample Size
What opinions/attitudes do secondary teachers of English (as a Foreign Language) hold concerning gifted learners and their education?	Opinions towards the Gifted and their Education (OGE) (Gagné & Nadeau, 1991) Online Survey	N=110
How do secondary teachers of English perceive the way they differentiate instructional practice to accommodate their gifted learners?	An adapted version of The Classroom Practices Questionnaire (CPQ) (Archambault et al., 1993) Online Survey	N=110
	Semi-structured Interviews (Albergaria & Bahia, 2012/2013)	N=15
How do secondary teachers differentiate instructional practice to accommodate their gifted learners?	The Classroom Observation Scale-Revised (VanTassel-Baska et al., 2003)	N=26

III. 2. Reliability of the Instruments

In order to answer the questions put forth in this thesis, the researcher proceeded onto analysing the data collected from the questionnaires as well as the interviews. The following literature was used to guide the statistical analysis obtained: Angers, 1992; Balbinotti, 2005; Bisquera, 1987; Bryman and Cramer, 1999; Cronbach and Meehl, 1955; Dassa, 1999; Nunnally, 1978; Pestana and Gageiro, 2003; Reis, 2001; Trudel and Antonius, 1991 and Vallerand, 1989. This section comprises in ascertaining internal consistency using Cronbach's Alphas and a Principal Component Analysis to evaluate the construct validity of the questionnaires.

III. 2.1. Reliability of the *Opinions about the Gifted and their Education* Instrument

Despite some of the shortcomings of the OGE as acknowledged during the unfolding of the psychometric analysis and confirmed by Gagné (2018) in a recent conference held in Dubai, these aspects were examined and counteracted with caution in this next section. Gagné pointed out that correlations between subgroup scores were not ensured, values of factorial components were found to be weak and some of the groups comprised of very few items for these to be used (Gagné, 2018). Hence, detailed analyses of correlations amongst items, measurement of Cronbach Alphas and Exploratory Factorial Analyses ensued; this led to the elimination of certain items as well as the removal of two groups. The OGE required some restructuring. The various steps are described throughout the first part of this chapter.

Prior to measuring the data obtained from the responses given by the 110 teachers, an analysis to verify the internal consistency of each construct was carried out. Internal consistency can be thought of the extent to which all of the items of a test measure the same latent variable, i.e., are the responses within each construct similar? However, before this could be done it was fundamental to establish the reliability of the observed mean values as the presence of outliers, whether moderate or severe, (Pestana & Gagueiro, 2003) could obscure and undermine any conclusions attained (Balbinotti, 2005).

III. 2.1.1. Needs and support

In the Needs and Support construct, the presence of outliers (Figure 5) in Questions 1, 14 and 15 were shown to condition the results obtained (Table 6).

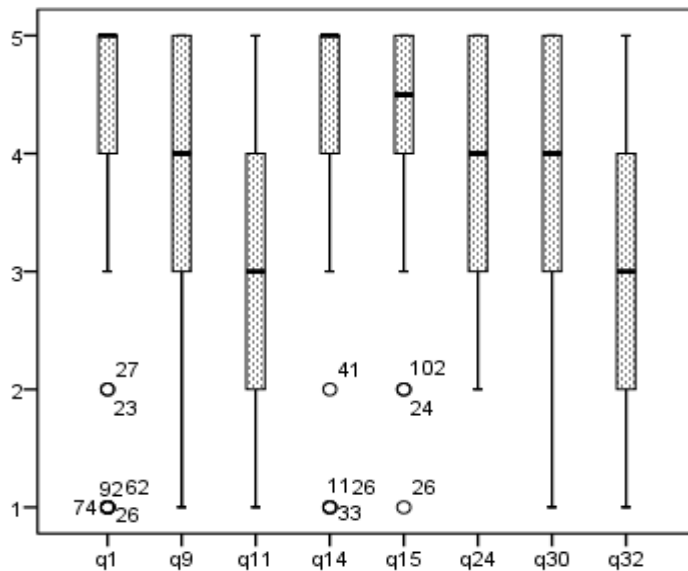


Figure 5. Identification of outliers in the "Needs and Support" construct

The means of the eight items referring to the Needs and Support construct ranged between 3.03 and 4.48 with standard deviations between 0.854 and 1.190 (Table 6). These preliminary findings were deemed unfavourable as they signify a high level of variability in the responses given. The variation coefficient values range from medium ($15\% \leq CV \leq 30\%$) to high ($> 30\%$) which denotes a lack of homogeneity in the dispersion, independently of the item being analysed. Questions 1, 14 and 15 also seemed to yield predominantly more positive attitudes, i.e., the means ($M = 4.27, 4.48, 4.35$ respectively) were very close to the extreme value (5).

Table 6

Statistics of “Needs and Support” construct

	Mean	Std. Deviation	CV
q1	4.27	1.133	26.51%
q9	4.07	1.064	26.13%
q11	3.03	1.104	36.48%
q14	4.48	.854	19.05%
q15	4.35	.785	18.03%
q24	3.75	.962	25.68%
q30	3.96	1.040	26.23%
q32	3.28	1.190	36.25%

The mean obtained in the Needs and Support dimension ($M=31.20$ points) was considered too high (Table 7). An expected mean would be of 24 points with a standard deviation of 4.543 and a low variation coefficient ($CV = 14.56\%$). Taking into consideration the scale of responses, the expected values for this construct should vary between 10 and 40 points (Table 7). It was found, however, that this amplitude was due to case 26, an outlier that obtained only 10 points (Figure 6). In other words, the responses given by this respondent were very different from the variation of responses given within this construct.

Table 7

Statistics of the “Needs and support” construct

	C1
N	110
Mean	31.20
Std. Deviation	4.543
Minimum	10
Maximum	40
Percentiles	
25 th	28.00
50 th (Median)	31.00
75 th	34.00

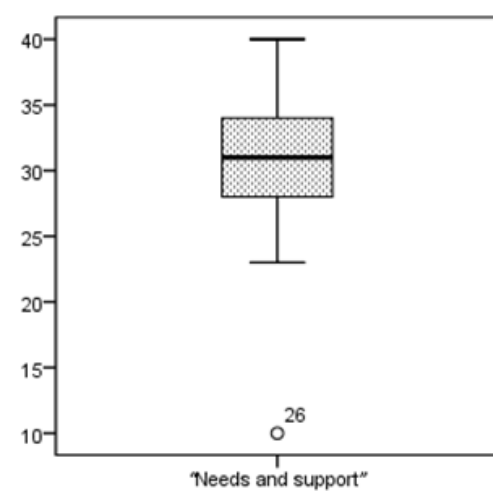


Figure 6. Distribution of Means in the “Needs and Support” construct

The elimination of case 26 only elevated the mean from 31.20 to 31.39, maintaining practically the same values in the quartiles. Hence, we opted to maintain 26 and study the distributional behaviour according to the Assumption of Normality. As the sample consisted of 110 respondents, the Kolmogorov-Smirnov correction test with *Lilliefors* was used (Table 8). The *p*-value of the test was found to be above 0.05 (0.071); this value means that the normality hypothesis test of the population is acceptable. In other words, the population this sample represents is normally-distributed. Moreover, the *p*-value obtained in the *One-Sample Kolmogorov-Smirnov Test* without the Lilliefors Significance Correction (*Exact Sig.*) was =.438. This value is much higher than 0.071, strengthening the normality hypothesis test of the population distribution further. The above test, enabled the usage of responses received from case 26.

Table 8

One-Sample Kolmogorov-Smirnov Test- “Needs and Support” construct

		C1
N		110
Normal Parameters ^{a,b}	Mean	31.20
	Std. Deviation	4.543
Most Extreme Differences	Absolute	.081
	Positive	.054
	Negative	-.081
Test Statistic		.081
Asymp. Sig. (2-tailed)		.071^c
Exact Sig. (2-tailed)		.438
Point Probability		.000
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Lastly for this construct, an item-to-item correlation was carried out to understand how the questions correlate with each other. As the items are ordinal, Spearman’s correlation was used. In addition, Spearman's correlation determines the strength and direction of the monotonic relationship (not linear) between the two variables. As can be seen in Table 9 below, correlations were found to range from moderate to weak (0.013 and 0.492) and some were found not to correlate at all. The strongest correlation (0.492) was found between Questions 24 “In order to progress, a society must develop the talents of gifted individuals to a maximum” and 15 “The gifted

need special attention in order to fully develop their talents”, while the weakest correlation (0.013) between Questions 11 “The gifted waste their time in regular classes” and 30 “Since we invest supplementary funds for children with difficulties, we should do the same for the gifted”. The question that shows least correlation in the construct is Question 32 whereby there is a weak correlation with Questions 9 (0.206) “Gifted children are often bored in school” and 11 “The gifted waste their time in regular classes” (0.202) and no correlation at all with the remaining questions. As a result, it was deemed important to remove Question 32 “The regular school program stifles the intellectual curiosity of gifted children” from the questionnaire.

Table 9

Item-to-Item correlations in the “Needs and Support” construct

		q1	q9	q11	q14	q15	q24	q30	q32
Spearman's rho	q1	1.000							
	q9	.275**	1.000						
	q11	.070	.483**	1.000					
	q14	.296**	.421**	.202*	1.000				
	q15	.168	.340**	.283**	.487**	1.000			
	q24	.197*	.223*	.311**	.383**	.492**	1.000		
	q30	.298**	.116	.013	.112	.255**	.237*	1.000	
	q32	.132	.206*	.202*	.115	.063	.089	.153	1.000

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

Efforts were then directed towards calculating the internal consistency coefficient using *SPSS* (version 23 for *Windows*). The model was proposed by Cronbach (1996). According to Pestana and Gageiro (2003) the following criteria should be used: alpha values above 0.80 are favourable; values above 0.70 are recommended and values within 0.60 and 0.70 are acceptable in the Social Sciences fields. Hence, in the study at hand, any value above 0.60 was interpreted as representing satisfactory internal consistency. Any lower internal consistencies would mean a lack of general agreement amongst the questions per construct and require elimination of certain items that are poorly correlated with the other or inclusion of one or more reliable items.

The Needs and Support construct was found to have an alpha coefficient of $\alpha = 0.678$ (Table 10), signalling favourable internal consistency.

Table 10

Internal consistency of the “Needs and Support” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.678	.696	8

Nevertheless, Table 11 shows us that the elimination of Question 32 could aid in increasing the internal consistency of the construct ($\alpha = 0.686$). Additionally, this item correlated weakly with the other questions (0.231) and only 8.2% of the observed variability in this item can be explained by others. The elimination of Questions 1 and 30 could also result in increasing the internal consistency of the construct (Table 11).

Table 11

Item-Total Statistics of the Needs and Support construct

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
q9	27.13	15.213	.517	.418	.609
q11	28.17	16.144	.369	.351	.648
q14	26.72	16.736	.454	.320	.632
q15	26.85	16.682	.521	.381	.622
q24	27.45	16.819	.367	.246	.648
q1	26.93	16.710	.286	.125	.670
q30	27.24	16.971	.302	.177	.663
q32	27.92	16.957	.231	.082	.686

Theoretically and based on the analysis above, the Needs and Support construct should comprise of Questions 9, 11, 14, 15 and 24. These assertions can be further confirmed in the statistically significant correlations ranging from 0.223 to 0.492 demonstrated in Table 12.

Table 12

Item-to-Item Correlations in the “Needs and Support” construct

		q9	q11	q14	q15	q24
Spearman's rho	q9	1.000				
	q11	.483**	1.000			
	q14	.421**	.202*	1.000		
	q15	.340**	.283**	.487**	1.000	
	q24	.223*	.311**	.383**	.492**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

III. 2.1.2. Resistance to objections

In the Resistance to Objections construct, the presence of various outliers (Figure 7) in Questions 16, 18, 23, 27 and 28 were identified.

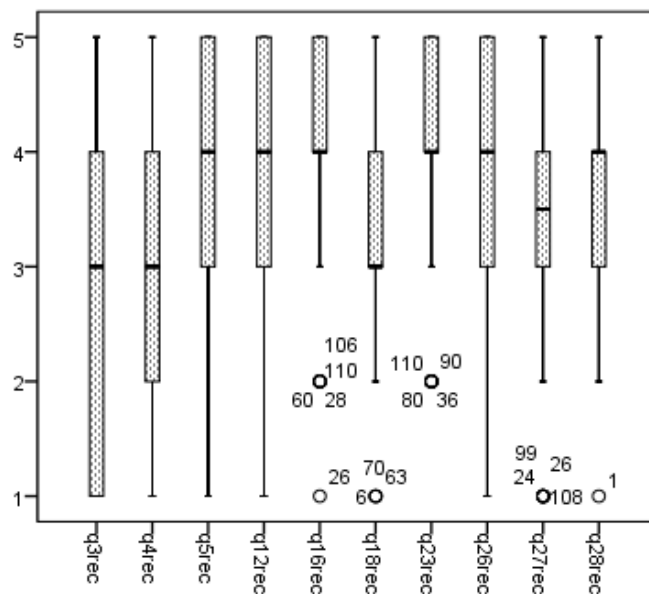


Figure 7. Identification of outliers in the “Resistance to Objections” construct

The means of the 10 items referring to the Resistance to Objections construct ranged between 2.69 and 4.26 with standard deviations between 0.895 and 1.353 (Table 13), denoting high levels of variability in the responses given. The variation coefficient values range from medium ($15\% \leq CV \leq 30\%$) to high ($> 30\%$) which similarly to the previous construct, denotes a lack of homogeneity in the dispersion independently of the item being analysed.

Table 13

Statistics for the “Resistance to Objections” construct

	Mean	Std. Deviation	CV
q3rec	2.69	1.353	50.27%
q4rec	3.11	1.237	39.77%
q5rec	3.90	1.188	30.47%
q12rec	3.49	1.332	38.17%
q16rec	4.26	.895	21.00%
q18rec	3.15	.900	28.54%
q23rec	4.10	.918	22.40%
q26rec	3.97	1.215	30.58%
q27rec	3.45	1.106	32.01%
q28rec	3.66	.989	26.99%

As in the Needs and Support construct, the means obtained in the Resistance to Objections (Table 14) was found to be quite high ($M=35.800$ points). The expected values should vary between 16 and 49 points. Again, the data collected from respondent 26 proved to be the reason behind this (Figure 8).

Table 14

Statistics for the “Resistance to Objections” construct

N	Valid	110
	Missing	0
Mean		35.800
Std. Deviation		5.816
Minimum		16.00
Maximum		49.00
Percentiles	25	32.000
	50	36.000
	75	39.250

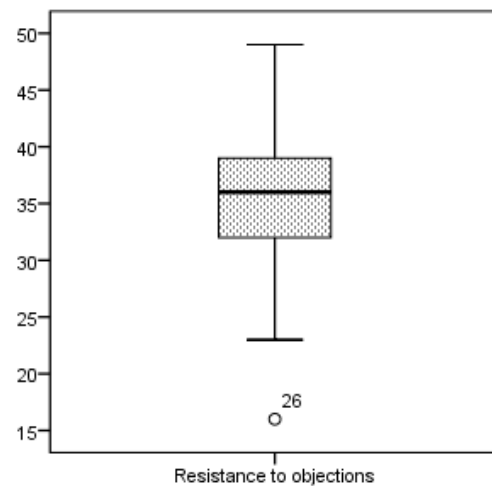


Figure 8. Distribution of Means in the “Resistance to objections” construct

The p -value of the test was found to be above 0.05 (0.200) signifying that the sample represents a normal distribution (Table 15). Moreover, the p -value obtained in the *One-Sample Kolmogorov-Smirnov Test* without the Lilliefors Significance Correction (*Exact Sig.*) was =.791. This value is much higher than 0.200, strengthening the normality hypothesis test of the population.

Table 15

One-Sample Kolmogorov-Smirnov Test – “Resistance to Objections” construct

		C2
N		110
Normal Parameters ^{a,b}	Mean	35.800
	Std. Deviation	5.816
Most Extreme Differences	Absolute	.061
	Positive	.046
	Negative	-.061
Test Statistic		.061
Asymp. Sig. (2-tailed)		.200^{c,d}
Exact Sig. (2-tailed)		.791
Point Probability		.000
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

As can be seen in Table 16, correlations were found to range from weak to moderate (0.060 and 0.414) while some were found not to correlate at all. The most significant correlation (0.414) was found between Question 16 “Our schools are already adequate in meeting the needs of the gifted” and Question 23 “The gifted are already favoured in our schools”.

Table 16

Item-to-item Correlations in the “Resistance to Objections” construct

		q3rec	q4rec	q5rec	q12rec	q16rec	q18rec	q23rec	q26rec	q27rec	q28rec
Spearman's rho	q3rec	1.000									
	q4rec	.048	1.000								
	q5rec	.341**	.282**	1.000							
	q12rec	.371**	.091	.190*	1.000						
	q16rec	.052	.056	.015	.185	1.000					
	q18rec	.242*	-.060	.034	.071	-.039	1.000				
	q23rec	.178	.060	.026	.348**	.414**	.024	1.000			
	q26rec	.237*	.105	.260**	.265**	.227*	.257**	.363**	1.000		
	q27rec	.141	.064	.215*	.345**	.115	.173	.220*	.285**	1.000	
	q28rec	.042	.295**	.257**	.159	-.016	.139	.178	.356**	.401**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The Resistance to Objections construct was found to have an alpha coefficient of $\alpha = 0.695$ signalling favourable internal consistency. However, by removing Question 4, “Special programs for gifted children have the drawback of creating elitism,” the internal consistency of the construct could be increased to $\alpha = 0.701$ (Tables 17 and 18) furthering the reliability of the responses given.

Table 17

Item-Total Statistics for the “Resistance to Objections” construct

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
q3rec	33.11	26.373	.405	.304	.662
q4rec	32.69	29.592	.201	.160	.701
q5rec	31.90	27.687	.378	.276	.667
q12rec	32.31	26.271	.424	.263	.658
q16rec	31.54	30.673	.238	.199	.689
q18rec	32.65	30.965	.205	.158	.694
q23rec	31.70	29.441	.356	.294	.673
q26rec	31.83	26.181	.497	.321	.644
q27rec	32.35	27.458	.444	.269	.656
q28rec	32.14	28.688	.393	.308	.666

An internal consistency of 0.701 signifies that the Resistance to Objections construct had recommended reliability.

Table 18

Internal consistency of the “Resistance to Objections” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	Based on N of Items
.701	.696	9

III. 2.1.3. Social value

In the Social Value construct, outliers were detected in Questions 23 “The leaders of tomorrow’s society will come mostly from the gifted of today” and 25 “By offering special educational services to the gifted we prepare the future members of a dominant class” (Figure 9).

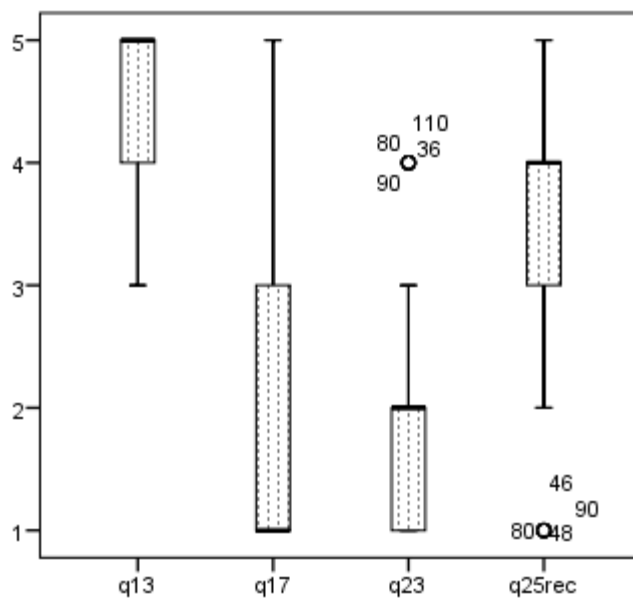


Figure 9. Identification of outliers in the “Social Value” construct

The means of the four items referring to the Social Value construct ranged between 1.89 and 4.49 with standard deviations between 0.701 and 1.179, signifying unfavourable levels of variability (Table 19); the variation coefficient values were also deemed unsatisfactory.

Table 19

Statistics for the “Social Value” construct

	Mean	Std. Deviation	CV
q13	4.49	.701	15.60%
q17	1.89	1.103	58.35%
q33	1.90	.918	48.33%
q25rec	3.47	1.179	33.94%

The mean obtained in the Social Value dimension ($M=11.75$ points) was considered high. The expected values for this construct should vary between eight and 16 points (Table 20).

Table 20

Statistics for the “Social Value” construct

C3		
N	Valid	110
	Missing	0
Mean		11.754
Std. Deviation		1.692
Minimum		8.00
Maximum		16.00
Percentiles	25	10.000
	50	12.000
	75	13.000

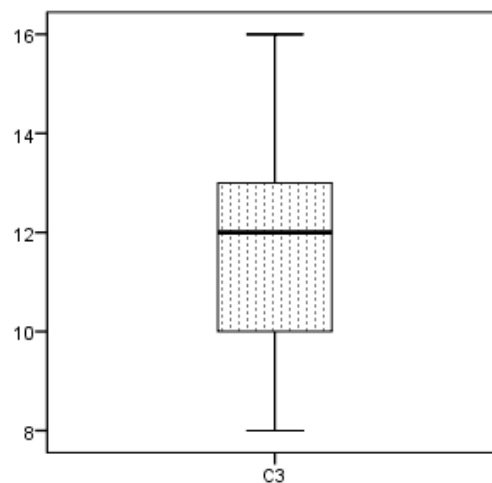


Figure 10. Distribution of Means in the “Social Value” construct

The p -value obtained in the *One-Sample Kolmogorov-Smirnov Test* without the Lilliefors Significance Correction (*Exact Sig.*) was $=.062$ (Table 21). The p -value of the test was found to be higher (0.00) meaning this sample can be considered to be normally distributed.

Table 21

One-Sample Kolmogorov-Smirnov Test - "Social Value" construct

		C3
N		110
Normal Parameters ^{a,b}	Mean	11.754
	Std. Deviation	1.692
Most Extreme Differences	Absolute	.124
	Positive	.124
	Negative	-.112
Test Statistic		.124
Asymp. Sig. (2-tailed)		.000^c
Exact Sig. (2-tailed)		.062
Point Probability		.000
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

This construct asked secondary teachers of English to respond to the following: Question 13 "Gifted persons are a valuable resource for our society,"; Question 17 "I would very much like to be considered a gifted person,"; Question 23 "The gifted are already favoured in our schools"; and Question 25 "By offering special educational services to the gifted we prepare the future members of a dominant class." However, correlations were found to be between 0.332 and 0.117 (Table 22) denoting little correspondence amongst the various items within this construct. Hence, the construct of Social Value as measured by the following questions was judged to be inadequate and not sufficiently robust to be used.

Table 22

Item-to-item Correlations in the "Social Value" construct

		q13	q17	q23	q25rec
Spearman's rho	q13	1.000			
	q17	.078	1.000		
	q23	.029	.117	1.000	
	q25rec	-.119	-.196*	-.332**	1.000

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

III. 2.1.4. Rejection

The construct measuring Rejection obtained a mean of 8.645 (Table 23) while expected values needed to fall between three and 15 (Table 23 and Figure 11).

Table 23

Statistics for the “Rejection” construct

c4		
	Valid	110
	Missing	0
Mean		8.645
Std. Deviation		2.88
Minimum		3.00
Maximum		15.00
Percentiles		7.000
		9.000
		11.000

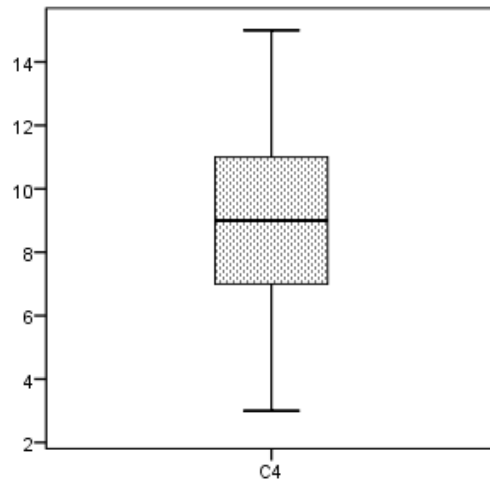


Figure 11. Distribution of Means in the “Rejection” construct

The Rejection construct, as measured by “A child who has been identified as gifted has more difficulty in making friends” (Question 19), “Some teachers feel their authority threatened by gifted children” (Question 22) and “Often gifted children are rejected because people are envious of them” (Question 31) was found to have an alpha coefficient of $\alpha = 0.742$ (Table 24) signalling favourable internal consistency.

Table 24

Internal consistency of the “Rejection” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	Based N of Items
.742	.745	3

No further elimination could yield a higher coefficient. Correlations were also favourable ranging from 0.399 to 0.561 (Table 25), resulting in this construct being maintained intact with all its original questions.

Table 25

Item-to-Item Correlations in the “Rejection” construct

			q19	q22	q31
Spearman's rho	q19	Correlation Coefficient	1.000		
	q22	Correlation Coefficient	.399**	1.000	
	q31	Correlation Coefficient	.441**	.561**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

III. 2.1.5. Ability grouping

The mean obtained in the Ability Grouping dimension ($M=11.327$ points) was considered high (Table 26 and Figure 12).

Table 26

Statistics for the “Ability Grouping” construct

C5		
N	Valid	110
	Missing	0
Mean		11.327
Std. Deviation		3.112
Minimum		4.00
Maximum		18.00
Percentiles	25	9.000
	50	11.500
	75	14.000

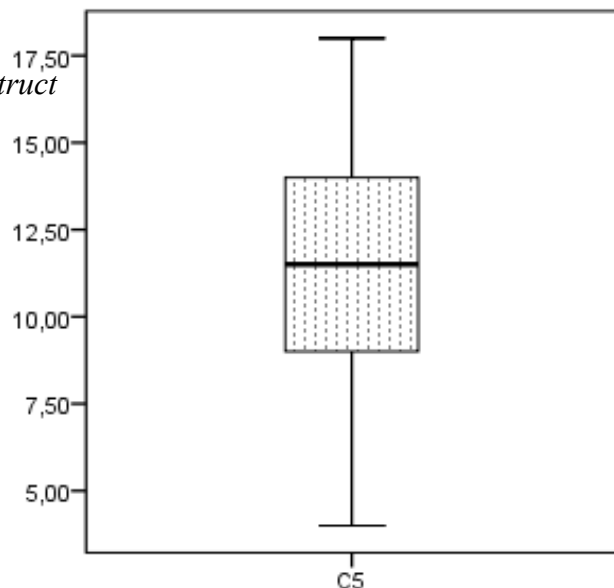


Figure 12. Distribution of Means in the “Ability Grouping” construct

The internal consistency of the Ability Grouping construct with four items was found to be $\alpha = 0.630$ (Table 27) which is an adequate value of reliability.

Table 27

Internal consistency of the “Ability Grouping” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.630	.643	4

Correlations were found to be between (0.199 and 0.456). As can be seen in Table 28, the correlations were found to be weak to strong in between all the items (0.199 to 0.456); hence the construct of Ability Grouping as measured by the below questions was judged satisfactory.

Table 28

Item-to-Item Correlations in the “Ability Grouping” construct

	q2	q20rec	q21rec	q6rec
Spearman's rho q2	1.000			
q20rec	.334**	1.000		
q21rec	.313**	.456**	1.000	
q6rec	.204*	.199*	.300**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

III. 2.1.6. Acceleration

While the expected values should be between eight and 24 (Table 29 and Figure 13), the mean obtained in the Acceleration dimension ($M=15.3727$ points) was considered high.

Table 29

Statistics of the “Acceleration” construct

C6		
N	Valid	110
	Missing	0
Mean		15.372
Std. Deviation		2.844
Minimum		8.00
Maximum		24.00
Percentiles	25	14.000
	50	15.000
	75	17.000

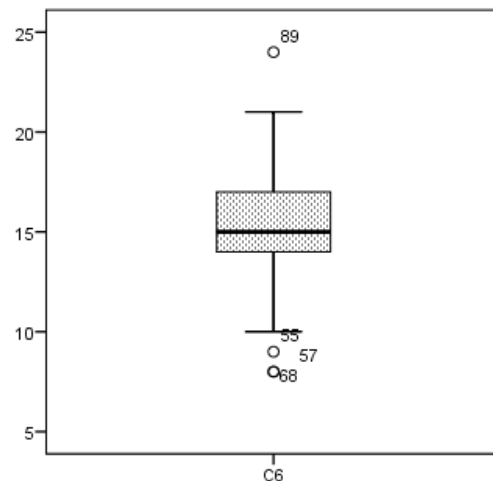


Figure 13. Distribution of Means in the “Acceleration” construct

The item to item correlation found correlations between 0.017 and 0.342 which are considered weak (Table 30).

Table 30

Item-to-Item Correlations in the “Acceleration” construct

	q7rec	q8	q34	q29rec	q10rec
Spearman's rho	1.000				
q8	.148	1.000			
q34	.156	.239*	1.000		
q29rec	.342**	.070	.174	1.000	
q10rec	.173	.091	-.017	.268**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Moreover Cronbach's Alpha coefficient was as low as $\alpha = 0.468$ (Table 31). This construct was deemed inadequate and therefore the responses were not analysed further.

Table 31

Internal consistency of the “Acceleration” construct

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.468	5

III. 2.1.7. Factorial analysis of the revised OGE

The preliminary analysis seen above led to the removal of constructs and suppression of particular items from specific constructs. The means and standard deviations of these 19 proposed items for a revised version of the OGE, one which would be adequate for this particular sample, can be seen below (Table 32). Nonetheless, these values denote a wide dispersion (see Figure 14) signalling a lack of consensus amongst the answers given. This lack of consensus could result in diminishing the likelihood of reaching any significant conclusions. Hence, a statistical analysis was required to verify whether these proposed items could be used regardless of this observed dispersion.

Table 32

Means and Variations of 19 proposed items for a Revised OGE

	Mean	Variance	Skewness	
	Statistic	Statistic	Statistic	Std. Error
q2	2.69	1.427	.227	.230
q9	4.07	1.132	-.985	.230
q14	4.48	.729	-2.284	.230
q15	4.35	.616	-1.417	.230
q19	2.87	1.268	.059	.230
q24	3.75	.925	-.033	.230
q30	3.96	1.081	-.924	.230
q31	2.95	1.226	-.180	.230
q3rec	2.69	1.830	.265	.230
q5rec	3.90	1.412	-.873	.230
q12rec	3.49	1.775	-.419	.230
q16rec	4.26	.801	-1.252	.230
q26rec	3.97	1.476	-.978	.230
q27rec	3.45	1.223	-.360	.230
q28rec	3.66	.978	-.322	.230
q21rec	2.41	1.161	.374	.230
q20rec	2.84	.890	.469	.230
q6rec	3.39	1.635	-.369	.230
q22	2.83	1.704	.050	.230

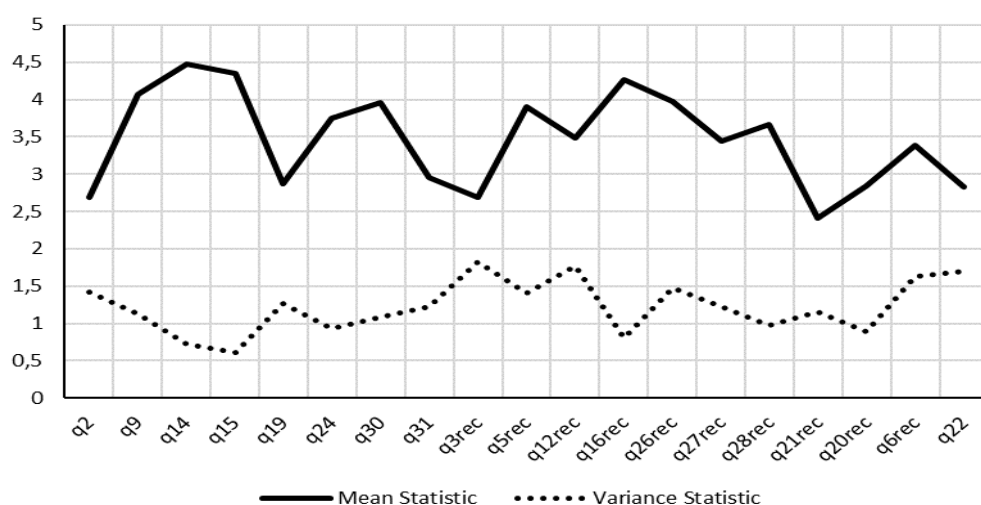


Figure 14. Mean and Variance Statistics of 19 proposed Items for a Revised OGE

Although the items did not demonstrate a normal distribution, independently of the p -value of the researcher, *Analysis of the Mardia's (1970) multivariate asymmetry Skewness did not result in a strong asymmetry within the distribution* (Table 33), enabling the usage of the 19 proposed items.

Table 33

Analysis of the Mardia's (1970) multivariate asymmetry skewness of the 19 proposed Items for a Revised OGE

	Coefficient	Statistic	df	P
Skewness	105.422	1932.731	1330	1.0000
Skewness corrected for small sample	105.422	1990.822	1330	1.0000

Maximum Likelihood (ML) was used to extract factors. Maximum Likelihood “aims to find the parameter values that make the observed data most likely (or conversely maximise the likelihood of the parameters given the data” (Brown, 2006, p.75).

Exploratory Factor Analysis (EFA) is a highly used statistical method in the creation, assessment and improvement of scales in the Social Sciences field and even more so in Psychology (Floyd & Widaman, 1995). As several anomalies were found in the psychometric study of the scale (as was confirmed by Gagné, 2018), it was important to consider regrouping the items differently. For a new structure to be developed, the EFA was needed in order to identify the underlying relationships between the measured variables (Norris & Lecavalier, 2009).

The implementation of the EFA confirmed the feasibility of dividing the data matrix into factors. The assessment was carried out using two methods; the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. According to Pasquali (1999) both tests revealed statistically favourable values (Table 34). KMO was found to be 0.767 and the Bartlett test (with levels of significance $p > 0.05$ resulted in a value of 721.8 ($p=0.000$). These results demonstrate that the items can be separated into factors.

Table 34

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of the 19 proposed items for a Revised OGE

Determinant of the matrix = 0.000834779746694

Bartlett's statistic = **721.8** (df = 171; P = 0.000010)

Kaiser-Meyer-Olkin (KMO) test = **0.76724** (fair)

In order to determine what factors need to be retained, two methods were used: the Hull method as well as the Kaiser-Guttman criteria more known as eigenvalue > 1 (Patil et al., 2008). Despite the latter suggesting the existence of seven factors, goodness of fit statistics (0.975) and degrees of freedom of each of the models shed light on the possibility of a more favourable solution, one which supported using only four factors (Table 35).

Table 35

Statistics and Goodness of Fit of the Revised OGE

Root Mean Square Error of Approximation (RMSEA)
= 0.074; (between 0.050 and 0.080: fair)

Comparative Fit Index (CFI) = 0.947; (between 0.920
and 0.950: fair)

Goodness of Fit Index (GFI) = **0.975**

This solution was reinforced by the data shown on Table 36 where the explained proportion of variance significantly reduced from the fourth to the fifth factor. Hence, four factors were retained which explain 56.53% of the total variance. The first factor explains 26% of the variance, the second factor 14%, the third factor explains 9.8% and the fourth explains 6.7%.

Table 36

Variance based on eigenvalues – Total Variance Explained for the Revised OGE

Variable	Eigenvalue	Proportion of variance	Cumulative Proportion of variance
1	6.50069	0.26091	0.26091
2	3.48126	0.13972	0.40063
3	2.44755	0.09823	0.49886
4	1.65700	0.06650	0.56536
5	1.53761	0.06171	
6	1.35131	0.05423	
7	1.22140	0.04902	
8	0.89586	0.03596	
9	0.84197	0.03379	
10	0.75037	0.03012	
11	0.72713	0.02918	
12	0.66319	0.02662	
13	0.58395	0.02344	
14	0.51934	0.02084	
15	0.45525	0.01827	
16	0.39213	0.01574	
17	0.37329	0.01498	
18	0.32797	0.01316	
19	0.18860	0.00757	

(loadings lower than absolute 0.300 omitted)

The implementation of the Factorial Analysis in its initial matrix did not facilitate the interpretation of the extracted factors; there was more than one situation where the contribution of the variables on the factor was unclear. In order to give more loading to the factors, a rotation of axes was carried out. This had the objective of simplifying factor extraction. After reviewing the literature, an oblique rotation method referred to as Promax was selected. Other researchers (Tirri, Tallent-Runnels, Adames, Yuen, & Patrick, 2002) have also opted for a similar data analysis to discern the main factors in Gagné and Nadeau's (1991) attitude scale. This method allows the new axes to take any position in the factor space and allows for gains in simplicity in interpretation (Hair et al. 2006).

Loading values were found to be weak in Question 24 (0.324) to very strong in Question 31 (0.977) (Table 37). Both Question 15 and Question 24 had inferior loadings to 0.5. but were maintained in order to maintain the original structure of the scale.

Table 37

Rotated Loading Matrix – Promax for the Revised OGE

	F1	F2	F3	F4
Q24	0.324			
Q15	0.411			
Q16	0.579			
Q9	0.660			
Q14	0.818			
Q6		0.599		
Q20		0.611		
Q2		0.747		
Q21		0.748		
Q12			0.627	
Q30			0.641	
Q26			0.646	
Q28			0.666	
Q27			0.669	
Q3			0.681	
Q5			0.798	
Q19				0.743
Q22				0.921
Q31				0.977

Based on the factorial analysis, correlations among the variables and the review of the literature as well as taking into consideration the original conceptualisation of the OGE, below is a statistically more robust and revised structure for Secondary teachers of English in Portugal.

Needs and support (Table 38): This subscale consists of five items and measures teachers' beliefs in the needs of gifted students and their support for adequate specialised services for this sub-population of children. High scores indicate positive attitudes towards the gifted.

Table 38

Needs and support

Q9 Gifted children are often bored in school.
Q14 The specific educational needs of the gifted are too often ignored in our schools.
Q15 The gifted need special attention in order to fully develop their potential
Q16 (rec) Our schools are already adequate in meeting the needs of the gifted.
Q24 In order to progress, a society must develop the talents of gifted individuals to a maximum.

Resistance to objections (Table 39): This subscale, entailing 7 items, focussed on the measurement of teachers' objections based on their ideologies. Positive attitudes denoted favourable attitudes towards the gifted and their education.

Table 39

Resistance to objections

Q3(rec) Children with difficulties have the most need of special educational services.
Q5(rec) Special educational services for the gifted are a mark of privilege.
Q12(rec) We have a greater moral responsibility to give special help to children with difficulties than to gifted children.
Q26(rec) Taxpayers should not to pay for special education for the minority of children who are gifted.
Q27(rec) Average children are the major resource of our society; so, they should be the focus of our attention.
Q28(rec) Gifted children might become vain or egoistical if they are given special attention.
Q30 Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.

Rejection (Table 40): Attitudes towards the isolation of gifted persons by others in the immediate environment were measured using the following three questions. High scores indicated positive attitudes towards the gifted population.

Table 40

Rejection

Q19 A child who has been identified as gifted has more difficulty in making friends.
Q22 Some teachers feel their authority threatened by gifted children.
Q31 Often children are rejected because people are envious of them.

Ability Grouping (Table 41): This subscale measures respondents' attitudes towards special homogenous groups or schools with the below four items. Positive attitudes denoted positive attitudes towards homogenous grouping for the gifted.

Table 41

Ability grouping

Q2 The best way to meet the needs of the gifted is to put them in special classes.
Q6(rec) When the gifted are put in special classes, the other children feel devalued.
Q20 (rec) Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children.
Q21 (rec) By separating students into gifted and their groups, we increase the labelling of children as strong-weak, good-less good, etc.

The Needs and Support construct consisted of five items ($\alpha = 0.682$), and Resistance to Objections consisted of seven items ($\alpha = 0.713$). Cronbach's Alphas for the three items in the Rejection construct and the four items in the Ability Grouping were observed to have an internal consistency of 0.742 and 0.630 respectively.

III. 2.2. Reliability of the Revised Classroom Practices Questionnaire

Instrument

Similarly to the analysis carried out on "Opinions about the gifted and their education", analysis of the Revised CPQ demonstrated that particular items were highly skewed and so were removed and not included at all in the analysis of the reliability of the constructs below. The internal consistency of the Adapted CPQ was ascertained

using Cronbach's model (1996); coefficient values above 0.60 were deemed as satisfactory values.

III. 2.2.1. Questioning and thinking

As can be seen in Tables 42 and 43 below, in the Questioning and Thinking construct the suppression of Question 15 would result in an even stronger internal consistency ($\alpha = 0.919$ to $\alpha = 0.947$).

Table 42

Item-Total Statistics of the "Questioning and Thinking" construct

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
q15	15.75	22.593	.604	.509	.947
q23	14.81	21.933	.916	.886	.879
q24	14.64	21.837	.874	.888	.885
q25	14.78	21.949	.822	.687	.895
q26	14.58	22.707	.806	.805	.899

Hence, the internal consistency of the Questioning and Thinking factor in the Revised CPQ was as high as 0.947 (Table 43) making it strongly reliable.

Table 43

Internal consistency of the "Questioning and Thinking" construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.947	.949	4

The means ($M=3.83$ to 4.06) and standard deviations (1.231 to 1.334) also revealed close values, revealing a sturdy consistency amongst the remaining items (Tables 44 and Figure 15).

Table 44

Item Statistics for the “Questioning and Thinking” construct

	Mean	Std. Deviation	N
q23	3.83	1.231	36
q24	4.00	1.287	36
q26	4.06	1.264	36
q25	3.86	1.334	36

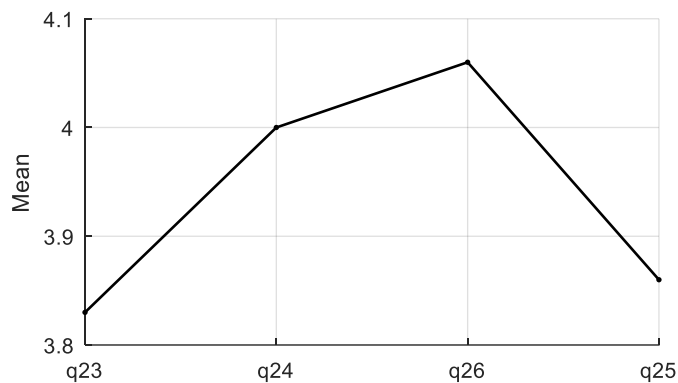


Figure 15. Means of the “Questioning and Thinking” construct

The above results determined the need to remove Question 15 “Teach thinking skills in the regular curriculum” from the questionnaire. Subsequently, a Spearman’s rho analysis (Table 45) determined strong interdependent values ranging from 0.769 e 0.890 and an all round correlation between all items. The highest correlation was found to be between Questions 23 “Provide questions that encourage reasoning and logical thinking,” and 24 “Ask open-ended questions” ($\rho = 0.890$) and the lowest between Questions 23 and 26 “Encourage student participation in discussions” ($\rho = 0.769$) despite a strong significant correlation between most questions. Moreover, this construct (with its four items) was observed to have a strong internal consistency.

Table 45

Item-to-Item Correlations in the “Questioning and Thinking” construct

	q23	q24	q25	q26
q23	1.000			
q24	.890**	1.000		
q25	.796**	.772**	1.000	
q26	.769**	.868**	.778**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

III. 2.2.2. Providing challenge and choice

In the construct measuring how frequently teachers provide challenge and choice, the four items revealed an internal consistency of 0.805 (Table 46).

Table 46

Internal consistency of the “Providing Challenge and Choice” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.805	.805	4

Questions in this construct included the following: “Allow students within your classroom to work from a higher grade level textbook” (Question 17); “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic” (Question 18); Group students across classrooms at the same grade level” (Question 19) and “ Establish interest groups which enable students to pursue individual or small group interests” (Question 21). Means varied from 2.14 to 2.83 (Table 47 and Figure 16).

Table 47

Item Statistics for the “Providing Challenge and Choice” construct

	Mean	Std. Deviation	N
q17	2.14	1.458	35
q18	2.63	1.374	35
q19	2.83	1.505	35
q21	2.49	1.222	35

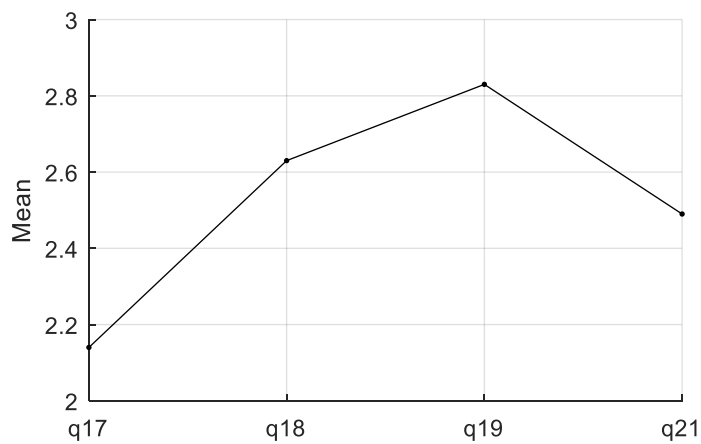


Figure 16. Means of the “Providing Challenge and Choice” construct

An item-total statistical analysis revealed that no other elimination would result in a higher coefficient value. Correlations between items ranged from 0.439 to 0.643 (Table 48). The strongest correlation was found to be between Questions 18 “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic” and Question 17 “Allow students within your classroom to work from a higher grade level textbook” and the lowest to be between Questions 21 “Establish interest groups which enable students to pursue individual or small group interests” and Question 17. All items significantly correlated between each other.

Table 48

Item-to-Item correlations in the “Providing Challenge and Choice” construct

	q17	q18	q19	q21
q17	1.000			
q18	.643**	1.000		
q19	.443**	.516**	1.000	
q21	.439**	.460**	.530**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

III. 2.2.3. Reading and writing assignments

Similarly to the previous construct, the four-item construct titled Reading and Writing Assignments demonstrated a relatively strong internal consistency ($\rho = 0,821$). See Table 49.

Table 49

Internal consistency of the “Reading and Writing” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.821	.814	4

Questions in this construct included the following: Question 1 “Assign reading of more advanced level work; Question 2 “Assign projects or other work requiring extended time for students to complete; Question 3 “Assign book reports” and Question 5 “Give creative or expository writing assignments on topics selected by the teacher”. The means ranged from 2.03 to 2.74 (Table 50 and Figure 17). Although a slightly higher internal consistency could be attained with the removal of a further item, an option was made to maintain all four of the items in this construct.

Table 50

Item Statistics for the “Reading and Writing Assignments” construct

	Mean	Std. Deviation	N
q1	2.74	1.336	35
q2	2.60	1.333	35
q3	2.03	.985	35
q5	2.43	1.119	35

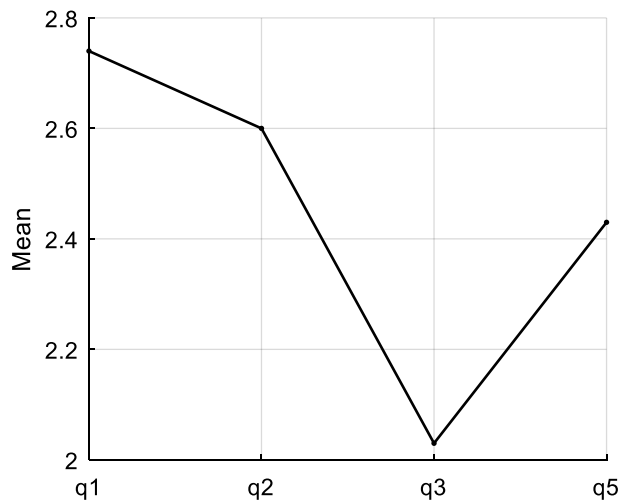


Figure 17. Means of the “Reading and Writing Assignments” construct

III. 2.2.4. Curriculum modifications

Modifications to the curriculum were measured with its five items and Cronbach’s Alpha was found to be 0.763. See Table 51.

Table 51

Internal consistency of the “Curriculum Modifications” construct

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.763	.766	5

Questions in this construct included Question 8 “Use pre-tests to determine what students know before a new topic is given”; Question 9 “Eliminate curricular that

students have mastered”; Question 11 “Substitute different assignments for students who have mastered regular classroom work”; Question 12 “Modify the instructional format for students who learn better using an alternative approach” and Question 14 “Assign different homework based on different ability.” Means and standard deviations of the data collected were also found to be relatively constant (Table 52 and Figure 18). As no modifications were deemed to increase the consistency of the construct, all of the items were maintained in the scale.

Table 52

Item Statistics for the “Curriculum and Modifications ”construct

	Mean	Std. Deviation	N
q8	2.46	1.358	35
q9	2.09	1.245	35
q11	2.69	1.157	35
q12	2.77	1.437	35
q14	2.54	1.245	35

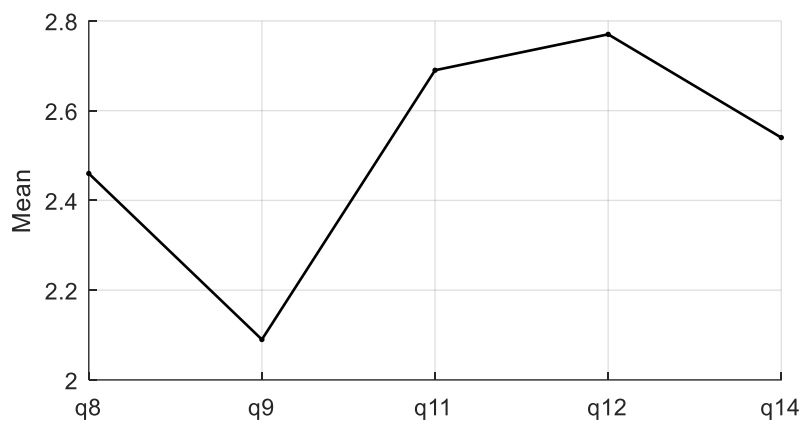


Figure 18. Means of the “Curriculum Modifications” construct

Correlations between the items ranged from 0.202 to 0.712 (Table 53). The weakest correlations were found to be between Questions 14 “Assign different homework based on student ability” and 8 “Use pre-tests to determine what students know before a new topic is given” (0.202); and the strongest and most significant (0.712) between Question 12 “Modify the instructional format for students who learn

better using an alternative approach” and Question 11 “Substitute different assignments for students who have mastered regular classroom work.”

Table 53

Item-to-Item Correlations in the “Curriculum Modification” construct

Spearman's rho					
	q8	q9	q11	q12	q14
q8	1.000				
q9	.336*	1.000			
q11	.443**	.511**	1.000		
q12	.580**	.360*	.712**	1.000	
q14	.202	.535**	.480**	.379*	1.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Both the last two constructs of this scale, Enrichment Centres and Seatwork comprised of 1 and 2 items respectively. This meant that these two constructs could not be analysed in the same way as the prior constructs and were therefore removed.

III. 2.2.5. Principal Component Analysis of the Revised CPQ

The Factorial Analysis was carried out using Principal Component Analysis due to the fact that Maximum Likelihood bases itself on the Assumption of Normality. The values shown in Table 54 suggest the Factorial Analysis can be carried out ($KMO = 0.771$ and Bartlett's sphericity test demonstrated a value of $pvalue < 0.001$). Both the values indicate that the variables correlate statistically.

Table 54

KMO and Bartlett's Test for the Revised CPQ

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.771
Bartlett's Test of Sphericity	Approx. Chi-Square	336.938
	df	91
	Sig.	.000

According to the rule of eigenvalues greater than one, only three Principal Components could be retained. Nonetheless, as the Factorial Analysis intends on

confirming the CPQ questionnaire, an option was made to maintain the four principal components that explain approximately 79% of the Total Variance (Figure 19).

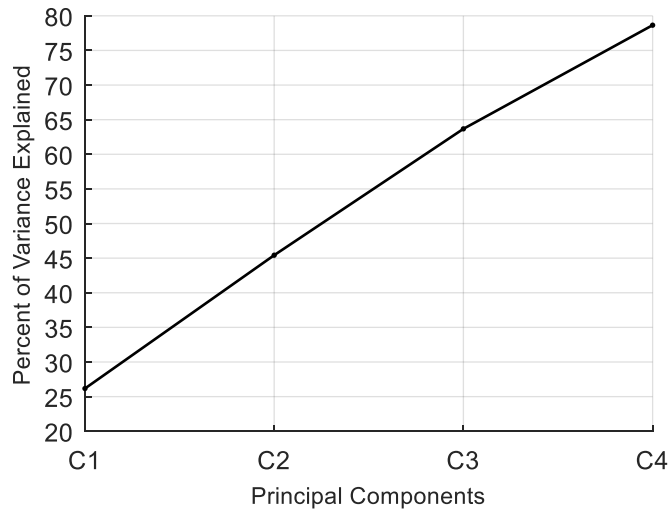


Figure 19. Explained Variance for the Revised CPQ

The Total Variance as suggested by the original structure of the Adapted CPQ but based on the new significantly acceptable factorial analysis was distributed in the following manner: The Principal Component “Questioning and Thinking” that comprises of Questions 23, 24, 25 and 26 explains the largest percentage variance (26.172%); the one that follows is the “Reading and Writing Assignments” component which includes Questions 1, 2 and 5 (19.253%); approximately 18% of the variance can be explained by the component “Providing Challenge and Choice” which comprises of Questions 17, 18 and 19; lastly, questions 8, 11 and 12 that constitute “Curriculum Modification”, explains 15% of the total variance (Table 55). The high level of explained variance, the reliability coefficients as well as the item correlations enabled the new structure proposed.

Table 55

Total Variance Explained for the Revised CPQ

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.410	45.783	45.783	6.410	45.783	45.783	3.664	26.172	26.172
2	2.323	16.596	62.379	2.323	16.596	62.379	2.695	19.253	45.426
3	1.288	9.202	71.581	1.288	9.202	71.581	2.555	18.248	63.674
4	.989	7.062	78.644	.989	7.062	78.644	2.096	14.970	78.644
5	.700	4.999	83.643						
6	.476	3.401	87.043						
7	.474	3.385	90.428						
8	.372	2.657	93.085						
9	.286	2.045	95.130						
10	.232	1.659	96.789						
11	.192	1.368	98.157						
12	.109	.777	98.934						
13	.103	.737	99.671						
14	.046	.329	100.000						

Extraction Method: Principal Component Analysis.

In the Rotated Matrix Component shown below (Table 56), variables that have higher loadings than 0.5 mean that they are statistically significant within the extracted components they are part of.

Table 56

Rotated Component Matrix^a for the Revised CPQ

	Component			
	1	2	3	4
q24	.948			
q26	.929			
q23	.921			
q25	.789			
q5		.819		
q2		.754		
q1		.727		
q18			.854	
q17			.741	
q19			.637	
q12				.821
q11				.721
q8				.692

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.

a. Rotation converged in 12 iterations.

Using the correlational data amongst the variables, the internal consistencies of the constructs as well as taking into account the survey as conceived by Archambault et al., 1993, a structure which is applicable to Secondary teachers of English in Portugal is presented below (Table 57):

Table 57

A Revised CPQ for secondary teachers of English in Portugal

Questioning and Thinking
23 Provide questions that encourage reasoning and logical thinking.
24 Ask open-ended questions.
25 Encourage students to ask higher-level questions.
26 Encourage student participation in class.
Providing Challenge and Choice
17 Allow students within your classroom to work from a higher grade level textbook.
18 Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic.
19 Group students by ability across classrooms at the same grade level.
Reading and Writing Assignments
1 Assign reading of more advanced level work.
2 Assign projects or other work requiring extended time for students to complete.
5 Give creative or expository writing assignments on topics selected by the teacher.
Curriculum Modifications
8 Use pre-tests to determine what students know before a new topic is given.
11 Substitute different assignments for students who have mastered regular classroom work.
12 Modify the instructional format for students who learn better using an alternative approach.

III. 3. Description of the Sample

The sample consisted of 110 secondary teachers of English as a foreign language. Only a mere 35 of the 110 reported either having students in their classroom who had been identified by an external or school psychologist or had students they believed were gifted. Ages of the teachers ranged between 20 to above 60 although the majority within this sample (48.2%) were aged between 40 and 49. The second largest age group was the one with teachers aged between 50 and 59 (26.4%).

During the time of the data collection, 77 participants (70%) worked in public schools, 15 participants (13.6%) in private Portuguese schools and 18 (16.4%) teachers had contracts with international schools (Table 58). Seventy-three out of the 110 teachers (66.4%) had over 20 years of experience. Six teachers (6%) had less than 10 years experience. Taking into account that 70% of the teachers worked in public schools, it made sense that the majority (74.5%) would have between two and four

hours of English as this is the average weekly numbers of hours allocated to English at a public school. The following, comprising of 18 teachers (16.4%) reported having more than 10 weekly hours of English per group.

Table 58

Information on current school, years of teaching experience and weekly numbers of hours of English within the sample of Teachers of English as a Foreign Language

Variable	Options	Frequency	%
Current School	Public	77	70.0
	Private Portuguese	15	13.6
	International	18	16.4
	TOTAL	110	100
Years of Teaching Experience	1-5	3	2.7
	6-10	3	2.7
	11-15	17	15.5
	16-20	14	12.7
	>20	73	66.4
	TOTAL	110	100
No. of weekly teaching hours of English	2-4	84	74.5
	5-7	7	6.4
	8-10	3	2.7
	>10	18	16.4
	TOTAL	110	100

The results of the descriptive analysis for highest qualification earned, revealed four categories of respondents. As shown in Table 59, 65 (59.1%) of the secondary teachers of English have a Bachelor's degree, followed by 32 having a Master's degree (32%). The highest qualification degree amongst the teachers was a PhD held by four participants (3.6%). It was not surprising to find that most teachers (91.8%) had not had any gifted related training during the course of their higher education. Similarly, 99 teachers (90%) teachers reported not having had the opportunity of taking part in any in-service courses related to giftedness.

Table 59

Information on qualification and training in gifted education within the sample of teachers of English as a Foreign Language

Variable	Options	Frequency	%
Highest degree earned	Undergraduate Degree	65	59.1
	Postgraduate degree	9	8.2
	Masters	32	29.1
	PhD	4	3.6
		110	100
Did your university course include training in gifted education?	No	101	91.8
	Yes	9	8.2
		110	100
Have you taken any in-service courses in gifted education?	No	99	90
	Yes	11	10
		110	100

After the demographic details, teachers were asked to indicate how confident they felt about teaching gifted children. Sixty-six teachers (60%) reported feeling somewhat confident (Table 60). Only seven (6.4%) teachers reported feeling confident in teaching gifted children. Table 60 also demonstrates frequencies and percentages of those teachers that perceive themselves as gifted. The data indicated that the majority did not (87 teachers; 79.1%) whilst six (5.5%) perceived themselves as gifted. Additionally, teachers were asked to report whether they had any gifted family members. Although most answered not having any family members who are gifted (68 teachers; 61.8%), 24 teachers (21.8%) said they did.

Table 60

Information on levels of confidence, self-perception as gifted and gifted family members

Variable	Options	Frequency	%
How confident do you feel about teaching gifted children?	Very confident	7	6.4
	Somewhat confident	66	60.0
	Not confident	37	33.6
		110	100
Do you consider yourself gifted?	Yes	6	5.5
	No	87	79.1
	Maybe	17	15.5
		110	100
Do you have any family members who you believe are gifted students in your current classroom(s)?	Yes	24	21.8
	No	68	61.8
	Maybe	18	16.4
		110	100

III. 4. Research Question One

What opinions/attitudes do secondary teachers of English (as a Foreign Language) hold concerning gifted learners and their education?

Secondary teachers expressed their attitudes towards gifted education and giftedness by completing Gagné and Nadeau's Attitude Scale, Opinions About the Gifted and Their Education (Gagné, 1991). Teachers expressed the extent to their agreement of the statements by circling a Likert scale which had options that ranged from 1 (totally disagree) to 5 (totally agree). Mean scores were used in order to interpret the scale (see Appendix C). As per Gagné's instructions (Gagné, 1991), some statements that were negatively worded in the scale needed to be reverse coded. After this reversal, higher scores on all constructs translated into positive attitudes and low scores into negative attitudes. More specifically, the following parameters as suggested by Gagné and Nadeau (1991) were used; attitudes were considered very negative when they ranged between 0.00 to 1.99, negative when they fell between 2.00 to 2.74 and were categorised as ambivalent attitudes when means ranged from 2.75 to 3.24. Attitudes were interpreted as positive between means of 3.25 to four and classified as very positive between means of four to five.

Subsequent to the psychometric analysis carried out on the attitude scale to verify its reliability on the target population for this study, only four out of six of the

constructs were found to be reliable. The first construct, Needs and Support aims to look at respondents' beliefs about the needs and support for special services of the gifted. The second construct, Resistance to Objections, is where participants' objections based on ideologies and other priorities are measured. The third construct, Rejection, measures attitudes related to the isolation of gifted persons by others in the immediate environment. The fourth construct, Ability Grouping, refers to attitudes towards special homogenous groups, classes and schools.

Of the 110 teachers that completed the OGE, the highest total mean score (for all constructs) was $M=4.16$ and the lowest mean score $M=1.17$. As can be seen in the pie chart below (Figure 20), approximately 63% of the sample of teachers harboured positive to very positive attitudes, 29% seemed to show attitudes of ambivalence towards gifted students and their education and 8% hold negative attitudes. The mean scores for each subject on the OGE scale can be seen in Appendix C.

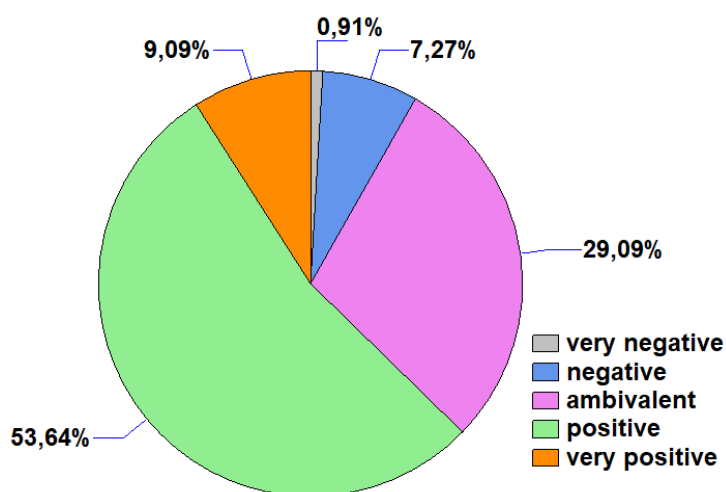


Figure 20. Percentages of Total Mean Scores for the OGE.

When the data was analysed in terms of the individual constructs, secondary teachers of English in Portugal reported very positive attitudes in the construct measuring Needs and Support ($M=4.182$). The means can be seen in Table 61. Hence, teachers demonstrated an understanding of different educational needs of the gifted and

the role of the school in its provision. Similarly on a positive note, teachers' ideologies seemed not to interfere with the provision of services for the gifted. This was seen in Resistance to Objections as mean attitudes ($M=3.59$) indicated positive attitudes. Furthermore, for both Rejection and Ability Grouping, data analysis revealed that secondary teachers of English in Portugal harbour less positive attitudes than in the aforementioned constructs ($M=2.88$ and 2.83 respectively). The dimension of Rejection, which aims to measure the perception of the isolation of gifted individuals in society showed that teachers are ambivalent ($M=2.88$). Similarly, secondary teachers of English in Portugal demonstrated ambivalent attitudes in what concerns homogenous grouping as measured in the Ability Grouping construct. Information about the means for each respondent for each construct can be found in Appendix D.

Table 61

Means and attitudes per construct

Construct	Mean	Attitude
Needs and Support	4.182	Very positive
Resistance to Objections	3.59	Positive
Rejection	2.88	Ambivalent
Ability Grouping	2.83	Ambivalent

The following pie charts can help to understand the distribution of attitudes from very positive to very negative amongst the different constructs. Positive to very positive attitudes were demonstrated by approximately 94% of the respondents in the Needs and Support construct (Figure 21). Approximately 6% of the secondary teachers in the sample demonstrated ambivalent attitudes. In the pie chart measuring Resistance to Objections where teachers demonstrated harbouring positive attitudes, there was a slight shift towards more negative attitudes in comparison to attitudes towards gifted students' needs and supports (Figure 22). Only 48% of the 110 teachers approximately (in comparison to 94% in the Needs and Supports construct) harboured positive to very positive attitudes. Almost 27% harboured ambivalent attitudes and approximately a quarter of the sample seemed to harbour negative to very negative attitudes; ideologies of a quarter of the sample may interfere towards adequate provision for the gifted population.

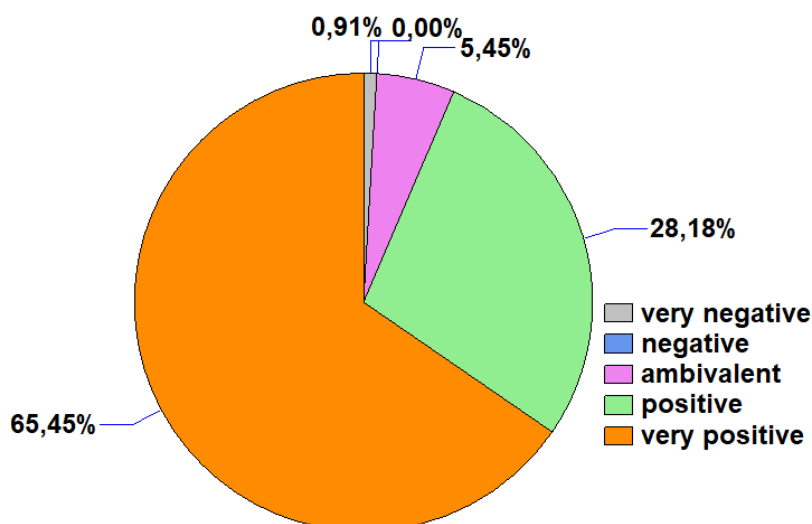


Figure 21. Percentage distribution of attitudes in “Needs and Support”

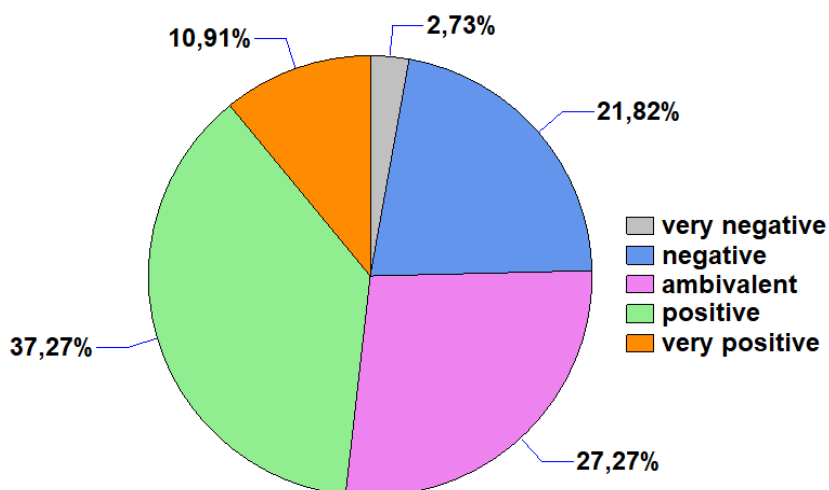


Figure 22. Percentage distribution of attitudes in Resistance to Objections

Although 40% of the sample harboured positive to very positive attitudes towards the gifted in the construct measuring Rejection, a much higher proportion of the sample (49%) was found to show negative to very negative attitudes (Figure 23). Almost 12% showed ambivalent attitudes. There is a downward tendency in terms of positive attitudes as demonstrated across Needs and Support, Resistance to Objections and Rejection towards the gifted. Even further negative attitudes seem to be shown by secondary teachers of English in Portugal in the construct measuring Ability Grouping where a total of approximately 35% seem to favour ability grouping for the gifted, whilst 36% seem to harbour negative to very negative attitudes (Figure 24). An additional 29% of the teachers demonstrated ambivalence.

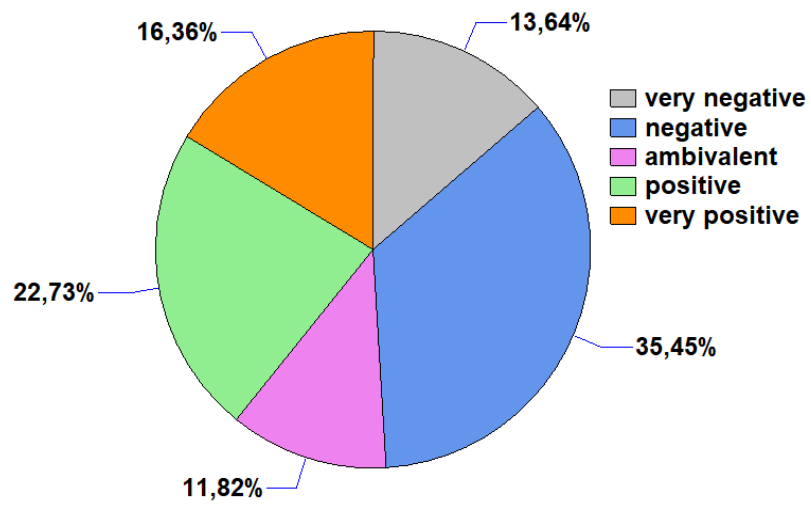


Figure 23. Percentage distribution of attitudes in “Rejection”

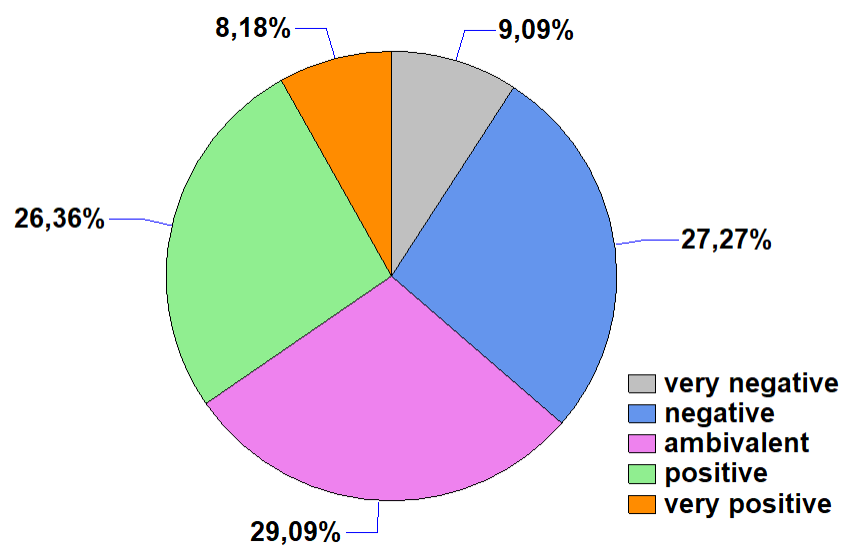


Figure 24. Percentage distribution of attitudes in “Ability Grouping”

The means for the individual items in the Needs and Support ranged from positive to very positive ($M=3.75$ to 4.48) (see Table 62).

Table 62

Means for Individual Items on the OGE

	Mean	St. D	Attitude
Needs and Support			
Q9 Gifted children are often bored in school.	4.07	1.064	V.Positive
Q14 The specific educational needs of the gifted are too often ignored in our schools.	4.48	0.854	V.Positive
Q15 The gifted need special attention in order to fully develop their potential	4.35	0.785	V.Positive
Q16 (rec) Our schools are already adequate in meeting the needs of the gifted.	4.26	0.895	V.Positive
Q24 In order to progress, a society must develop the talents of gifted individuals to a maximum.	3.75	0.962	Positive
Resistance to Objections			
Q3(rec) Children with difficulties have the most need of special educational services.	2.69	1.353	Negative
Q5(rec) Special educational services for the gifted are a mark of privilege.	3.90	1.188	Positive
Q12(rec) We have a greater moral responsibility to give special help to children with difficulties than to gifted children.	3.49	1.332	Positive
Q26(rec) Taxpayers should not to pay for special education for the minority of children who are gifted.	3.97	1.215	Positive
Q27(rec) Average children are the major resource of our society; so. they should be the focus of our attention.	3.45	1.106	Positive
Q28(rec) Gifted children might become vain or egoistical if they are given special attention.	3.66	0.989	Positive
Q30 Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.	3.96	1.040	Positive
Rejection			
Q19 A child who has been identified as gifted has more difficulty in making friends.	2.87	1.126	Ambivalent
Q22 Some teachers feel their authority threatened by gifted children.	2.83	1.305	Ambivalent
Q31 Often children are rejected because people are envious of them.	2.95	1.107	Ambivalent
Ability Grouping			
Q2 The best way to meet the needs of the gifted is to put them in special classes.	2.69	1.194	Negative
Q6(rec) When the gifted are put in special classes, the other children feel devalued.	3.39	1.279	Positive
Q20 (rec) Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children.	2.84	0.944	Ambivalent
Q21 (rec) By separating students into gifted and their groups, we increase the labelling of children as strong-weak, good-less good, etc.	2.41	1.078	Negative

In Resistance to Objections, teachers demonstrated positive attitudes in most of the questions, ranging from $M=3.45$ to 3.97 (Table 62). Nonetheless, when asked to express the extent of their agreement with the following statement, “Children with difficulties have the most need of special educational needs”, teachers demonstrated negative attitudes ($M=2.69$) (Table 62). The disparity amongst the means between Question 3 and the remaining questions can be seen in Figure 25.

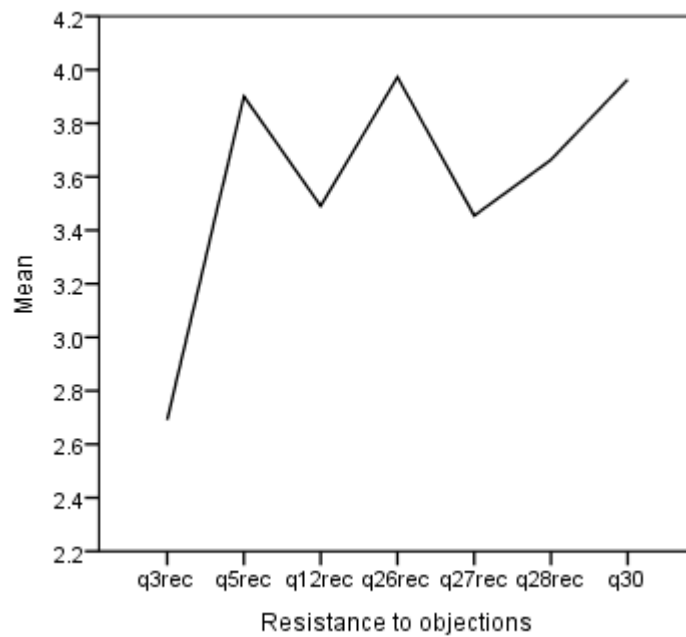


Figure 25. Means of Items in the “Resistance to Objections” construct

Secondary teachers of English in Portugal demonstrated ambivalence in attitudes for the construct measuring Rejection with means for all items ranging from $M=2.83$ to 2.87 (Table 62).

Although in general teachers demonstrated ambivalent attitudes towards ability grouping, there was some disparity evident in the responses amongst the four questions (Figure 26). For Question 6 for example, “When the gifted are put in special classes, the other children feel devalued”, teachers demonstrated positive attitudes ($M=3.39$). However, when answering Question 20 “Gifted children should be left in regular

classes, since they serve as an intellectual stimulant for the other children”, teachers demonstrated ambivalence ($M=2.84$). Of greater concern is when teachers demonstrated negative attitudes towards Questions 2 ($M=2.69$) and 21 ($M=2.41$): “The best way to meet the needs of the gifted is to put them in special classes” and “By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good etc”. These reported negative attitudes may hinder gifted friendly practices for the gifted as ability grouping is one of the recommended grouping techniques as it provides appropriate challenge for the gifted (Tomlinson et al., 2003).

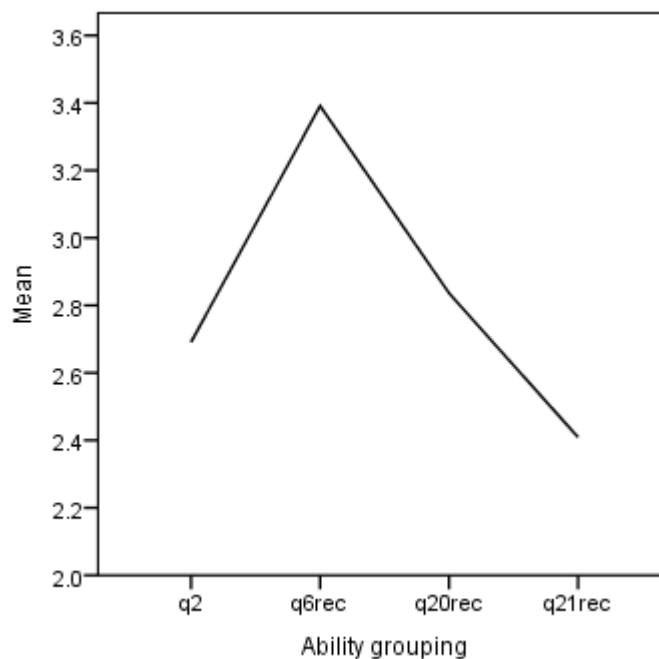


Figure 26. Means of Items in the “Ability Grouping” construct

III. 4.1. Attitudes towards the Gifted and Gifted Education and Variables

Further analyses aimed to understand whether variables such as gender, age, years of teaching experience, gifted education courses, in-service training, confidence in teaching the gifted, self-perception as gifted and having a gifted relative influence secondary teachers’ attitudes towards giftedness.

When looking into analysing the influence of gender on attitudes, the number of disproportionate number of male and female respondents was found to be a problem (Table 63). There is existing statistical evidence that the distribution of respondents in the sample under study is not representative of the population ($\chi^2_{(1)} = 90.909$; $pvalue = 0.000$) and hence generalisations cannot be made. However when a comparison of the medians was carried out, it was found that the median for the male population was higher ($Mdn = 25$) than the female population ($Mdn = 21$).

Having only a small sample of male respondents as well as verifying the presence of outliers, the Mann-Whitney non-parametric test was applied. The results, as can be seen in Table 64, demonstrated a significant difference in attitudes in the Needs and Support construct ($Mann - Whitney U = 126.5$; $Z = -1.964$; $pvalue = 0.049$). In other words, male teachers tended to show more positive attitudes in the construct, which aimed to measure the understanding of gifted students' different educational needs and the role of the school in its provision.

Table 63

Ranks of the "Needs and support" construct - Gender

Gender	N	Mean Rank	Sum of Ranks
Female	105	54.20	5691.50
Male	5	82.70	413.50
Total	110		

Table 64

Mann-Whitney U Test of C "Needs and Support" construct – Gender

	Needs and support
Mann-Whitney U	126.500
Wilcoxon W	5691.500
Z	-1.964
Asymp. Sig. (2-tailed).	.049
a. Grouping Variable: Gender	

The distribution of age in this sample, like gender, was not representative of the population ($\chi^2_{(2)} = 15.836$; $pvalue = 0.000$). Despite the implementation of Kruskal

Wallis test not resulting in any significant statistical differences in attitudes amongst the different age groups, mean ranks demonstrated that teachers aged 50-65 harboured more favourable attitudes towards the gifted in three out of the four constructs i.e., in Needs and Support, Resistance to Objections and Rejection (Table 65).

Table 65

Kruskal Wallis Test – Age in the “Needs and Support” construct

	Age cat	N	Mean Rank
Needs and support	[20.35]	19	55.39
	[35.50]	53	54.84
	[50.65]	38	56.47
	Total	110	
Resistance to objections	[20.35]	19	48.39
	[35.50]	53	56.21
	[50.65]	38	58.07
	Total	110	
Ability grouping	[20.35]	19	43.03
	[35.50]	53	58.62
	[50.65]	38	57.38
	Total	110	
Rejection	[20.35]	19	59.00
	[35.50]	53	50.14
	[50.65]	38	61.22
	Total	110	

In order to understand whether the type of school teachers were working in had an influence on their attitudes towards giftedness, the non parametric Kruskal Wallis test was carried out. Statistical differences were found for one particular construct: results showed that teachers who worked in public schools had more favourable attitudes towards homogenous grouping as measured by Ability Grouping (*Kruskal – Wallis* $H_{(2)} = 10.330$; $pvalue = 0.006$). This can be seen in the table below (Table 66).

Table 66

Kruskal Wallis Test Statistics^{a,b} for Type of School

	Needs and support	Resistance to objections	Ability grouping	Rejection
Chi-Square	.288	5.003	10.330	.763
df	2	2	2	2
Asymp. Sig.	.866	.082	.006	.683
a. Kruskal Wallis Test				
b. Grouping Variable: Current School				

The varied teaching experience observed amongst the categories is not representative of the teaching population. Hence, there was a need to re-categorise the variable into less than 20 years of teaching experience and more than 20 years of experience. This was considered appropriate given that 40 years is the average lifetime for a teaching professional.

In the Needs and Support category, the mean points representing more positive attitudes [19,22[and [22,25], show us that 83% of the less experienced teachers (versus 71% of their more experienced counterparts) responded either four or five in the Likert Scale (Table 67). However, the application of Kendall's tau on the data demonstrated that the differences were weak, negative and not significant.

Table 67

Crosstab - Years Teaching Experience for the "Needs and support" construct

	Years Teaching Experience					
	[0,20]		>20		Total	
	Count	% within years	Count	% within years	Count	% within years
[7,10[	0	0.0%	1	1.4%	1	0.9%
[13,16[	1	2.7%	2	2.7%	3	2.7%
[16,19[	5	13.5%	18	24.7%	23	20.9%
[19,22[	11	29.7%	18	24.7%	29	26.4%
[22,25]	20	54.1%	34	46.6%	54	49.1%
Total	37	100.0%	73	100.0%	110	100.0%

Yet, it can be understood from the data that there may be a tendency for Portuguese teachers of English with less teaching experience to have more positive attitudes in what concerns the Needs and Supports of gifted learners (Figure 27). According to the sample studied, teachers' attitudes towards Ability Grouping, Resistance to Objections and Rejection seem to be unaffected by years of teaching experience.

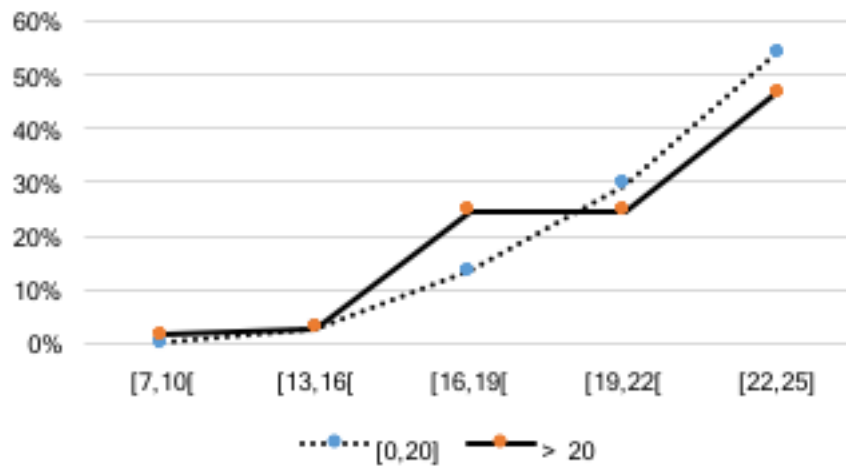


Figure 27. Years of Teaching Experience for the Needs and Support Construct

Analyses revealed that attitudes were not influenced by teachers' level of qualification nor did self-perception as gifted have an impact on their attitudes towards the gifted and their education. Having a relative who is gifted did not seem to influence attitudes either. When analysing if training related to gifted education during university courses influenced teachers' attitudes, although no statistical differences were found it can be said that the group that had not had university courses in gifted education seemed to harbour more positive attitudes towards Ability Grouping.

Similarly, a Mann-Whitney U test ($Mann - Whitney U = 329.5$; $Z = -2.155$; $pvalue = 0.031$) showed that teachers who had not had any in-service training were found to have more statistically significant positive attitudes towards homogeneous grouping than teachers who had endorsed this kind of training (Table 68). Further research analysing this surprising correlation may yield further insight as to why more in-service training correlated with less positive attitudes in items related to Ability Grouping.

Table 68

Mann-Whitney Test Statistics^a for In-Service Training in Gifted Education

	Needs and support	Resistance to objections	Ability grouping	Rejection
Mann-Whitney U	515.500	390.500	329.500	534.500
Wilcoxon W	581.500	456.500	395.500	5484.500
Z	-.291	-1.538	-2.155	-.100
Asymp. Sig. (2-tailed)	.771	.124	.031	.920
a. Grouping Variable: taken any in service courses in gifted education				

III. 5. Research Question Two

How do secondary teachers of English perceive the way they differentiate instructional practice to accommodate their gifted learners?

Teachers reported how frequently they used specific instructional practices with their gifted and non-gifted/average students. By comparing these frequencies, a clearer picture of the nature of classroom instruction would emerge. Teachers self-reported practices using a 5-point Likert scale ranging from “never” (1) to “once a week” (5). A summary of the means and standard deviations for each item can be seen below (Table 69). Furthermore, the disparity between the teacher’s self-reported practices when teaching the gifted and the non-gifted/average students was obtained. A mean difference, calculated by subtracting the mean non-gifted/average score from the mean gifted score was included. Hence, a positive score denotes more frequent usage of that particular instructional practice with gifted learners in comparison to other students.

Table 69

Means of items and mean differences for gifted and non-gifted/average students

	N	Mean ^a	Std. Deviation ^a	Mean ^b	Std. Deviation ^b	Mean Diff.
q1	35	2.74	1.336	2.26	1.291	0.48
q2	35	2.60	1.333	2.80	1.256	-0.2
q3	35	2.03	.985	2.03	1.043	0
q4	35	2.80	1.431	3.06	1.187	-0.26
q5	35	2.43	1.119	2.69	1.183	-0.26
q6	35	2.23	1.165	2.34	1.083	-0.11
q7	35	2.74	1.442	2.23	1.060	0.51
q8	35	2.46	1.358	2.49	1.269	-0.03
q9	35	2.09	1.245	2.20	1.346	-0.11
q10	35	3.46	1.482	4.09	1.292	-0.63
q11	35	2.69	1.157	2.54	1.197	0.15
q12	35	2.77	1.437	3.37	1.457	-0.6
q13	35	2.66	1.305	2.97	1.465	-0.31
q14	35	2.54	1.245	2.54	1.291	0
q16	35	2.23	1.308	2.17	1.098	0.06
q17	35	2.14	1.458	2.17	1.445	-0.03
q18	35	2.63	1.374	2.00	1.057	0.63
q19	35	2.83	1.505	2.46	1.421	0.37
q20	35	1.29	.710	1.34	.906	-0.05
q21	35	2.49	1.222	2.46	1.291	0.03
q22	35	3.09	1.422	3.00	1.372	0.09
q23	35	3.86	1.240	3.54	1.245	0.32
q24	35	4.03	1.294	3.77	1.352	0.26
q25	35	3.86	1.353	3.71	1.341	0.15
q26	35	4.09	1.269	3.86	1.309	0.23
N	35					

students a = gifted

students b = nongifted

The means obtained in each of the 25 items demonstrated an overall similarity. Means obtained amongst the teachers' group that reported to have gifted students in their classrooms ranged from ($M=1.29$) in Question 20 "Send students to higher grade levels" to ($M=4.09$) in Question 26 "Encourage student participation in discussions" indicating the average mean to be lower than three ($M=2.75$). This value indicates that on average teachers engaged in these instructional practices with gifted learners less than once a month. The amplitude or range of means in the non-gifted/average students was slightly smaller; the lowest means was again found in Question 20 "Send students to a higher grade level" ($M=1.34$) and the highest in Question 10 "Repeat instruction on the coverage of more difficult concepts for some students" ($M=4.09$). In other words, the average means was only slightly lower ($M=2.72$) indicating that teachers' practices

did not differ much independently of the ability of the children. This overall similarity in frequencies with both groups can be visualised in Figure 28.

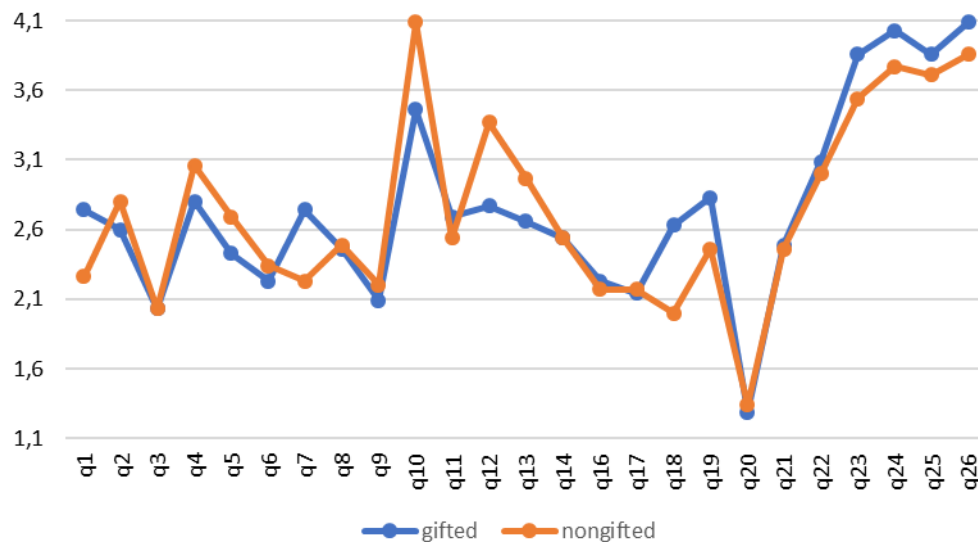


Figure 28. Means of the frequency of all practices (except Question 15) for Gifted and Non-Gifted/Average Students

Slight differences in practice means were found in Questions 10, 12 and 18 (see Table 69 and Figure 29). In Questions 10 and 12 the difference in means was found to be negative; teachers “Repeat instruction on the coverage of more difficult concepts” and “Modify the instructional format for students who learn better using an alternative approach” more frequently with non-gifted/average learners than their gifted counterparts. These practices were used slightly less frequently with the higher ability students. However, teachers were found to “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic” more often with gifted than non-gifted learners. However, a Mann-Whitney test demonstrated that the similarities identified did not result in statistically significant differences amongst the individual practices used by teachers when teaching gifted and non-gifted/average students.

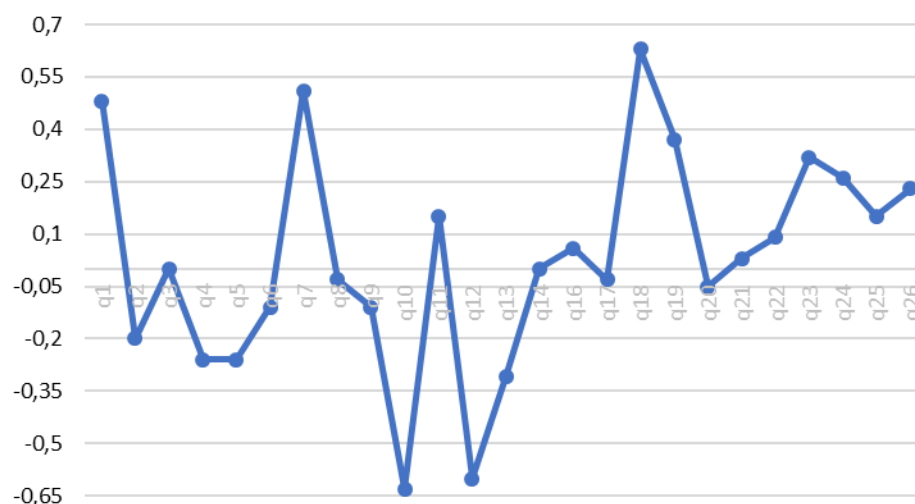


Figure 29. Mean differences amongst practices for Gifted and Non-gifted/Average students

The mean and standard deviation analysis for the four different components can be seen in Table 70. These included means of strategies that are related to (1) Questioning and Thinking; (2) Reading and Writing Assignments; (3) Providing Challenge and Choice, and (4) Curriculum Modifications. Teachers reported more frequent usage (approximately once a month) of “Questioning and Thinking” strategies with both their gifted and non-gifted/average students ($M=3.96$ and 3.71 respectively) and least frequency (approximately once a term, $M=2.53$ and 2.20) of practices pertaining to “Providing Challenge and Choice”

When focussing further on the differences amongst the components (Table 70), teachers seemed to report slightly more frequent engagement in strategies related to Curriculum Modifications with non-gifted/average learners than their gifted counterparts as the mean difference is negative (-0.162). This component includes instructional practices such as using “Pre-tests to determine if students know a topic before a new topic is given” and “Assign different homework based on student ability”. However the biggest difference in means (0.324) was found to be in the Providing Challenge and Choice component. Hence, teachers reported providing slightly more opportunities for gifted learners in the component where items such as “Work with higher level textbooks”, “Group students by ability across classrooms” and “Consider

students' opinions in allocating time for various topics with the higher ability students" were included.

Table 70

Statistics^{a,b} for the Gifted and Non-Gifted/Average students

	Mean ^a	Std. Deviation ^a	Mean ^b	Std. Deviation ^b	Mean Diff.
Questioning and thinking	3.957	1.199	3.721	1.170	0.236
Reading and Writing Assignments	2.590	1.105	2.581	1.026	0.009
Providing challenge choice	2.533	1.210	2.209	1.041	0.324
Curriculum Modification	2.638	1.094	2.800	1.020	-0.162

a. students = gifted; b. students = non-gifted

The graph below (Figure 30) shows the means of the different practices teachers carried out with gifted and non-gifted students. The dissimilarities found in the means across the four components were analysed using a *t* test but no statistically significant differences were found. The similarities in means across the items and the four components as well as the statistically non-significant *p*-values signify that classroom practices do not differ when Portuguese teachers of English teach students that are gifted or non-gifted. According to this sample, little or no differentiation that caters for the gifted is taking place in English classrooms in Portuguese schools.

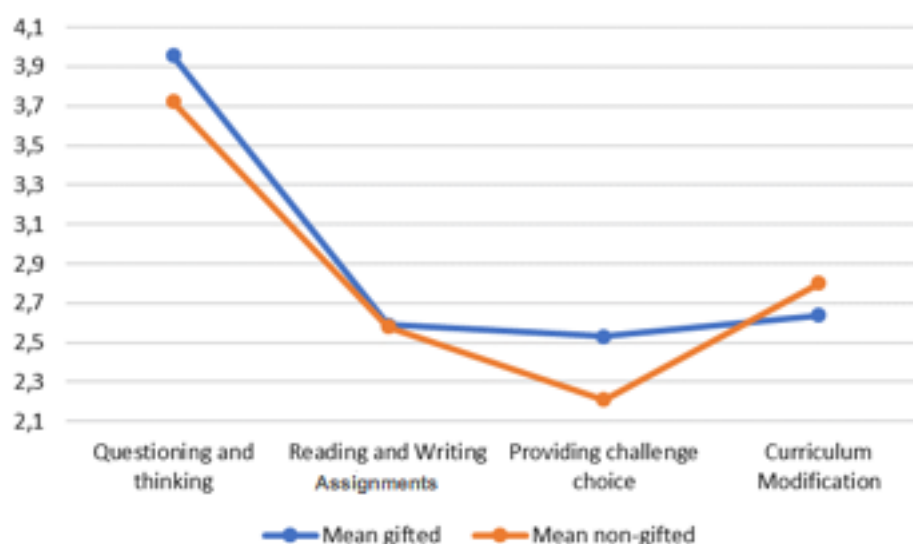


Figure 30. Means of practices of both Gifted and Non-Gifted/Average Students across the four components

III. 5.1. A further look into classroom practices used with gifted learners

It was considered relevant for the study to understand which of the 25 instructional practices were being used in Portuguese mainstream educational classrooms, more specifically in an English as a Foreign Language classroom. The means of the practices of the 35 teachers who reported to have one or more gifted children in their classroom can be seen in Table 71.

Table 71

Statistics for Practices carried out with Gifted Children

	Mean	Median	Std. Deviation	Min.	Max.
1. Assign reading	2.74	3.00	1.336	1	5
2. Assign projects	2.60	3.00	1.333	1	5
3. Assign book reports	2.03	2.00	.985	1	4
4. Use activities such as puzzles or word searches	2.80	3.00	1.431	1	5
5. Give creative or expository writing assignments on topics selected by the teacher	2.43	2.00	1.119	1	5
6. Give creative or expository writing assignments on topics selected by the students	2.23	2.00	1.165	1	5
7. Make time available for students' self selected interests	2.74	3.00	1.442	1	5
8. Use pre-tests to determine if students know before a new topic is given	2.46	2.00	1.358	1	5
9. Eliminate curricular material that students have mastered	2.09	2.00	1.245	1	5
10. Repeat instruction on the coverage of more difficult concepts	3.46	4.00	1.482	1	5
11. Substitute different assignments for students who have mastered regular classwork	2.69	3.00	1.157	1	5
12. Modify the instructional format for students who learn better using an alternative approach	2.77	3.00	1.437	1	5
13. Encourage students to move around the classroom to work in various locations	2.66	2.00	1.305	1	5
14. Assign different homework based on student ability	2.54	2.00	1.245	1	5
15. Teach thinking skills in the regular curriculum	2.91	3.00	1.579	1	5
16. Provide time within the school day for students to work on their independent study projects	2.23	2.00	1.308	1	5
17. Allow students within your classroom to work from a higher grade level textbook	2.14	1.00	1.458	1	5
18. Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic	2.63	3.00	1.374	1	5
19. Group students by ability across classroom at the same grade level	2.83	3.00	1.505	1	5
20. Send students to a higher grade level	1.29	1.00	.710	1	4
21. Establish interest groups which enable students to pursue individual or small group interests	2.49	2.00	1.222	1	5
22. Consider students opinion in allocating time for various topics	3.09	3.00	1.422	1	5
23. Provide questions that encourage reasoning and logical thinking	3.86	4.00	1.240	1	5
24. Ask open ended questions	4.03	5.00	1.294	1	5
25. Encourage students to ask higher level questions	3.86	4.00	1.353	1	5
26. Encourage student participation in discussions	4.09	5.00	1.269	1	5

Although means of practices ranged from 1.29 (representing very rarely) to 4.09 (twice a month) it is worthwhile noting that most of these gifted-friendly strategies were carried out between once a term to once a month. As can be seen in the graph below (Figure 31) one practice, represented by Question 20 was almost never carried out whilst the most frequent practices (Question 24 and 26) were carried out no more than twice a month.

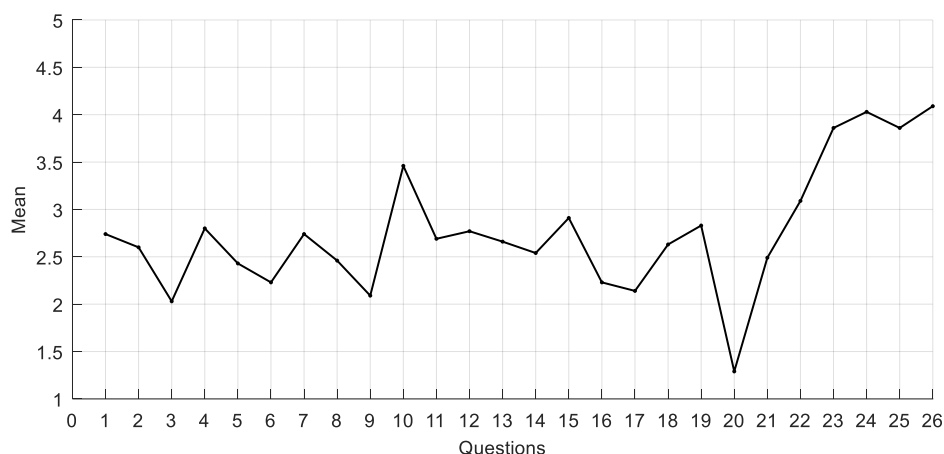


Figure 31. Means of Practices carried out with Gifted Children

Secondary teachers of English reported that their gifted learners were almost never sent to a higher grade level ($M=1.29$). Gifted learners seldom had the opportunity to write book reports ($M=2.03$), carry out creative or expository writing assignments ($M=2.43$ and 2.23), use pre-tests to determine if they had already mastered the material to be taught ($M=2.46$), given time within the school for students to work on projects ($M=2.23$) and work from a higher level textbook ($M=2.14$). These opportunities were given more often than once a term. Teachers catered for the gifted a little more frequently (a little less than once a month) by engaging students in reading assignments as well as projects ($M=2.60$ and 2.03), using word searches or puzzles ($M=2.80$) and allowing them to pursue self-selected interests ($M=2.74$). Activities such as substituting material students have mastered ($M=2.69$), modifying the learning format, encouraging the students to move around within the classroom ($M=2.66$), differentiating homework for the gifted ($M=2.54$) and providing a richer experience by working on a more advanced unit ($M=2.63$) were also carried out less than once a month. Establishing ability groupings and interest groups were also pursued likewise. Teachers in this

sample tended to repeat coverage of more difficult concepts ($M=3.46$) as well as consider students' opinions when allocating time for various topics ($M=3.09$) more than once a month. The most frequent practices were providing questions that encourage reasoning ($M=3.86$) and higher level thinking ($M=3.86$) which were carried out a little less than twice a month. More popular strategies revolved around answering open-ended questions ($M=4.03$) and encouraging participation in discussions ($M=4.09$) about twice a month.

The instructional practices were then analysed to see if any of the demographic factors had an influence on the frequency of their usage.

III. 5.2. Classroom practices with the gifted and variables

Similarly to the analyses carried out on the OGE, further analyses aimed to understand whether variables such as gender, age, years of teaching experience, gifted education courses, in-service training, confidence in teaching the gifted, self-perception as gifted and having a gifted relative influence secondary teachers' practices in differentiating for the gifted.

In order for the data to be analysed successfully, the ages of the respondents was divided into three groups: 30-40, 40-50 and 50-60. Although statistical differences were not found between items and age, Question 8, "Use pre-tests to determine if students know the topic before it is given," yielded a significance level of 0.051, revealing a larger discrepancy amongst the three different age groups. More specifically, although this cannot be generalised, teachers aged between 30 and 40 tended to use pre-tests more frequently than their older aged peers to understand whether students knew the topic before it was taught. This can be seen in Figure 32 where the mean ($M=3.333$) is higher for the 30-40 age group.

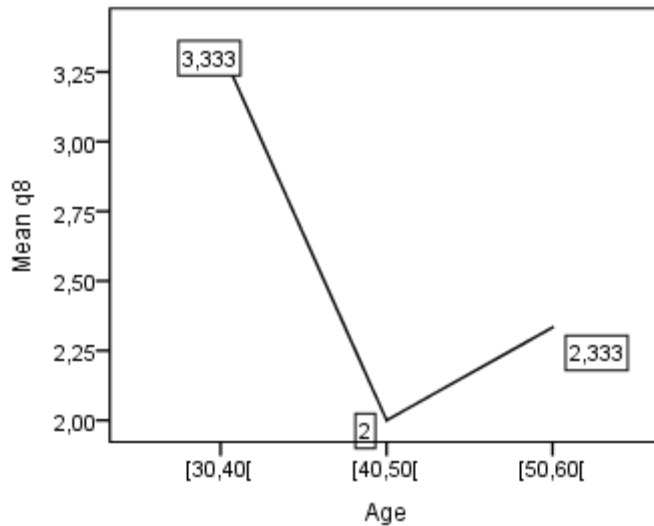


Figure 32. Means for Question 8 “Use pre-tests to determine if students know the topic before it is given” amongst different age groups

The analysis in terms of factors did not yield statistically significant data. However, the component with the most dissimilar mean was “Curriculum Modification.” It was the 30-40 age group again that stood out with a higher mean ($M = 9,33$) (Table 72).

Table 72

Age and Statistics of the four components

	N	Mean	Std. Deviation	Std. Error
Reading and Writing Assignments	[30.40[9	7.44	2.651	.884
	[40.50[14	7.21	3.965	1.060
	[50.60[12	8.67	2.995	.865
Total	35	7.77	3.317	.561
Providing Challenge and Choice	[30.40[9	7.89	3.100	1.033
	[40.50[14	7.14	4.204	1.123
	[50.60[12	7.92	3.528	1.018
Total	35	7.60	3.632	.614
Curriculum Modification	[30.40[9	9.33	3.240	1.080
	[40.50[14	7.43	3.715	.993
	[50.60[12	7.42	2.678	.773
Total	35	7.91	3.284	.555
Questioning and Thinking	[30.40[9	16.56	4.613	1.538
	[40.50[14	15.79	5.508	1.472
	[50.60[12	15.33	4.376	1.263
Total	35	15.83	4.799	.811

Teachers either worked in private Portuguese schools, international schools or public schools. Four out of the 26 practices yielded statistical differences ranging from 0.04 to 0.36 (see Table 73). In other words, the type of school teachers worked in seemed to have an influence on the following practices: Question 2 “Assign projects or other work requiring extended time for students to complete”; Question 19 “Group students by ability across classrooms at the same grade level”; Question 25. “Encourage students to ask higher-level questions,” and Question 26 where teachers answered how frequently they “Encourage student participation in discussions”.

Table 73

Kruskal Wallis Test for Type of School

	Chi-Square	df	Asymp. Sig.
q1	3.683	2	.159
q2	10.829	2	.004
q3	2.546	2	.280
q4	2.265	2	.322
q5	4.843	2	.089
q6	2.244	2	.326
q7	.779	2	.678
q8	.239	2	.887
q9	5.412	2	.067
q10	4.318	2	.115
q11	3.786	2	.151
q12	.765	2	.682
q13	3.131	2	.209
q14	2.825	2	.244
q15	3.211	2	.201
q16	4.427	2	.109
q17	1.045	2	.593
q18	4.708	2	.095
q19	6.625	2	.036
q20	.969	2	.616
q21	4.617	2	.099
q22	1.142	2	.565
q23	2.854	2	.240
q24	4.958	2	.084
q25	7.334	2	.026
q26	7.164	2	.028

a. Kruskal Wallis Test

b. Grouping Variable: Current School

Focussing further on Question 2 “Assign projects or other work requiring extended time for students to complete” a significantly higher mean ($M = 4$) was observed in international schools (Table 74).

Table 74

Statistics for Question 2 “Assign projects or other work requiring extended time for students to complete” and Type of School

	N	Mean	Std. Deviation	Std. Error
Public	18	2.28	1.127	.266
Private Portuguese	9	2.00	1.225	.408
Private/English	8	4.00	.926	.327
International				
Total	35	2.60	1.333	.225

Using Scheffe, which is a robust and conservative statistical analysis used for multiple comparisons, it was found that teachers working in the international private sector tended to “Assign projects or other work requiring extended time for students to complete,” more frequently than teachers working in either private Portuguese schools or public schools (Table 75).

Table 75

Scheffe Multiple Comparisons Dependent Variable related to Question 2

(I) Current School	(J) Current School	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public	Private Portuguese	2.194444	3.467532	.820	-6.70643	11.09532
	Private/English	-12.312500*	3.609122	.007	-21.57682	-3.04818
	International					
Private Portuguese	Public	-2.194444	3.467532	.820	-11.09532	6.70643
	Private/English	-14.506944*	4.127189	.005	-25.10110	-3.91278
	International					
Private/English	Public	12.312500*	3.609122	.007	3.04818	21.57682
	Private Portuguese	14.506944*	4.127189	.005	3.91278	25.10110

*. The mean difference is significant at the 0.05 level.

The school teachers taught in also seemed to influence how often teachers “Group students by ability across classrooms at the same grade level” (Question 19) although this difference was only statistically significant between international schools and private Portuguese schools (Appendix E; Table E1). Teachers tended to “Encourage students to ask higher-level questions” (Question 25) and “Encourage student participation in discussions” (Question 26) more often in international schools ($M = 4.88$ and 5.00). The means can be seen in Figure 33 below.

This difference was statistically significant when making a comparison between international schools and public schools (Appendix E; Tables 1 to 3).

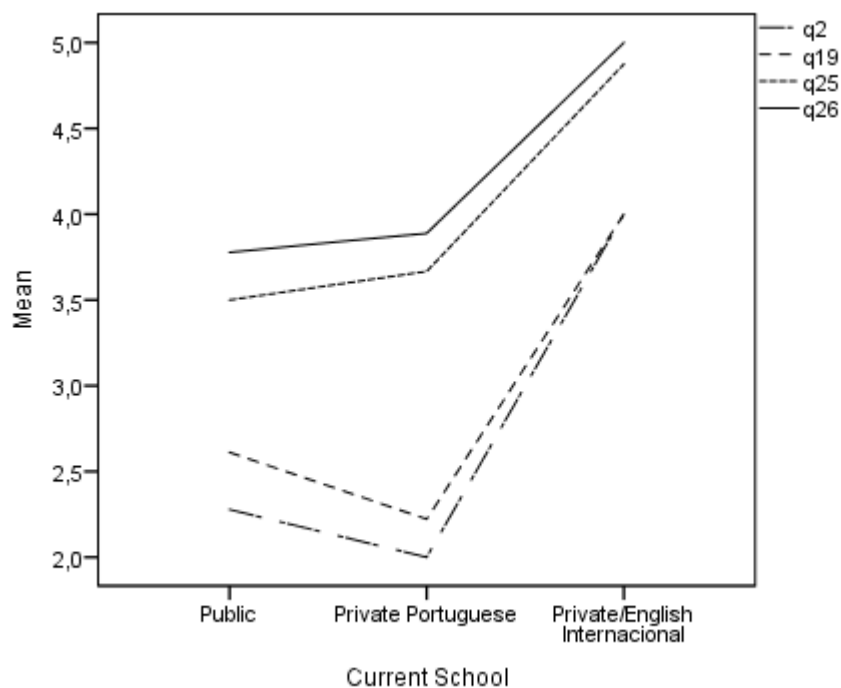


Figure 33. Means for Items and Type of School

The practices as part of the four components were also analysed. Table 76 demonstrates higher means amongst teachers from the international private sector in all four components.

Table 76

Statistics for Type of School across the four components

		N	Mean	Std. Deviation	Std. Error
Reading and Writing Assignments	Public	18	7.56	3.053	.720
	Private Portuguese	9	5.89	2.848	.949
	Private/English International	8	10.38	3.021	1.068
	Total	35	7.77	3.317	.561
Providing Challenge and Choice	Public	18	7.06	3.369	.794
	Private Portuguese	9	6.33	3.742	1.247
	Private/English International	8	10.25	3.105	1.098
	Total	35	7.60	3.632	.614
Curriculum Modification	Public	18	7.78	3.116	.735
	Private Portuguese	9	7.33	4.243	1.414
	Private/English International	8	8.88	2.588	.915
	Total	35	7.91	3.284	.555
Questioning and Thinking	Public	18	14.61	4.865	1.147
	Private Portuguese	9	15.22	5.563	1.854
	Private/English International	8	19.25	1.165	.412
	Total	35	15.83	4.799	.811

The higher means can be confirmed visually in Figure 34.

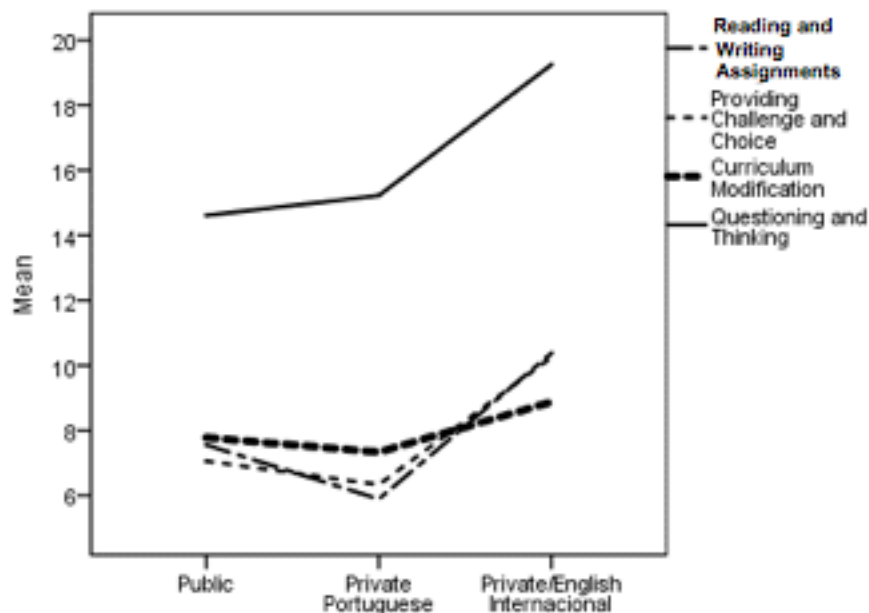


Figure 34. Means for Type of School across the four components

The associated p -value in the Kruskal Wallis test was found to be significant in three out of the four components (Table 77); it was only in practices within the component of Curriculum Modification where schools teachers taught in seemed to have no bearing. Practices considered gifted-friendly strategies within Reading and Writing Assignments, Providing Challenge and Choice and Questioning and Thinking were more frequent in international schools than in other schools. Larger samples are required for any conclusions to be reached.

Table 77

Kruskal Wallis Test Statistics^{a,b} for Type of School across the four components

	Reading and Writing Assignments	Providing Challenge and Choice	Curriculum Modification	Questioning and Thinking
Chi-Square	7.297	5.979	1.320	6.141
df	2	2	2	2
Asymp. Sig.	.026	.049	.517	.046

a. Kruskal Wallis Test

b. Grouping Variable: Current School

For statistical analysis to take place, years of experience in teaching had to be divided into less and more than 20 years of experience. Although most gifted-friendly practices did not seem to be influenced by these variables (Table 78), Question 20, “Send students to a higher grade level” yielded a statistically significant value (p 0.022). At a closer look at the crosstab for Question 20 (see Appendix E, Table 4), it can be seen that 82.9% never sent students to a higher grade level; within these, 95.2% with more than 20 years of experience were likely to never engage in this behaviour. In other words according to the current sample, teachers with more than 20 years of experience were less likely to send students to a higher grade level than their less experienced peers.

Table 78

Mann-Whitney U Test for Years of Teaching Experience

	Mann-Whitney		Asymp.	Sig.
	U	Wilcoxon W Z	(2-tailed)	
q1	144.500	249.500	-.086	.931
q2	129.500	234.500	-.605	.545
q3	137.500	368.500	-.336	.737
q4	146.500	251.500	-.017	.986
q5	102.000	207.000	-1.570	.116
q6	129.000	234.000	-.632	.528
q7	107.000	338.000	-1.378	.168
q8	113.000	344.000	-1.183	.237
q9	121.000	226.000	-.925	.355
q10	145.000	250.000	-.070	.944
q11	131.500	236.500	-.541	.589
q12	142.500	373.500	-.155	.877
q13	118.500	349.500	-.986	.324
q14	119.500	224.500	-.952	.341
q15	126.000	357.000	-.726	.468
q16	107.000	338.000	-1.410	.159
q17	138.500	369.500	-.314	.754
q18	136.000	367.000	-.384	.701
q19	118.000	223.000	-1.001	.317
q20	102.500	333.500	-2.283	.022
q21	145.000	250.000	-.069	.945
q22	135.000	366.000	-.414	.679
q23	140.500	245.500	-.231	.818
q24	136.500	241.500	-.387	.698
q25	137.500	368.500	-.339	.735
q26	134.000	365.000	-.487	.626

Number of weekly hours seemed to have an influence on six gifted-friendly practices as reported by the teachers that had one or more gifted student in the classroom. The statistical data in Table 79 denote statistically significant values. Figure 35 also depicts the tendency for certain practices as reflected in Questions 2,3,5,9,18 and 19 (p values ranging from 0.03 to 0.38) to be more likely to be carried out when teachers had more than four hours of English with the students.

In reference to Question 2 “Assign projects or other work requiring extended time for students to complete,” a larger percentage of teachers answered “Never” (28.6%); all of these Secondary teachers of English had less than four hours of English a week (Appendix E; Table E5). Similarly, in Question 3 where teachers were asked to

report how often they “Give creative or expository writing assignments on topics selected by the teacher” 68.5% reported to either never engage in this practice or to apply it once a term. Again, the majority of responses within this set were given by teachers teaching fewer than four hours of English. Approximately 43% of the teachers replied that they never “Eliminate curricular material that students have mastered” and 31% reported never to “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic”. When teachers reported their practices regarding Question 19, “Group students by ability across classrooms at the same grade level,” a similar pattern was found (approximately 29%). All six gifted-friendly practices referred to above were more frequently used by teachers with more than four hours of English a week (Appendix E; Tables E6 to E10).

Table 79

Mann-Whitney U Test for weekly number of hours of English

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
q1	89.500	414.500	-1.329	.184
q2	52.500	377.500	-2.718	.007
q3	71.000	396.000	-2.072	.038
q4	90.500	415.500	-1.290	.197
q5	58.500	383.500	-2.516	.012
q6	76.000	401.000	-1.865	.062
q7	85.500	410.500	-1.475	.140
q8	88.500	413.500	-1.377	.168
q9	47.000	372.000	-3.008	.003
q10	117.000	172.000	-.302	.762
q11	82.500	407.500	-1.609	.108
q12	94.000	419.000	-1.159	.247
q13	90.500	415.500	-1.294	.196
q14	84.000	409.000	-1.539	.124
q15	81.000	406.000	-1.650	.099
q16	86.500	411.500	-1.471	.141
q17	91.500	416.500	-1.340	.180
q18	68.500	393.500	-2.136	.033
q19	66.500	391.500	-2.190	.029
q20	107.000	432.000	-1.002	.317
q21	79.500	404.500	-1.711	.087
q22	102.500	427.500	-.842	.400
q23	82.000	407.000	-1.654	.098
q24	91.500	416.500	-1.341	.180
q25	76.000	401.000	-1.897	.058
q26	101.500	426.500	-.955	.340

a. Grouping Variable: N° of weekly teaching hours of English per class

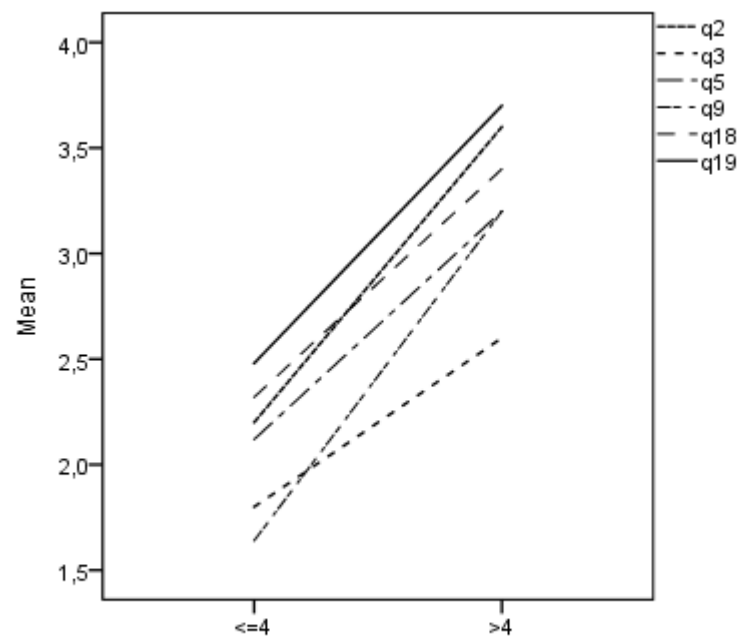


Figure 35. Means of items and weekly number of hours of English

Educational qualifications were divided into undergraduate levels and postgraduate levels of qualification. This did not seem to have an influence on most practices except when teachers reported how frequently in Question 8 (p 0.007) “Use pre-tests to determine if students know before a new topic is given” (Table 80). A further look at the crosstab (Appendix E; Table E11) shows that the most frequent answer was that teachers never engaged in this practice. Amongst the teachers that never used this practice, 60% were teachers with a postgraduate level of study.

Table 80

Mann-Whitney U Test for Level of Qualification

	Test Statistics ^a			Asymp. Sig. (2-tailed)
	Mann-Whitney U	Wilcoxon W	Z	
q1	97.000	217.000	-1.811	.070
q2	121.500	241.500	-.975	.329
q3	127.000	247.000	-.806	.421
q4	123.500	243.500	-.904	.366
q5	97.500	217.500	-1.813	.070
q6	146.000	356.000	-.139	.889
q7	136.500	346.500	-.460	.645
q8	72.000	192.000	-2.687	.007
q9	142.000	352.000	-.282	.778
q10	149.000	269.000	-.035	.972
q11	139.000	259.000	-.380	.704
q12	116.000	236.000	-1.160	.246
q13	138.000	348.000	-.411	.681
q14	136.000	256.000	-.480	.631
q15	148.000	358.000	-.068	.945
q16	147.500	357.500	-.087	.931
q17	123.000	243.000	-.986	.324
q18	146.000	266.000	-.138	.890
q19	132.000	342.000	-.615	.539
q20	143.500	263.500	-.330	.741
q21	143.500	353.500	-.223	.823
q22	144.000	354.000	-.205	.838
q23	131.000	341.000	-.667	.505
q24	124.000	334.000	-.950	.342
q25	139.000	259.000	-.389	.697
q26	119.000	329.000	-1.150	.250

a. Grouping Variable: Highest Degree earned

The teachers that had training in gifted education as part of their university course seemed to yield higher means and lower standard deviations than those that had had none (see Table 81).

Table 81

Means of Yes and No groups: Did you have training in gifted education during your university course?

Questions	Statistics			
	“No”		“Yes”	
	Mean	Std. Deviation	Mean	Std. Deviation
q1	2.57	1.331	3.80	.837
q2	2.40	1.303	3.80	.837
q3	1.87	.900	3.00	1.000
q4	2.67	1.470	3.60	.894
q5	2.27	1.081	3.40	.894
q6	2.07	1.112	3.20	1.095
q7	2.50	1.383	4.20	.837
q8	2.27	1.337	3.60	.894
q9	1.90	1.185	3.20	1.095
q10	3.43	1.478	3.60	1.673
q11	2.50	1.137	3.80	.447
q12	2.57	1.431	4.00	.707
q13	2.53	1.332	3.40	.894
q14	2.40	1.276	3.40	.548
q15	2.70	1.579	4.20	.837
q16	2.07	1.230	3.20	1.483
q17	1.90	1.398	3.60	.894
q18	2.43	1.382	3.80	.447
q19	2.77	1.501	3.20	1.643
q20	1.10	.403	2.40	1.140
q21	2.33	1.213	3.40	.894
q22	2.97	1.497	3.80	.447
q23	3.77	1.305	4.40	.548
q24	3.97	1.377	4.40	.548
q25	3.73	1.413	4.60	.548
q26	4.00	1.339	4.60	.548

Statistical differences shown by a level of significance lower than 0.05 were found in 15 of 26 gifted friendly practices in the CPQ (Table 82). This indicated that teachers who reported to have had gifted education training/workshops within their university course engaged in specific gifted practices more often than when teachers did not have this kind of training.

Table 82

Mann-Whitney U Test for “Did your university course include training in gifted education?”

	Mann-Whitney U	Wilcoxon W	Z	Asymp.Sig. (2-tailed)
q1	33.000	498.000	-2.030	.042
q2	30.000	495.000	-2.178	.029
q3	30.500	495.500	-2.204	.028
q4	45.500	510.500	-1.424	.154
q5	31.500	496.500	-2.125	.034
q6	32.000	497.000	-2.113	.035
q7	25.000	490.000	-2.411	.016
q8	32.500	497.500	-2.071	.038
q9	27.000	492.000	-2.390	.017
q10	70.000	535.000	-.244	.807
q11	22.500	487.500	-2.565	.010
q12	32.500	497.500	-2.051	.040
q13	44.500	509.500	-1.477	.140
q14	37.500	502.500	-1.817	.069
q15	35.000	500.000	-1.937	.053
q16	41.500	506.500	-1.653	.098
q17	25.500	490.500	-2.557	.011
q18	28.000	493.000	-2.294	.022
q19	62.500	527.500	-.604	.546
q20	19.500	484.500	-3.987	.000
q21	35.500	500.500	-1.917	.055
q22	51.000	516.000	-1.160	.246
q23	58.000	523.000	-.844	.399
q24	72.500	537.500	-.129	.897
q25	51.500	516.500	-1.175	.240
q26	62.500	527.500	-.656	.512

Crosstabs (Appendix E; Tables 12 to 26) indicate that 40% of the teachers who had had training/workshop in gifted education during their further education reported that the following practice “Assign reading of more advanced level work” was carried out at least twice a month whilst only 10% reported doing so when they hadn’t endorsed this kind of training. Often the differences were evident in the percentage of teachers that replied never providing certain activities; this was the case in Question 2 “Assign projects or other work requiring extended time for students to complete”; Question 7 “Make time for students to pursue self-selected interests”; Question 9 “Eliminate curricular material that students have mastered”; Question 14 “Assign different homework based on student ability”; Question 17 “Allow students within your classroom to work from a higher grade level textbook” and Question 20 “Send students to a higher grade level”.

Whilst asked how frequently secondary teachers of English in this sub-sample “Assign book reports” 40% of the teachers without any training answered never and 43% replied carrying this activity out twice a month. Question 5 asked teachers to report how frequently they “Give creative or expository writing assignments on topics selected by the teacher”; 60% of the teachers within this group answered once a month while a much lower percentage, 10% of the teachers without any training did. A similar pattern followed in Question 6 which focussed on a similar question but topics selected by the students. The use of “... pre-tests to determine what students know before a new topic is given,” was popular amongst those with training (80%) who carried this out at least twice a month while only 10% of the teachers without training did with the same frequency. More than three quarters of the teachers with training “Substitute different assignments for students who have mastered regular classroom work” (Question 11) at least twice a month in contrast to a mere 3% of the teachers without training. Question 12 “Modify the instructional format for students who learn better using an alternative approach,” was also significantly more frequent when teachers had more training. A relatively large difference in Question 18 “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic” was evident; 80% of the teachers with training engaged in this particular practice at least twice a month while 3.3% of those with no training during their higher education.

The analysis of the four factors also seemed to demonstrate the same pattern; in all of the cases, teachers who had training during their university courses scored higher means (Figure 36).

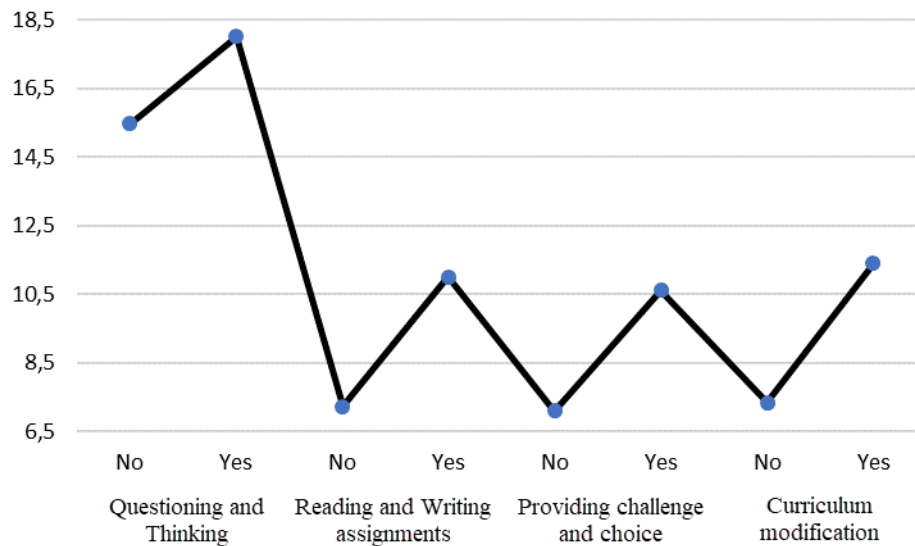


Figure 36. Means of Yes and No groups - “Did your University course include training in gifted education?”

Further analysis, however, only showed significant statistical differences in two out of four components: Reading and Writing Assignments (p 0.08) and Curriculum Modification (p 0.05) which can be seen in the table below (Table 83). It can be said that according to the results obtained in this study, teachers who had received some sort of training/workshop or seminars during their university course seemed to engage more frequently in gifted friendly practices related to Reading and Writing and Curriculum Modifications than teachers who had not had this opportunity.

Table 83

Mann-Whitney U Test for “Did your University course include training in gifted education?” across the four components

	Questioning and Thinking	Reading and Writing Assignments	Providing Challenge and Choice	Curriculum Modifications
Mann-Whitney U	58.500	21.000	34.500	18.000
Wilcoxon W	523.500	486.000	499.500	483.000
Z	-.799	-2.557	-1.924	-2.703
Asymp. Sig. (2-tailed)	.424	.011	.064	.007
Exact Sig. [2*(1-tailed Sig.)]	.448	.008	.060	.005

When teachers reported having participated in in-service courses in gifted education more engagement was shown throughout the practices, as can be seen in Figure 37.

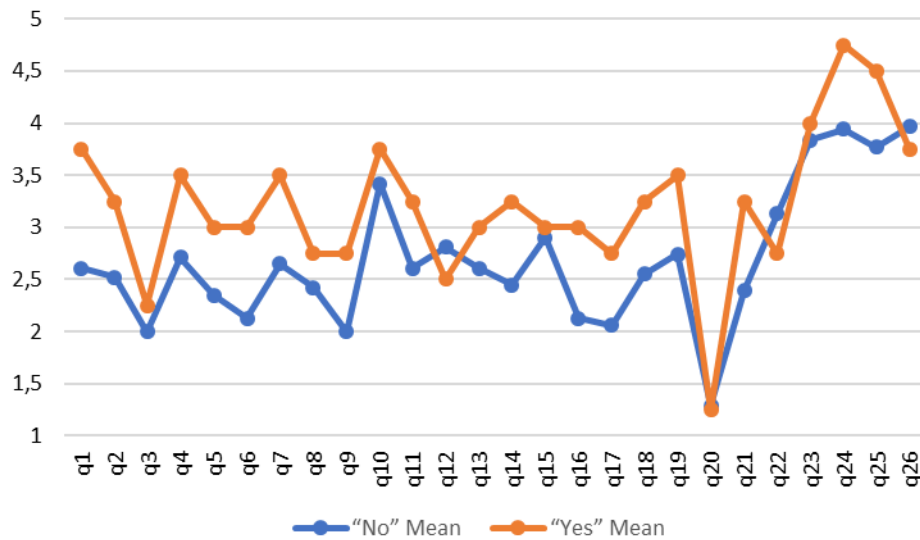


Figure 37. Means of Yes and No groups – “Have you ever participated in any in-service courses in gifted education?”

This was also evident in the analysis of the four factors (Figure 38), yet in none of the cases were there any statistical differences found. Further research with a bigger sample is warranted.

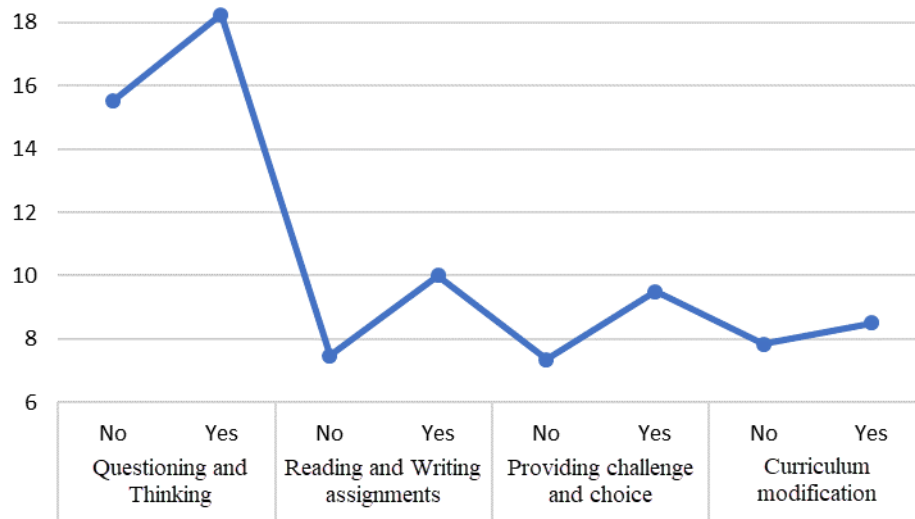


Figure 38. Means of Yes and No groups - “Have you ever participated in-service training?” across the four components

Teachers reported their level of confidence concerning teaching gifted learners by choosing Yes, No or Somewhat Confident. Despite some apparent discrepancies, no statistically significant values were found. Similarly, although some quantitative differences were present, the application of the Kruskal Wallis test on the four components revealed that the level of confidence a teacher has in teaching the gifted does not have a bearing on the usage of gifted friendly practices.

Teachers were asked to report whether they perceived themselves as gifted by selecting Yes, No or Maybe. Although no patterns were found in relation to most practices, when asked the frequency in which teachers “Engage students to ask higher-level questions” (Question 25) a statistically significant statistical value of 0.04 emerged (Table 84). Out of the teachers that reported considering themselves as gifted, all engaged in higher-level questioning more than once week (in comparison to 48% of the ones who answered No and 11% of the ones who answered Maybe).

Table 84

Kruskal Wallis Test for self-perception as gifted

Test Statistics ^{a,b}			
	Chi-Square	df	Asymp. Sig.
q1	.686	2	.710
q2	.227	2	.893
q3	2.698	2	.260
q4	1.376	2	.502
q5	.650	2	.723
q6	1.466	2	.480
q7	2.418	2	.299
q8	1.846	2	.397
q9	2.154	2	.341
q10	.245	2	.885
q11	2.486	2	.289
q12	1.347	2	.510
q13	.370	2	.831
q14	.067	2	.967
q15	1.856	2	.395
q16	.965	2	.617
q17	.294	2	.863
q18	1.452	2	.484
q19	2.010	2	.366
q20	1.532	2	.465
q21	1.491	2	.475
q22	3.634	2	.163
q23	4.047	2	.132
q24	2.052	2	.359
q25	6.440	2	.040
q26	4.839	2	.089

a. Kruskal Wallis Test

b. Grouping Variable: Do you consider yourself gifted

The factor analysis, carried out with the help of the Kruskal Wallis test did not yield any significant data. In other words, none of the factors seemed to be influenced by whether teachers perceived himself/herself as gifted. Having a family member who was gifted or not did not influence teachers' pedagogical strategies as reported by the responses given in the CPQ either. The factor analysis, carried out with the help of the Kruskal Wallis test did not yield any significant data. In other words, none of the factors seemed to be influenced by whether teachers perceived himself/herself as gifted. However, self-perception as gifted did seem to relate to more frequent usage of higher-level questioning.

III. 5.3. Findings from the semi-structured interviews

Interview questions derived from a study that aimed to look into challenges and needs of teachers teaching gifted learners in a heterogeneous classroom (Albergaria & Bahia, 2012). The researchers applied this in English to teachers working in Portugal. For the study at hand only part of the interview questions were pertinent. Nonetheless, it was deemed important to ensure that teachers were familiar with giftedness and its possible implications in the classroom setting if any valid data was to be collected. The interview questions covered fundamental overarching topics on: (1) the teacher's definition of gifted learners; (2) characteristics associated with giftedness in general and then in terms of language learning; (3) attitudes towards gifted children's social skills, acceleration, enrichment and priorities; (4) the practices implemented in order to cater for this subpopulation; and (5) current hurdles and future opportunities.

The semi-structured nature of the dialogue between the researcher and the interviewee as well as the number of interviews carried out ($N=15$) compelled us to focus on gifted-friendly practices being carried out in the classroom; other information such as on attitudes towards acceleration and rejection/isolation of gifted children are referred to in the later chapters. The interviews enabled a closer look into the information disclosed regarding secondary teachers' attitudes towards the gifted and their education as well as their classroom practices. The interview transcripts can be found in Appendix F.

When teachers were asked, "Do you do anything differently with the gifted learners in your classroom? If so, what? Can you give examples?" a range of responses were given. In the interest of facilitating analysis, it was considered important to align the practices as much as possible with the categories proposed in both the Adapted CPQ and the COS-R.

All of the teachers in the sample teach a foreign language (English, French, German or Portuguese) in a public or private school in Lisbon and reported having a gifted child in their class. Teachers' ages ranged between 24 to 50 and two out of the 15 were male.

One of the more common activities within Reading and Writing Assignments, was to "Assign reading of more advanced level work" (Table 85). Teachers ($N=4$) often

referred to the strategy of asking a student to read a book of a more advanced level while other students were completing the given task.

I have lots of small books in English with stories and if he finishes it I can give him one so he can stay there and read it, because that is what he likes, he loves to read – really huge books and everything. (Teacher O)

Three teachers then extended this activity by “Giving creative or expository writing assignments...” based on this extra, advanced reading.

...when we are reading a short story, she gets a special task where she has to get information and background about the situation of the people at the time. (Teacher D)

Only one teacher assigned “....projects or other work requiring extended time for students to complete”.

One third of the foreign language teachers ($N=5$) reported using questioning strategies as a form of differentiation; more specifically, open-ended questions were used with the gifted and talented learners.

For example, for the high ability I ask them to formulate a question and for the others I just say the beginning of the sentence and let them complete the sentence. Or just a simple yes or no question which is easier for them. The high ability can do all of them, so it's different. (Teacher I)

Teachers ($N=2$) also tended to “Encourage student participation in discussions”.

Well, just to get her to shine a bit more in class, get her more active. For example, today's activity she was one of the spokespersons for the group so if I hadn't asked her to do that I would run the risk of her switching off or not switching off but feeling “Okay, this is easy peanuts,” and she needs to be presented with more challenges... (Teacher B)

Amongst responses grouped under “Providing Challenge and Choice”, some teachers reported using mixed-ability groupings only. Yet, five interviewees stated adopting homogeneous groupings at times. Teachers ($N=4$) also reported using the next level book to provide more challenging grammar and vocabulary exercises i.e., “Provide a different curricular experience by using a more advanced curriculum unit”.

I noticed that everything was too easy for them so I decided to use the book for normal 10th graders and it represented a challenge for them and everything became easier, and they were more interested, they were learning and they were producing. Usually these students want challenges - they want to hear something that they have never heard before. (Teacher G)

One teacher even enabled a student to attend the following grade’s English classes in order to provide her with a richer learning experience. Only three teachers out of 15 reported considering ‘...students’ opinions in allocating time for various topics’.

So we made like a long list of possibilities and she picked one.....so we decided that she would be accelerated and also work on her own. (Teacher K)

Teachers ($N=3$) also “required students to gather evidence from multiple sources...”.

I just took newspapers, lots of newspapers, stacks of newspapers to the classroom and I told them to find articles on a certain topic. Some of them were done very fast, they found one and they summarised it, wrote the most important words. D kept reading for two hours. He just sat there, he never came up with an example but I’m sure he chewed up all of those news. Because he had the time and he was interested. (Teacher A)

Whenever I approach a topic, I invite them to search Google for the topic and bring me everything that they may find interesting (a song, a video

clip) and it really is interesting. We bring it to class and we work on this.
(Teacher N)

Table 85

Frequencies of Practices as collected from Semi-Structured Interviews

Reading and Writing Assignments	F
Assign reading of more advanced level work	4
Assign projects or other work requiring extended time for students to complete	1
Give creative or expository writing assignments on topics selected by the teacher	2
Give creative or expository writing assignments on topics selected by the student	1
Questioning and Thinking	
Ask open-ended questions	5
Encourage student participation in discussions	2
Providing Challenge and Choice	
Allow students within your classroom to work from a higher level textbook	4
Group students by ability across classrooms at the same grade level	5
Consider students' opinion in allocating time for various topics	3
Send students to a higher grade level	1
Research Strategies	
....required students to gather evidence from multiple sources through research-based technique (e.g., print, non-print, internet, self-investigation via surveys, interviews, etc.)	3

Although responses from teachers were aligned with the strategies proposed in the Adapted Classroom Practices Questionnaire and the Classroom Observation Scale Revised and presented in this section as embedded within those categories, other strategies were also referred to as a form of catering for the gifted learners which were not listed in either of the two instruments. These strategies included (i) providing further worksheets to practice what the gifted students had already completed, (ii) systematic mixed-ability groupings as well as (iii) requesting gifted students to take up the role of class assistants in where students would then be asked to help their colleagues. As gifted literature suggests, these practices are not recommended practices for gifted learners and will be elaborated upon in Chapter 4.

III. 6. Research Question Three

How do secondary teachers differentiate instructional practice to accommodate their gifted learners?

The COS-R was the instrument used to record observation of 25 items of expected behaviours in six sub-categories: these six subscales are (1) Curriculum Planning and Delivery (CPD); (2) Accommodation for Individual Differences (AID); (3) Problem solving Strategies (PS); (4) Critical Thinking Strategies (CRE); (5) Creative Thinking Strategies (CRI); and (6) Research Strategies (RS). The scores involved the rater to assess the presence of a practice as effective (3), somewhat effective (2) or ineffective (1). There was also the possibility of scoring N/O which meant that the practice was not observed in the duration of the class. As can be expected, not all the teachers attempted all of the practices. Teachers were more likely to engage in Curriculum and Planning related strategies than to any other (see Figure 39).

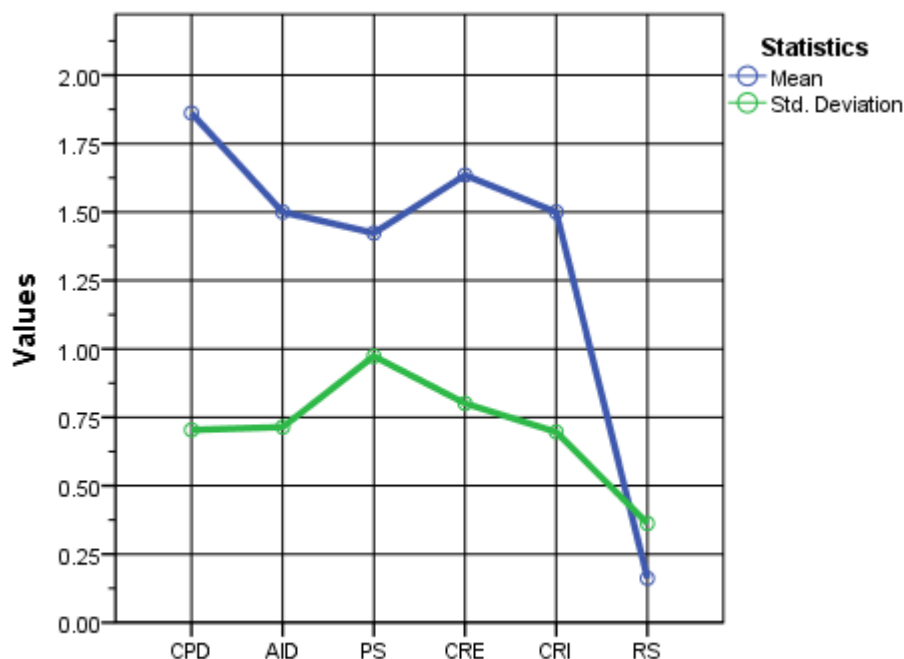


Figure 39. Means and standard deviations of the six strategies of the COS-R

The mean score (Table 86) indicates that the teachers carried this out somewhat effectively in most of the cases ($M=1.86$). The following most commonly used

strategies fell under the topic of Creative Research Strategies ($M=1.63$) which was then followed by Accommodations to Individual Differences and Creative Thinking Strategies (both $M=1.50$). Problem Solving Strategies were used slightly less frequently ($M=1.42$) but Research Strategies were observed to have a mean of 0.161 meaning that on average the teachers that were observed were ineffective when using this practice or not observed engaging in this strategy. In fact, only five out of the 26 teachers engaged in catering for the gifted via Research Strategies. However, the authors of the instrument highlight that various practices would be atypical to observe during the duration of one class (VanTassel-Baska et al., 2005) which was the case in the current study. Due to extenuating circumstances, classes were observed only once.

Table 86

Statistics of the six strategies of the COS-R

		Statistics					
		CPD	AID	PS	CRE	CRI	RS
N	Valid	26	26	26	26	26	26
	Missing	0	0	0	0	0	0
Mean		1.86	1.50	1.42	1.63	1.50	.161
Std. Deviation		.703	.714	.973	.800	.696	.362
Minimum		.80	.75	.00	.75	.75	.00
Maximum		3.00	3.00	3.00	3.00	3.00	1.20

Within each subscale, there were variations in the frequency in which they were implemented (Appendix G; tables 1 to 6). Within Curriculum Planning and Delivery, teachers in this sample more often “encouraged students to express their thoughts” (CPD4; $M=2.15$) as well as “set high expectations for student performance,” (CPD1; $M=2.04$). These were both carried out somewhat effectively. All the other activities were carried out either ineffectively or somewhat effectively (Figure 40). These included incorporating activities for students to apply new knowledge (CPD2; $M=1.92$); engaging students in planning, monitoring or assessing their learning (CPD3; $M=1.69$) and having students reflect on what they had learnt (CPD5; $M=1.50$).

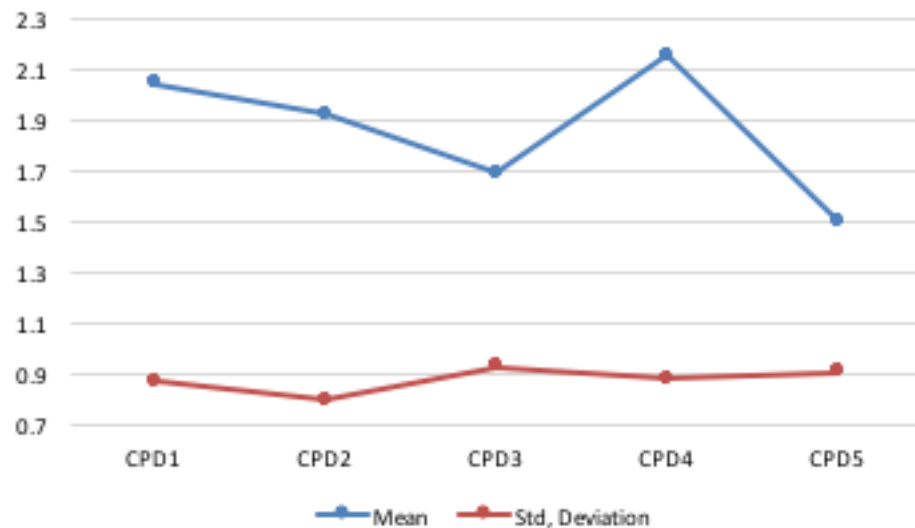


Figure 40. Means and standard deviations for all items in Curriculum Planning and Delivery

All the practices within Accommodations for Individual differences were carried out between ineffectively to somewhat effectively ($M=1.38$ to 1.65). Although teachers engaged in (i) providing opportunities for independent or group learning to promote depth in understanding content (ii) accommodated individual or subgroup differences, (iii) encouraged multiple interpretation of events and (iii) allowed students to discover key ideas through structured activities, in general these were not deemed to be effective.

Problem-Solving activities such as (i) brainstorming techniques and ii) engaging students in problem identification and definition were often ineffective and other times were carried out somewhat effectively ($M=1.36$ to 1.46).

Regarding Critical Thinking Strategies, teachers were more likely to (i) encourage students to judge or evaluate situations problems or issues more effectively (CRI1; $M=2.04$) then (ii) engage in activities involving comparing and contrasting ideas (CRI2; $M=1.62$), (iii) providing opportunities for students to generalise from concrete data or information to the abstract (CRI3; $M=1.08$) and lastly (iv) encourage student synthesis or summary of information within or across disciplines (CRI4; $M=1.27$). This can be seen in Figure 41.

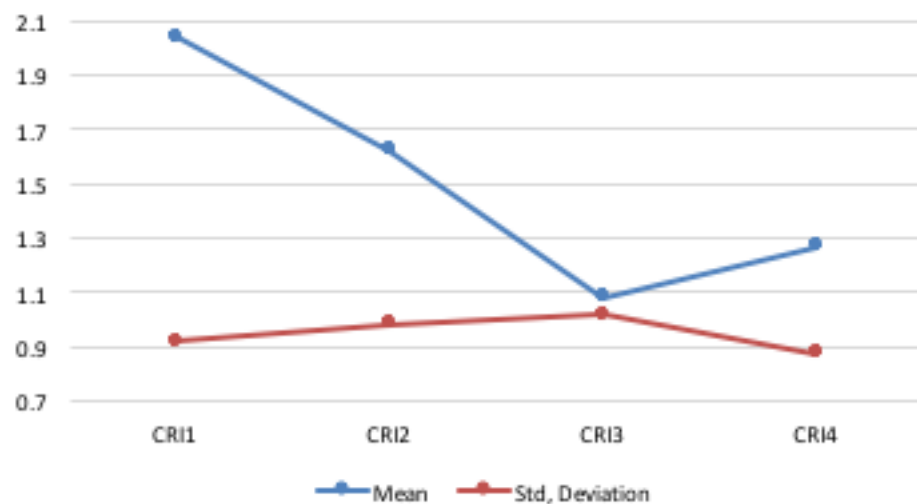


Figure 41. Means and standard deviations for all items in Critical Thinking Strategies

Creative Thinking Strategies were observed and judged to be either ineffective or somewhat effective (Figure 42). These involved (i) soliciting diverse thoughts about issues (CRE1; $M=1.88$); (ii) engaging students in the exploration of diverse points of views to reframe ideas (CRE2; $M=1.50$); (iii) encouraging students to demonstrate open-mindedness and tolerance of imaginative, sometimes, playful solutions to problems and (CRE3; $M=1.50$); (iv) providing opportunities for students to develop and elaborate on their ideas (CRE4; $M=1.65$).

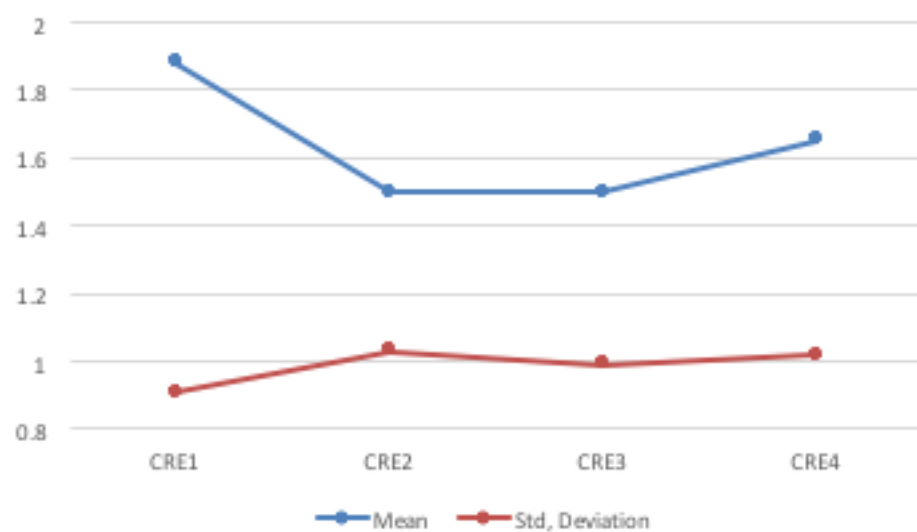


Figure 42. Means and standard deviation for all items in Creative Thinking Strategies

Research Strategies were often not attempted, i.e., these were often not observed. These included (i) assisting students in making inferences from data and drawing conclusions, (ii) encouraging students to determine implications and consequences of findings as well as (iii) providing time for students to communicate research study findings to relevant audiences in a formal report and/or presentation. When teachers did choose to implement research strategies, they requested students to (iv) gather evidence from multiple resources and at times (v) provided opportunities for students to analyse data and represent it in appropriate charts, graphs or tables.

III. 6.1. Observed Gifted Friendly Practices and Variables

It was also considered important to compare the COS-R means according to the demographic descriptors and contextual data provided by the teachers. With reference to the strategies related to Curriculum and Planning, teachers who had more than 15 years of experience yielded mean scores between 0.8 and 2.8. More variation was observed amongst teachers with less than 15 years of experience ($M=0.8$ to 3). In fact, the four teachers that carried out Curriculum and Planning strategies effectively, i.e., scored 3, had less than 15 years of experience. A similar trend, where less experienced teachers scored means of 3, was observed across all the subscales. Nonetheless, it is important to take into account that out of the 26 teachers, only 10 had more than 15 years of experience with the remaining number (16) having less experience. Further research is recommended.

Teachers who carried out strategies effectively and were rated highest within Curriculum Planning and Delivery, Accommodations for Individual Differences, Problem Solving Strategies and Critical Thinking Strategies tended to be teachers from private schools.

Teachers that reported having had training during their university courses were observed to carry out activities more effectively ($M=3$), regardless of the subscale. In other words, two out of the three teachers that had had gifted training yielded maximum means while the same number of teachers ($N=2$) scored the same amongst the remaining 23 that had not had any training. Although the numbers within this sample do not allow for statistical analysis which may detract from any possible generalisations

that can be made, it seems that training in gifted education seem to have a positive impact on gifted-friendly strategies implemented by secondary teachers of English as Foreign Language in Portugal. None of the other demographic nor contextual factors seem to reveal any correlations amongst the scores. These include number of gifted children in the classroom as well as the grades being taught. Once again, it is important to underline that further analysis with a bigger sample may be fruitful in exploring gifted friendly practices within the classroom.

III. 7. Summary of Findings

III. 7.1. Research question one

What opinions/attitudes do secondary teachers of English (as a Foreign Language) hold concerning gifted learners and their education.

The quantitative analysis undertaken for this part of the study involved identifying outliers, ensuring recommended internal reliabilities by calculating Cronbach's alphas for each of the constructs as well as a Factorial Analysis which helped achieve a more trimmed down yet efficient scale. One hundred and ten secondary teachers of English as a Foreign Language responded to an online version of Gagné and Nadeau's attitude Scale. Demographic data and other contextual variables were also collected and analysed to find any possible correlations.

When the data was analysed in terms of the individual constructs, secondary teachers of English in Portugal reported very positive attitudes in the construct measuring Needs and Support ($M=4.182$). In other words, teachers demonstrated an understanding of different educational needs of the gifted and the role of the school in its provision. Teachers' attitudes as measured by the construct Resistance to Objections were found to be favourable ($M=3.59$); this construct purports to measure how teachers' ideologies may interfere with the provision for the gifted. However, for both Rejection and Ability Grouping, data analysis revealed that secondary teachers of English in Portugal harbour less positive attitudes than in the previously mentioned constructs ($M=2.88$ and 2.83 respectively). The dimension of Rejection, which aims to measure the perception of the isolation of gifted individuals in society showed that teachers are ambivalent ($M=2.88$). Similarly, secondary teachers of English in Portugal

demonstrated ambivalent attitudes in what concerns homogenous grouping as measured in the Ability Grouping construct.

Male teachers tended to show more positive attitudes in the Needs and Support construct, which aimed to measure the understanding of gifted students' different educational needs and the role of the school in its provision. When comparing attitudes towards giftedness and the type of school teachers worked in, public school teachers were observed to harbour more positive attitudes towards homogeneous groupings as measured by the Ability Grouping construct. Very surprisingly, teachers who had had no in-service training were more likely to harbour positive attitudes towards Ability Grouping for the gifted than teachers who had had this opportunity.

III. 7.2. Research question two

How do secondary teachers of English perceive the way they differentiate instructional practice to accommodate their gifted learners?

Findings from the Revised CPQ

Similarly to the OGE, one hundred and ten teachers responded to an online version of an Adapted CPQ which asked teachers to report how frequently they engaged in 26 gifted friendly practices. Only thirty-five teachers reported having a formally or informally identified student in their current classrooms. Thorough statistical analyses were carried out to ascertain internal reliabilities of each of the constructs; a reduction in the number of variables and the identification of a structure amongst the relationships between variables was enabled with Factorial Analysis. Demographic data was also analysed to find any underlying relations with the frequency in which teachers engaged in various practices.

Although three out of 26 practices seemed to show a quantitative difference in the frequency with which these are implemented with both gifted and non-gifted/average students, no statistically significant differences were found. In fact, teachers were found to carry out more strategies related to Curriculum Modification with the non-gifted/average learners than the gifted. Teachers did however provide slightly more opportunities for gifted learners in the component entitled Providing challenge and Choice. Based on the sample of teachers of English as a Foreign

Language that participated in this study, little or no differentiation that caters for the gifted is taking place in English classrooms in Portuguese schools.

III. 7.2.1. Most frequent practices when working with gifted students

When analysing which practices were most frequently carried out with gifted students, secondary teachers of English reported that their gifted learners were almost never sent to a higher grade level; gifted learners had the opportunity to write book reports slightly more often than once a term. The following strategies were carried out with a similar frequency: develop creative or expository writing assignments; use pre-tests to determine if they had already mastered the material to be taught; given time within the school for students to work on projects and work from a higher level textbook.

Teachers catered for the gifted a little more frequently (a little less than once a month) by engaging students in reading assignments as well as projects, using word searches or puzzles and allowing them to pursue self-selected interests. Activities such as substituting material students have mastered, modifying the learning format, encouraging the students to move around within the classroom, differentiating homework for the gifted, providing a richer experience by working on a more advanced unit, establishing interest and ability groupings was carried out a little under once a month.

More than once a month, teachers in this sample tended to repeat coverage of more difficult concepts and consider students' opinions when allocating time for various topics. The most frequent practices were providing questions that encourage reasoning and higher level thinking which were carried out a little less than twice a month. The most frequently applied practices by teachers of English as a Foreign Language were answering open-ended questions and encouraging participation in discussions about twice a month.

Practices considered gifted-friendly strategies within Reading and Writing Assignments, Providing challenge and Choice and Questioning and Thinking were more frequent in international schools than in other schools. More specifically, the type of school teachers worked in seemed to have an influence on the following practices: "Assign projects or other work requiring extended time for students to complete";

“Group students by ability across classrooms at the same grade level”; “Encourage students to ask higher-level questions” and where teachers answered how frequently they “Encourage student participation in discussions.”

Despite the size of the sample, significance was found in the strategy which involves sending students to a higher grade level and teaching experience; teachers with more than 20 years of experience were less likely to engage in this strategy in comparison to lesser experienced peers.

When teachers have more hours of English a week, there was more engagement with the following practices: Assigning projects or other work requiring extended time for students to complete; giving creative or expository writing assignments on topics selected by the teacher; eliminating curricular material that students have mastered; providing a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic and grouping students by ability across classrooms at the same grade level.

The influence of levels of qualification seemed to be almost none except when teachers answered how frequently they “Use pre-tests to determine if students know before a new topic is given”. Surprisingly, teachers with an undergraduate level of study seemed to apply this strategy more than their more qualified peers.

Differences shown by a statistical level of significance lower than 0.05 were found in 15 of 26 gifted friendly practices in the CPQ when looking at gifted education training/workshops within university courses. This indicated that teachers who reported to have had endorsed in some form of gifted education as part of their university course engaged in specific gifted practices more often than when teachers did not have this kind of training. Teachers who had had training/workshop in gifted education during their further education reported more engagement in the following practices; “Assign reading of more advanced level work”; “Assign projects or other work requiring extended time for students to complete”; “Make time for students to pursue self-selected interests”; “Eliminate curricular material that students have mastered”; “Assign different homework based on student ability”; “Allow students within your classroom to work from a higher grade level textbook” as well as “Send students to a higher grade level.” Training in gifted education also seemed to result in significantly more usage of the following; “Assign book reports”; “Give creative or expository writing assignments

on topics selected by the teacher”; “... pre-tests to determine what students know before a new topic is given”; “Substitute different assignments for students who have mastered regular classroom work”; “Modify the instructional format for students who learn better using an alternative approach” and “Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic”.

Lastly, teachers seemed statistically more likely to engage students in asking higher-level questions when they perceived themselves as gifted.

III. 7.2.2. Findings from semi-structured interviews

The semi-structured interviews carried out on a group of fifteen foreign language teachers provided a list of more frequently carried out activities as reported by the teachers which were aligned with the groups of strategies from the Adapted CPQ and the COS-R. Similarly to the results obtained from the Adapted CPQ, the most common activities also included using open-ended questions as a form of differentiation. Other common practices, as reported by around a third of the teachers that were interviewed included i) assigning reading of more advanced level work and ii) grouping students by ability across classrooms at the same grade level. Contrary to the observations made in the classrooms, teachers in this sample were more likely to report usage of Research Strategies.

Again, similarly to the results obtained from the Adapted CPQ, interviews seem to point towards rare usage of strategies that involved (i) gifted learners to be sent to a higher grade level; (ii) developing creative or expository writing assignments; and (iii) assigning project or other work requiring extended time for students to complete.

III. 7.3. Research question three

How do secondary teachers differentiate instructional practice to accommodate their gifted learners?

The classroom observations carried out with the use of the COS-R, in both private and public schools in Lisbon demonstrated that when teachers accommodated their gifted learners they were more likely to do so in strategies related to Curriculum and Planning. Amongst the twenty-six foreign language teachers, the most popular

amongst these were the following where teachers “encouraged students to express their thoughts,” as well as “set high expectations for student performance.” Yet, on average teachers tended to implement these two strategies somewhat effectively. Slightly less used were Critical Thinking Skills which were followed by strategies grouped as Accommodations to Individual Differences and Creative Thinking Strategies. These groups had means between 1.5 and two which indicated that in most cases, teachers evidenced some planning and/or classroom flexibility in implementation of the behaviour, eliciting some appropriate student responses. This also impels that in accordance with the COS-R scale, teachers were sometimes clear and focussed on the purpose of learning. Slightly less effectively used were Problem Solving Strategies. Teachers were not often observed engaging in Research Strategies and when these were applied, they were ineffective.

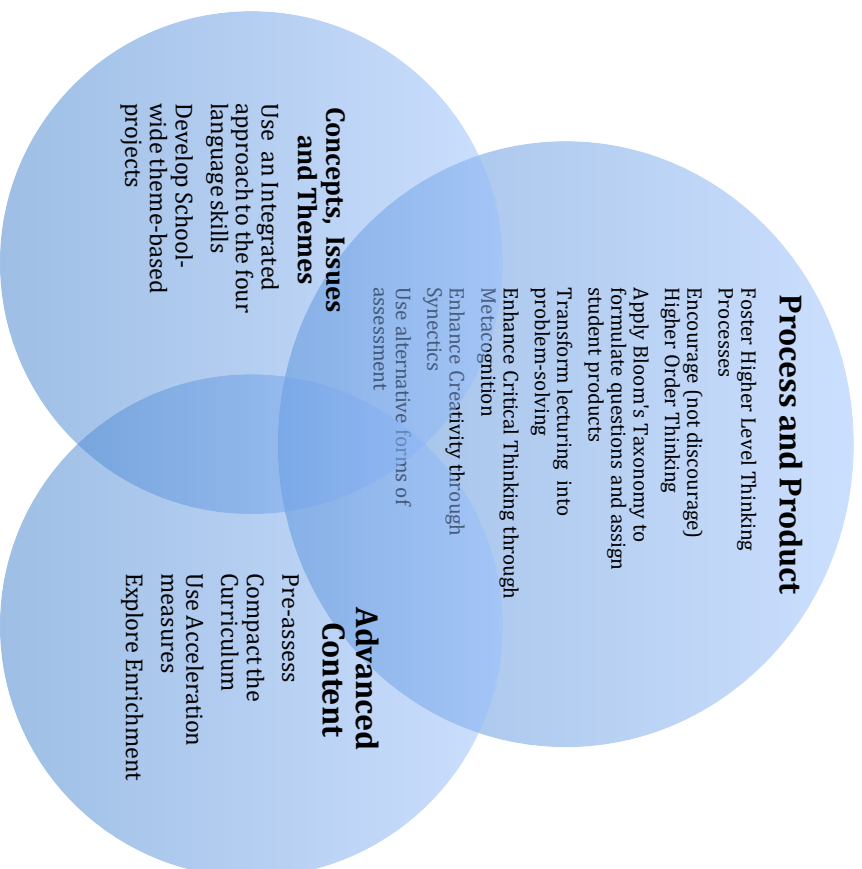
In the sample studied, teachers with less than 15 years experience, working in private schools and teachers who had endorsed some form of gifted education training/workshops during their university degrees were more likely to engage in more effective implementation of the gifted-friendly strategies as proposed by the COS-R.

CHAPTER IV: GIFTED FRIENDLY SUGGESTIONS FOR THE EFL TEACHER

Well, I would like to know how other people do this... again what suggestions and what tips; are we doing the right thing? Should we be pushing them and putting them out there and using them as an example? I think that's what is lacking. (Teacher B)

IV. 1. Introduction

As VanTassel-Baska (2003b) reminds us, what we are looking for is acceleration, depth, complexity, challenge and creativity when differentiating for the gifted. Curriculums more often than not follow a developmental and sequential order. Teachers need to adjust higher expectations in concepts, process and content levels. It is vital to consider how teachers can be supported with ideas and strategies that are beneficial for their gifted learners. The aim in this chapter is to bridge the gap between research-based best practices in gifted education as examined in the literature review and research pertaining to current gifted friendly practices of secondary teachers of EFL obtained in this study. The figure below (Figure 43) is a synthesis of the suggested strategies to be presented in this chapter under the dimensions of Concepts, Issues and Themes, Process and Products, and Advanced Content. Flexible grouping strategies, albeit not a part of the ICM, have also been included as it is a recommended practice. Student choice has been incorporated into the diagram as an inherent aspect of differentiating for the gifted. The data obtained from the semi-structured interviews also shed light on counterproductive practices taking place, such as giving gifted learners the role of class assistants and avoiding to engage in differentiating practices as teachers may mistakenly be under the impression that gifted learners will “make it on their own”. Teachers also reported some misconceptions related to the heterogeneity of gifted children. As this chapter focuses on providing support for teachers based on research obtained from the data collected in this thesis, it was deemed relevant to incorporate these three aspects in the list of suggestions.



Flexible Grouping

Use Cooperative Learning judiciously
Employ Flexible Grouping Structures

Other Findings

Understand that "no standard pattern exist among gifted individuals"
Refrain from giving gifted learners the role of class assistant
Understand that they will not "make it on their own"

Student Choice

Figure 43. Suggested gifted friendly practices for the EFL teacher as a result of current practices in Portugal (adapted from Drain, 2008; 2009).

As stated above, it is vital that gifted learners are challenged in terms of concepts, processes and content. A good starting point for teachers would be through the systematic application of prescriptive-diagnostic assessments to find all that students have already mastered and learnt, accelerating the process and subsequently, presenting advanced content. In this manner, teachers and students are not imprisoned by the curriculum. However, teachers that participated in the Adapted CPQ study demonstrated that the usage of pre-tests to determine if students had already mastered the material to be taught was carried out on average only once a term; differences were not found amongst its usage between gifted and non-gifted learners.

Pre-assessment information is important in that it can be used to modify the curriculum; this means understanding what the students have mastered before beginning a topic and exploring ways in which to modify the curriculum. This can be done in terms of depth or breadth of the topics. Gifted friendly measures which allow for students to move faster through a topic, progress to a more advanced topic or even grade are all possibilities. Yet, according to the results obtained from the Adapted CPQ, on average teachers allowed students to work from a higher level textbook only once a term. Teachers engaged students in using a more advanced curriculum unit slightly more frequently but almost never sent a student to a higher grade level. Compacting the curriculum, acceleration measures and ways in which to implement enrichment are explored in this chapter.

Elements of advancement, depth and complexity need to be present at all times if gifted students are to persevere in the learning of a foreign language. The love of reading and its importance to children, particularly to gifted learners cannot be overestimated. Besides not differentiating between gifted and non-gifted/average learners, teachers in the sample under focus assigned reading a little less than once a month. Further insight from the semi-structured interviews shed light on usage of reading as a fast-finisher activity with little variation in the type of literature, genres and styles. A varied literature selection can and should be encouraged. With graded readers or not, gifted learners can be provided with a variety of challenging experiences such as classics, poetry, plays, essays, biographies and revert to some primary sources of reading too. Metacognition can be fostered by allowing students to select their own reading material and creating awareness of personal preferences. Students can be

encouraged to read and discover their favourite writers and study their lives. Giving students choice as part of effective strategy with gifted learners has been strongly advocated by some researchers. As shown in the earlier part of this thesis, emphasis needs to be placed on critical reading and the development of analytical skills.

Most often the books students read were selected by teachers and based on the results obtained. Teachers did not seem to allow many opportunities for further project work based on this reading; students were also rarely assigned book reports. Further work could involve doing some independent research study in the area. If a gifted learner is interested, a possible idea could involve developing lexis, creating links in words and origins and furthering an appreciation of the origins of language. Higher order thinking and being engaged in a motivating task makes it easier to master and transfer learning to other contexts.

Another manner in which assignments and projects could be carried out is making inferences and synthesizing the attitudes and behaviour of characters, stretching the child's critical and creative thinking skills as well as his/her verbal reasoning skills. Again, data collected from the Adapted CPQ found that teachers resorted to asking open-ended questions and encouraging participation in discussion as a way of promoting questioning and thinking skills. However, there are numerous ways in which higher level thinking processes can be fostered; one of which includes phrasing questions as suggested in Bloom's Taxonomy (1956). The EFL teacher needs to put into practice higher order questioning strategies which are differentiated, which do not simply require recall of facts. A study by Zohar, Degani and Vaaknin (2001) interviewed EFL teachers and found evidence to suggest that a predominant majority (70%) posed the same questions, regardless of ability levels. Answers to potentially interesting questions elicit a range of responses from "Don't ask me irrelevant questions" to reactions of dismissiveness. EFL teachers should be trained in further questioning such as "Why do you think this might be the case?" and foster brainstorming. Hence, suggestions on how to foster higher level thinking processes by avoiding certain types of responses when answering questions has also been included as a suggested gifted-friendly strategy.

Evidence gathered from the COS-R indicated that although Critical Thinking Strategies and Creative Thinking Skills are being used, they are often done so ineffectively and at times somewhat effectively. The most common strategies observed

involved encouraging students to judge or evaluate situations, problems or issues more effectively, engaging students in activities that involve comparing and contrasting ideas and soliciting diverse thoughts about issues. How can other strategies be carried out so as to enhance Critical and Creative Thinking Skills? How can practices within the EFL classroom promote opportunities for students to generalise from concrete data or information to the abstract, encourage student synthesis or summary of information within or across disciplines and encourage students to demonstrate open-mindedness and tolerance of imaginative, sometimes, playful solutions to problems? This section aims to provide a repertoire of gifted-friendly suggestions.

Self-selected reading can also be used for persuasive writing skills or argumentation, writing poetry or plays. For example, the Lisbon Metropolitan encouraged writing and creativity by organizing poetry competitions in foreign languages. Finding natural learning situations in which reading, writing, speaking, and listening can be developed together for real purposes and real audiences is part of an integrated and balanced approach of the four skills. It would be very motivating for a student to participate in this type of goal-oriented task, yet highly creative task.

Another way in which to cater for our high ability is to make assessment more varied and authentic. Data obtained from the semi-structured interviews suggested that no differentiated assessment was being carried out. For example, after having read a short story of advanced complexity, a student may be requested to create a game based on the main characters of the book or assessed when presenting the final product to their peers or a more mature audience. This could replace a traditional form of assessment. Gifted learners should benefit from non-conventional forms of assessment which is more advanced, open-ended and driven towards demonstrations of problem-solving skills and higher thinking processes (VanTassel-Baska et al., 2008). Some ideas in which to vary assessment have been developed in this chapter.

Another fundamental aspect which demands reflection are flexible grouping strategies. Secondary teachers of English reported grouping students by ability about once a month. In the suggestions below, ways in which to optimise grouping to cater for the gifted have been provided.

IV. 2. Suggested Actions

Suggestions have been listed close together under the three interconnected topics which are Concepts, Issues and Themes, Advanced Content, Process and Product, and then Flexible Grouping. Results obtained from the Adapted CPQ, OGE and COS-R were amalgamated to compile a list of research-based suggestions. The three suggested practices which were deemed important on account of the data obtained in the semi-structured interviews have been incorporated within the groups mentioned above. Although by no means is the list of suggestions a thorough one, it can be considered a starting point in supporting teachers to engage in more gifted-friendly practice.

IV. 2.1. Understand that “No standard pattern of talent exists among gifted individuals”

They have difficulty in social skills. (Teacher I)

They are very shy. (Teacher I)

They are also very anxious in general. (Teacher M)

They are usually very lazy students. (Teacher G)

There is no formula, nor one single approach that has been found to cater successfully for ALL gifted learners. Teachers face a distinct challenge in that gifted students vary from each other as they do from non-gifted peers. Whilst teachers' perceptions may vary (as can be seen above), no single trait has been found to constitute giftedness.

There is no more varied group of young people than the diverse group known as gifted children and adolescents. Not only do they come from every walk of life, every ethnic and socioeconomic group, and every nation, but also they exhibit an almost unlimited range of personal characteristics in temperament, risk-taking and conservatism, introversion and extraversion, reticence and flamboyance, and effort invested in reaching goals. No standard pattern of talent exists among gifted individuals (Neihart, et al., 2002, p. 1).

It is fundamental for example that teachers understand and dispel myths that encourage the idea that gifted students come from upper middle class families where parents have the educational background and means to nurture their children. This is far from the truth (Reis & Renzulli, 2009). Teachers should be open to giftedness in all children independently of their cultural, socioeconomic and educational backgrounds.

Giftedness may also manifest in one or more domains such as intellectual, creative, artistic, leadership, or in a specific academic field such as languages, mathematics or science. They may show uneven talent in differing areas or manifest an all round general high ability in intellectual areas. Raising awareness amongst educators about these different manifestations of talent is important.

...she learns quickly but just in English and not in all subjects. So...I don't think she is a gifted student. (Teacher N)

When they are good at English, they are normally always not very good at other subjects. (Teacher G)

The variation in levels of giftedness also have implications on cognitive development and therefore the kind of educational experiences that should be provided (Silverman, 2013). Students may range from being moderately gifted to profoundly gifted and may not fit into often stereotyped ideas of a gifted person.

....to me personally (being gifted) implies that that he is interested and he wants to learn more and he wants to get the Nobel prize at the age of 18... you know? (Teacher A)

Teachers also relate high achievement to gifted learners. Not all gifted learners get straight As. Underachievement due to decreased motivation, effort, interest and absence of challenge and support may be present in some individuals. Students may have become accustomed to breezing through primary and most of secondary school by expending minimum energy and not having acquired good work habits. Time management and organisational skills may be lagging behind. Many students might try to conceal their abilities to fit in socially. Teacher K's experience resonates with this:

She tries more to blend in. She loses on purpose; she still finishes first but she tries to lose on purpose. (Teacher K)

Besides effort and motivation, empathy, courage and optimism may also differ amongst gifted individuals.

Gifted learners can also demonstrate a mismatch between their cognitive, social, emotional and physical characteristics (Morelock, 1992; Silverman, 1997). Intellectual skills may be advanced, reading skills may be well ahead of peers but they may exhibit lagging social or fine motor skills. It is important for teachers to understand that this mismatch referred to as asynchrony is a possible characteristic of gifted children, which may lead to overlooking and dismissing giftedness within our classrooms. Gifted students with learning disabilities can go unrecognised (Pfeiffer, 2015).

No two gifted learners are alike. As observed in the classrooms and stated by the interviewed teachers, when there were two gifted students in the classroom there were few similarities between them. Hence, the solution lies in tailoring instruction that takes into account learning styles, pace of learning, interests, expectations, motivation, abilities and different reading skills as well as personal characteristics of our gifted learners (George, 1997).

Taking advantage of pre-assessment, multi-modal forms of assessment, interest inventories and observing student behaviour in different interactions can help construct their individual profiles and plan accordingly. For example, Teacher F noticed that her formally identified gifted student is able to elaborate on and discuss the source of his colleagues' headaches, stomachaches etc. with some detail in his mother tongue and understands that he knows "every single detail of it...he knows it all" needs to consider some form of task to promote this personal interest in the body and its workings in the English classes. Teacher K elaborated on his preferred strategy:

I talk to all my students. I invite them once in a while and we have like a conference - what's going well...what's not. (Teacher K)

Regular, individual conferences are another way of getting a more holistic picture of the learners.

As Tomlinson reminds us, the only way forward to a healthy, inclusive classroom is to “work continually to...see who they really are, what makes them unique in the world” (Tomlinson, 1999, p.31) and then challenge them in their specific needs. Teacher N reflects this when she says,

What I always have in mind is that they cannot be demotivated in my class. I keep finding something extra. (Teacher N)

It is constantly challenging ourselves to challenge our gifted learners which will bring us further in closing this gap. This is true for all learners.

IV. 2.2. Pre-assess

It is quite common for teachers to begin a new unit with some direct instruction under the assumption that everyone is at the same baseline. However, as Winebrenner states, “In September, many of these youngsters could take the assessments that all students in their grade will take at the end of the year and still score at or above the 95th percentile” (Winebrenner, 2000, p 53). So why not gauge students’ knowledge and mastery of the learning objectives at the beginning of every new unit? In the present study, teachers reported implementing this strategy only once a term. This pre-assessment can take place in the form of an ungraded quiz in order to understand what students already know. In fact most textbooks include a unit test which could be used at the beginning of a unit rather than at the end (Reis & Renzulli, 2005). This opportunity should be given to all students. Depending on the results, students’ abilities would be discerned for that particular topic or subject. If there are students in the classroom that demonstrate understanding all the challenging aspects of a unit, there is no need for them to go through all the learning that other students require. There is no need for any relearning to take place. This time can be utilised for other forms of challenges.

IV. 2.3. Compact the curriculum

Compacting, which refers to the elimination of already mastered materials is a strategy that is a must when catering for high ability learners (Reis & Renzulli, 2005). According to the data gathered from the Adapted CPQ, teachers compacted or

eliminated already mastered material approximately once a term, the same frequency as pre-assessing was carried out. The grid shown below (Figure 44) is referred to as a curriculum compactor. The first column should include information on learning aims and student strengths within the subject areas. The second column is for teachers to document in detail pre-test assessment results which can be either informal or formal, traditional or alternative forms of assessment. It is important to highlight what percentage of the unit/content/objectives have been mastered as well as what contents have been mastered. The third column is used to suggest replacement activities either for enrichment and/or acceleration such as independent study, telescoping, single subject acceleration etc. (Renzulli & Smith, 1979).

INDIVIDUAL EDUCATIONAL PROGRAMMING GUIDE The Compactor		
NAME _____		AGE _____ TEACHER(S) _____
SCHOOL _____		GRADE _____ PARENT(S) _____
CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.	PROCEDURES FOR COMPACTING BASIC MATERIAL Describe activities that will be used to guarantee proficiency in basic curricular areas.	ACCELERATION AND/OR ENRICHMENT ACTIVITIES Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.
Name it.	Prove it.	Change it.
What material needs to be covered?	Exactly what material is to be excluded?	What enrichment and/or acceleration activities will be included?
What evidence shows a need for compacting?	How will you prove mastery?	Independent Study Acceleration Mini-courses Honors Courses College Courses Mentorships
		Small Group Investigations Work Study

☐ Check here if additional information is recorded on the reverse side.

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Figure 44. The Compactor (Renzulli & Reis, 2003, p.195)

One of the reasons that teachers refrain from compacting is due to a fear that students may be harmed when carrying out standardised tests. However, studies carried out by Reis et al. (1993) and Reis, Westberg Kulikowich & Purcell (1998) showed that although 40%–50% of the curriculum was compacted for a sample of 436 students, high ability learners still maintained the same high end of year scores. Similarly, positive

results in terms of achievement and attitude were reported by Stamps (2004). Those parents whose children's learning had been compacted reported that their children had more favourable attitudes towards the subjects than the group of parents whose children did not experience compacting. Educators are to rest assured that this strategy does not adversely affect high-ability learners (Robinson et al., 2007). It is also important to highlight that the real challenge does not rest in identification of the material to be eliminated but what to do in the released time. Options may include various possibilities within the realms of enrichment or acceleration or a combination of both.

IV. 2.4. Explore enrichment

Sometimes I tell them to bring a book in English and I let them read in their spare time. Sometimes I also tell them to do the exercise that comes after the one we are doing. And then the next one and the next one and the next one and so on. But there are no different strategies, just a book. (Teacher I)

The work is the same. What I do is, I have lots of small books in English with stories and if he finishes it I can give him one so he can stay there and read it because that is what he likes, he loves to read – really huge books and everything. But the rest is the same. (Teacher O)

Giving gifted students more of the same is not friendly gifted practice. The high ability do not need more of the same. Rewarding students for having finished faster by giving them similar worksheets or systematically asking them to read a book with no further goals is not challenging; it is not providing real learning experiences. The aim should be to allow opportunities for quality learning as opposed to an increase in quantity.

One possibility of challenging gifted learners within the class time is to carry out enrichment. Enrichment activities mean students develop a topic in more depth or breadth and/or complexity than their peers. Unlike acceleration, it does not involve going at a faster pace although both are an optimal mix for some learners. Enrichment can also refer to rich educational experiences outside of school such as field trips and

academic competitions (Davis & Rimm, 2004; Feng et al., 2004). In the classroom, one way of enriching work is to provide differentiated reading instruction.

IV. 2.4.1. Reading Instruction

Taking into account the numerous research that indicates that gifted and talented students read at a level which is one to three years ahead of same-aged peers, using the same reading material for the whole class can be said to be an insensitive approach towards the diversity within a classroom. Highly engaging literature both in terms of personal and societal issues as well as culturally relevant material can be highly motivating for gifted learners. Open-ended discussions which stimulate complex thought and intelligent experiences can be further promoted based on literature. This strategy is further elaborated upon in this chapter.

IV. 2.4.2. Independent study

When gifted students are asked about what they enjoy most in class their response usually includes the freedom to select topics of study. Teacher M experienced this with her 10th grade gifted student, who became enthusiastic about developing her own project that stemmed from a topic being given in class:

.... the topic was related with the evolution of women and I brought a story that talked about women and their various struggles and M loves those topics. And she enjoyed that class so much that we later talked about the suffragettes and Humanism. She decided to prepare a presentation related to this topic. (Teacher M)

However, participants that took part in this study reported providing time for self-selected interests between once a term and once a month. Observations carried out demonstrated that when teachers provided independent or group learning to promote depth in understanding content, this was carried out ineffectively to somewhat effectively. Independent studies have many advantages (Chuska, 2005); it takes students

beyond the class textbooks and course aims, it involves students' intrinsic motivation, reduces boredom and besides promoting autonomous work habits it also encourages the idea that initiative is rewarded.

A word of caution by Clark (2002) in reminding teachers that although gifted learners are curious and highly motivated, they are not equipped with the set of skills needed to successfully accomplish objectives on their own. Skills such as reaching conclusions, using appropriate methodologies, organizing and evaluating material need to be taught. Parke (1989) suggests (1) limiting the parameters of the topic of study to allow for students to explore the topic of interest but not become overwhelmed with the information available on it; (2) writing out a form altogether with the student to formulate the questions that need answering such as the topic to be studied, the questions to be answered and the research methodologies to be used and the manner in which it will be presented. It is also important to (3) limit the time of the project so that it does not go on indefinitely. A good rule of thumb would be to increase time frames and levels of complexity in accordance with age. With individual children these can be increased gradually over the course of the year. Another recommendation involves (4) supporting students in developing a strategy in how to access research and what resources to use need explicit planning. Another practical guideline involves encouraging creativity in the manner in which the product will be demonstrated.

IV. 2.4.3. Tiered activities

Tiered instruction is a differentiation strategy that involves developing one concept but meeting the various abilities within a classroom. Students do this by working on the same essential objective but via different pathways involving varying levels of complexity, abstractness and open-endedness. Tiering can be based on student readiness, ability or interest. Additionally, this instructional method can be used for a lesson, assignment or a strategy. The number of tiers can also depend on the lesson. Teachers vary instruction, design lessons and assess based on the student. Despite teachers reporting to modify the instructional format and giving differentiated homework based on ability a little less than once a month (as demonstrated by the Adapted CPQ), tiering can take place in various ways, all of which can benefit the whole class and can maximise learning for the high ability (Heacox, 2002).

Tiering at the challenge level: Here teachers might opt to get students to develop different assignments altogether. Bloom's Taxonomy can be used to provide the various levels of challenge required.

In one of the observations carried out, a teacher exemplified this by using the same short story for the whole class and then catering students' needs in the following manner: For Tier 1 students, the teacher requested for them to show their understanding of the text by summarizing the story in their own words. The following tier encouraged writing the story from a different point of view. Hence students were requested to apply what they had understood from the short story. The third tier, demanding further higher order thinking skills involved writing another ending to the story. Although the teacher prepared for three tiers, another was created as a student seemed enthused about altering the story by adding a superhero. The teacher embraced this suggestion and two other students chose to work with this idea. This meant the students were combining, creating and producing a different text, all of which are recommended practices for the gifted and talented.

Tiering at the complexity level: This requires challenging appropriately from introductory to more abstract and less concrete tasks (Heacox, 2002).

In an 11th grade class, after reading a textbook article on global warming, students were requested to either (1) write a slogan about the effects of global warming and what people can do about it; (2) design questions based on peer awareness of the topic and present it with via an infograph; or (3) prepare for a debate on the gravity of global warming with expressions of different viewpoints. This last task is a more open-ended task which allows students of the highly able to exert their independence.

Tiering at the process level: Students are requested to work towards the same outcome but via different processes.

In one of the observed classes, a teacher differentiated by tiering on the topic of explorers. Students read about Sir Francis Drake and were then requested to develop the following depending on their abilities: (1) think about the qualities of various explorers; (2) use a Venn diagram to compare and contrast two or three known explorers; (3) rank five explorers from most to least important. This

range of processes allows engagement at varying levels while working towards the same end result.

Tiering at the product level: Teachers accommodate students by providing for different learning styles. For example, students may choose to act out a part from a story (kinaesthetic-bodily intelligence), create a song based on the main issues (musical intelligence) or even draw a cartoon based on the social dilemmas being represented (visual intelligence).

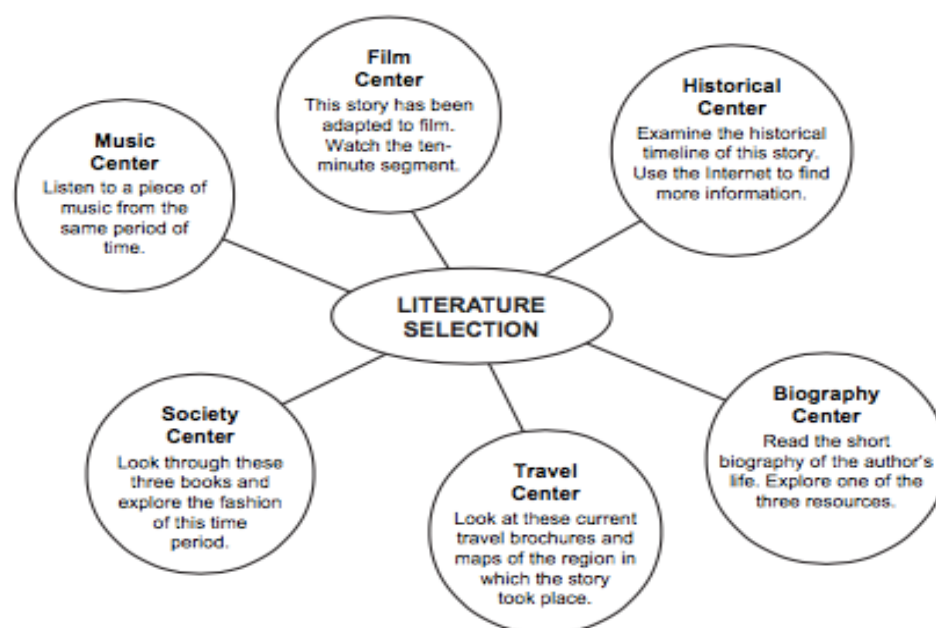
In one of the classes visited where a teacher had been working on *The Secret Diary of Adrian Mole aged 13 ¾*, an accelerated and gifted student with a particular aptitude for foreign languages (linguistic intelligence) wrote a eulogy for one of the characters. This was a highly gratifying experience for the learner who was able to adopt the humorous writing and visions portrayed through Adrian Mole's eyes.

Tiering at the resources level: This is a relatively practical approach to tiering where students can be given different levels of reading in terms of complexity. Students can be asked to read different books based on abilities or utilise different resources to answer the same core questions.

For example, while developing the topic of food, a teacher differentiated by providing tiers that ranged (i) from finding out what breakfast is eaten in different countries from the class textbook; (ii) from bookmarked websites and the task directed towards the highly able involved finding this information by (iii) interviewing teachers and colleagues with different cultural heritages.

Another example involves setting up different learning centres with resources that are authentic and pertinent to the literature being studied. See Figure 45 below.

There are six learning centers that will help you gain perspective into the piece of literature that we are reading in class. Examine the choices and visit four of the centers that interest you. Do the assigned activity for each center you choose, and fill in your self-reflection log. After everyone has completed the center activities within the time frame, you will be assigned to groups of three to discuss your findings and how this background knowledge is helping you better understand the piece of literature.



Self-Reflection Log

As you visit each center, respond to the following in the target language (only for the centers visited).

- **Music Center:** In three sentences describe how the music of this period sets the mood of the story. Include your impressions of the music and your reactions to the music.
- **Film Center:** In three sentences explain how this film segment helps you better understand the story. Include your observation of how that segment does or does not reflect the section you have already read.
- **History Center:** Identify three historical events that took place during this time period and tell how they might have impacted the author. You may include historical events such as discoveries, major events, famous people, scientific findings, etc. You may also identify other information you found on the Internet. Use a graphic organizer to represent your findings.
- **Society Corner:** In three sentences describe some of the clothing items and tell how they help you visualize the setting of the story. Draw one of the clothing items that most impressed you.
- **Travel Center:** If you were to visit this region, list three places you would go to and tell how they might influence your understanding of the story.
- **Biography Center:** Select three events in the life of the author and imagine how they may have influenced this story.

Figure 45. Learning Centers for Exploring Literature (Thiesen, 2002, p.3)

Besides a manner in which to provide depth, tiering at the resource level can also encourage teachers to promote movement within the classroom, which was reported by the teachers to be carried out less than once a month. Tiering can be a particularly useful strategy for students who are high ability as they allow students to produce ideas, encourage metacognition, develop projects in their own areas of interest and foster higher order thinking skills.

IV. 2.5. Use measures of acceleration

When teachers are familiar with the concept of acceleration, it is usually associated to whole grade acceleration, meaning a student is placed ahead of their chronological age peers. However, accelerative measures can take many forms which can then be modified for the needs of the individual students (Colangelo et al., 2004). When other measures such as enrichment, flexible grouping and other alternative interventions seem insufficient, acceleration should be considered. Here, focus will be placed on the more relevant ones for the regular classroom.

IV. 2.5.1. Subject-matter/partial acceleration

If a student is assessed at the beginning of the year and demonstrates mastery of the material, single subject acceleration is a possible option (DeLacy, 1996). In this format students are placed in classes with older students for part of the day in one or more content areas. Students can then either physically move to another class or they use higher curriculum materials within their original classrooms. The data obtained from the Adapted CPQ demonstrated that students were almost never sent to a higher grade level and were given the opportunity to work from a higher level textbook less than once a term.

IV. 2.5.2. Telescoping

Telescoping involves shortening the amount of time taken to cover the curriculum. As gifted learners do not need as much time to learn and remember the topics, this method allows for rapid mastery and helps them feel good about themselves e.g., completing a two year English curriculum in one (DeLacy, 1996).

Although research studies have shown high levels of effectiveness, practitioners seem to be reluctant advocates of acceleration measures (Colangelo & Davis, 2003; DeLacy, 1996). Borland (1989) shares his bewilderment in the following quote:

Acceleration is one of the most curious phenomena in the field of education. I can think of no other issue in which there is such a gulf between what research has revealed and what most practitioners believe. The research on acceleration is so uniformly positive, the benefits of

appropriate acceleration so unequivocal, that it is difficult to see how an educator could oppose it (Borland, 1989 p. 185).

It is important to clarify any doubts about specific misconceptions. The first myth that needs to be brought to the fore is that if students commence work with older age peers they will become social and emotional misfits. There is no research base evidence for this statement. In fact, if made to socialise with same aged peers in a lower level curriculum, students may demonstrate withdrawal (Kulik & Kulik, 1984). Remaining with the same age peers will not eventually help them fall into lockstep with others in cognitive terms either. Indeed, this may lead to patterns of underachievement, refusal to engage in work and lack of motivation (Gallagher & Gallagher, 1994). For many gifted learners, acceleration provides a better maturity match than non-accelerated peers (Colangelo et al., 2004).

Another myth revolves around the idea of acceleration strategies causing gaps in one's knowledge. Students are only accelerated once their assessments reveal that they are ahead of their age-peers in terms of their academic knowledge and development. Most gifted students have mastered approximately 40%–50% of the content at the beginning of the school year (Reis & Renzulli, 2005). These gaps are non-existent as gifted learners learn more rapidly than same-aged peers (Colangelo et al., 2004).

IV. 2.6. Refrain from making gifted learners your class assistants

When ability grouping, acceleration and enrichment practices are not utilised as gifted-friendly practices within a mainstream classroom, it is only tempting for teachers to use their brightest and most able students as class helpers. Given that gifted students show mastery of at least half of the curriculum even before the year begins (Winebrenner, 2000), they are often requested to run errands and tutor their classmates once they have completed their assigned work (Kearney, 1996).

This collaboration and exchange can be beneficial although inappropriate when carried out consistently. Educators have argued that this practice does not harm end of year scores but as Tomlinson (1999) puts, this only makes one wonder how much thriving these students could have experienced if challenged appropriately. Kearney recommends that a more reasonable and ethical approach to using gifted learners as

helpers is to equate it to the amount that all other students are requested to be class helpers. As all students, gifted learners need daily challenge which can be provided with differing forms of complexity, advanced content, depth and pace. Otherwise, respect for work, continuous effort and habits of steady work may be undermined. Researchers have also underlined that the lack of appropriate differentiation may lead to a lack of motivation, loss of potential and affective harm.

IV. 2.7. Foster higher level thinking processes

Higher level thinking is the hallmark of gifted education (Robinson et al., 2007). Teacher K makes an observation about the gifted student in his class:

I would say that they have the ability to see structures and to make connections fast and therefore remember them much faster. They are able, from what I learnt from V, to construct knowledge and reconstruct it with the information she has (within her) and is able to present it.
(Teacher K)

Experts in the field recommend more complexity and abstract concept/theme/issue-based curriculum, in depth-investigations, decision-making, reflection and understanding of the self and own learning strategies (VanTassel-Baska, 1996; VanTassel-Baska & Wood, 2010). Learning can take place as rote learning with limited transference, recall of facts and overly teacher-led, confined forms of output/production. It can involve a simple, robotic restatement of the facts. This kind of thinking goes against learning for all learners (Zohar & Dori, 2003). Higher order thinking or higher level thinking on the other hand takes thinking to higher levels than the restatement of facts. It involves understanding them, making inferences and connections with them, categorising them and then manipulating them and seeking to put them together in innovative ways as novel solutions to novel problems (Thomas & Thorne, 2009). Higher level or higher order thinking involves the process of application, analysis, synthesis and evaluation (Bloom, 1956).

Why do we need these skills? First of all they promote processing information in our long term memories, making the information easier to retain. Teachers appreciate and understand the difference between memorizing the definition of a new word and

internalizing strategies to extricate a possible definition of the word from its context. Higher order thinking also makes information easily transferable to novel, real-life situations (Shore & Kanevsky, 1993). If students can write a persuasive essay, can they write to their politicians arguing policies or (in the future) their children's school principle on discriminatory behaviours?

Teachers mould children's thinking through effective instruction and classroom climate. VanTassel-Baska (2003a,b) underlines the importance of higher order thinking in teaching the gifted and asks educators to reflect on what is done and is not being done in the classroom in order to meet their needs. Thomas & Thorne (2009) suggest the following teacher-friendly tips to enhance higher cognitive thinking:

IV. 2.7.1. Take the mystery away

Teacher should teach students about HOTS (Higher Order Thinking Skills) and discuss their strengths and weaknesses with them. Explicitly planning classes to teach critical thinking or creative thinking can be included; teachers in this study reported thinking skills explicitly a little less frequently than once a month. It is important for students to understand that learning how to think is just as important as the learning of content.

IV. 2.7.2. Connect concepts

It is vital for students to connect newly taught concepts to concepts they already know. This can be done via classifying, categorising, recognising patterns and chaining. A student that is learning about Halloween, links it to the theme of Holidays which in turn is connected to the more inclusive, wider topic of Celebrations. There are celebrations, however, that are not holidays such as weddings, birthdays etc. Students are then making the separation within the topic of Celebrations in that some are holidays and others are not. Constant practice of concept connection will help students build a strong knowledge and conceptual base from which to develop connections (VanTassel-Baska, 1998).

IV. 2.7.3. Categorise concepts

Guiding students in categorising concepts such as concrete, abstract, verbal, nonverbal or process is important. This will help align their thinking to prioritise understanding over memorizing (Chinedu, Olabiyi & Kamin, 2015).

IV. 2.7.4. Go back and forth from abstract to concrete and back again

Abstract concepts are harder to understand and so experiencing them or comparing them to something we know is a useful technique. Chinedu et al. (2015) suggest that in this manner students can make inferences, deepen understanding, compare and contrast and progress towards problem solving. In the present study, teachers were only rarely observed providing opportunities for students to generalise from concrete data to the abstract.

IV. 2.7.5. Draw inferences

After having read three letters of children that were in the concentration camps, what can you infer? Inferring refers to making useful connection from a set of facts or circumstances.

IV. 2.7.6. Teach question-answer relationships

Raphael (1986) coined this term to express the type of question being asked and to aid students in answering questions. Students learn that (1) questions can be answered with information from the text or (2) by putting together information that is available on the text or (3) a combination of what the author is telling us and what we know or (4) on their own. These questions shed light on the question type and the information needed and relates it to prior knowledge which in turn helps them decipher and guides students to a more efficient manner of achieving the response.

IV. 2.7.7. Encourage visual imagery

Thomas and Thorne (2009) advocate the usage of visual imagery to enhance HOTS. When students read a story, they often visualise the characters and the plot. A lot of meaningful learning takes place via visualisation.

IV. 2.7.8. Make mind movies

This technique helps students grasp complex and detailed concepts such as these that may be found in a classic novel. Ask students to close their eyes and transform listening to a story into a movie in their minds.

IV. 2.7.9. Don't dismiss the power of brainstorming

This can be done individually and in groups and involves generating as many ideas as possible. In a group setting, students can build on each other's ideas or even modify them until they reach a consensus. In this process of brainstorming, students are analysing, evaluating and creating, all of which are characteristics of higher order thinking. This strategy, as obtained from the observations, was found to be implemented mostly ineffectively.

IV. 2.7.10. Teach concept mapping

Use conceptual mapping by drawing diagrams of a concept and its main features as well as its link to other concepts. Thomas and Thorne (2009) encourage the habit of mapping after completion of a chapter or unit. Graphic organisers and other diagrams can also be useful for students.

IV. 2.7.11. Encourage questioning and elaboration of answers

While there are endless tasks that the teacher is accountable for, fostering a question-friendly environment is fundamental. It is important to respect children by listening to them, by being non-judgemental, allowing them appropriate time and space for voicing their thoughts and questions. Teachers in the study were found to encourage students to express their thoughts somewhat effectively and self-reported encouraging student participation in discussions as often as twice a month. Robinson et al., (2007) suggest for teachers to become aware of their interaction patterns with students by recording or filming themselves for self-analysis and professional improvement. If there is a lack of time, use the technique of a parking lot where students can write their questions on a post-it and "park" the question. The teacher can then develop the question when there is time or can be used as an idea for an enrichment activity or an independent study project for the gifted.

Additionally, ask students to elaborate on their answers and to justify the thoughts behind their reasoning. This kind of critical thinking can be developed using Socratic questions (adapted from Paul & Elder, 2007):

- A. Questions of clarification: What do you mean by that? Can you give me an example?
- B. Questions that probe assumptions: What are the assumptions underpinning these thoughts?
- C. Questions that probe reason and evidence: What are your reasons for saying that? What is the criteria you have used?
- D. Questions that probe implications and consequences: What might be the consequences of behaving like that? Is there a possibility you are jumping to conclusions?
- E. Questions about viewpoints or perspectives: What would be another way of saying that? How do your viewpoints differ?
- F. Questions about the question: In which manner is that question going to help us? What other questions might be useful?

IV. 2.7.12. Actively teach metacognition

This requires developing skills in mental self-management and encourages students to increase awareness of their own strengths and weaknesses. This is elaborated upon further in a later section.

IV. 2.7.13. Explicitly reward thinking

Encourage and reward out-of-the box thinking. Explicitly reward students for thinking, brainstorming, reflecting, comparing and contrasting and critically questioning information that you provide to them (Robinson et al., 2007).

They go deeper. They just don't content themselves with all this "oh this is the rule I have to learn". They go further - they want to know why. For example, I usually say to them that French is the language of exceptions, not the one of rules because for every rule there's a hundred exceptions, and they (the gifted learners) often ask me, "But if this is a rule and there are a bunch of exceptions afterwards, why do we learn the rule?" and this is a question that normally no one asks. (Teacher M)

A positive attitude to situations such as the above will ensure students feel encouraged to share their thoughts and queries and will reinforce the significance of HOTS in learning.

IV. 2.7.14. Use metaphors, similes and analogies

When students create a metaphor, they demonstrate having understood the subject matter in depth, are able to evaluate matters and problem-solve with more ease. This form of concept connection is of higher level thinking and is discussed further in a later section.

IV. 2.7.15. Create problem-solving exercises

Prepare word puzzles, brainteasers and other problem-solving exercises. These exercises are not time-fillers, yet the data from the Adapted CPQ demonstrated that this strategy was used less than once a month. These engage students in critical and creative thinking and can also be used for practicing, revising and introducing novel work. An educator named Nicole Naditz has taken this to a whole new level by creating Educational Escape Rooms (<https://www.theatlantic.com/education/archive/2016/07/the-rise-of-educational-escape-rooms/493316/>). For instance, an adaptation for the EFL classroom could involve a narrative in where a character has been kidnapped and her robot has been reprogrammed to destroy a hospital. In this narrative, the students might be learning the various buildings and amenities around a city. In order to save her, they need to activate the kill switch inside a box which can only be accessed after discovering the keys to four padlocks. These keys need deciphering and can be language or grammar based puzzles or questions. Students work in small teams to decode these leads and save her before the robot goes off. They are given 45 minutes. Activities such as these are fun, curiosity-driven and highly engaging for gifted learners.

Although it is true that professional development opportunities need to be provided, teachers can and should reflect on their own practices by not only teaching students about higher order thinking but by engaging them in thinking by embedding this throughout their teaching activities. When these activities involve higher order thinking and result in the creation of intelligent problem solving, educators are

supporting the need of the gifted by developing their unique abilities. The recollection of factual information is of no use when one cannot analyse, evaluate and generate new ideas (Robinson et al., 2007).

IV. 2.8. Encourage (not discourage) higher order thinking when answering questions

Gifted children are intensely curious and are naturals at asking questions. Questioning is essential for thinking, decision-making and problem solving and it is the cornerstone of a community of inquiry. These help to:

- extend thinking skills
- clarify understanding
- gain feedback on teaching/learning
- provide revision methods and strategies
- create links between ideas
- enhance curiosity
- provide challenges

(Pearce, 2004).

Sternberg (1994) states that the way in which parents and teachers answer students' questions impacts processes of reflection, critical thinking, creativity as well as motivation. The researcher goes on further to state that an essential part of intelligence is to ask questions and the processes involved in answering them. Teacher B makes a pertinent observation about her gifted students:

They pick up on things very quickly and are able to reproduce or apply these in different situations. Sometimes these students stay behind, ask questions that often surprise us and make us think. They go beyond what is expected, I think, and have this natural curiosity. (Teacher B)

Sternberg (1994) encourages fostering and not stifling students' questioning through encouraging teachers to apply questions between levels four to six (see below)

despite all questions having a purpose and place in learning and teaching. The following types of possible questions have been listed by Thomas and Thorne (2009) and are useful for teachers who are striving towards an inclusive classroom climate for gifted learners.

Table 87

Striving towards better questioning for an inclusive classroom (Thomas & Thorne, 2009
<http://www.cdl.org/articles/how-to-increase-high-order-thinking/>)

Level 1: Discard the question

Example:

"Why must I do my homework?"

"Don't ask me any more questions." "Because I said so."

Level 2: Repeat or almost repeat the question as a response

Example:

"Why must I do my homework?"

"Because you have to do your homework."

"Why is he working on something different?"

"Because he's working on something different."

"Why is it so cold?"

"Because it's 15° outside."

Level 3: Admit ignorance or present information

Example:

"I don't know, but that's a good question."

Or, give a factual answer to the question.

Level 4: Show encouragement to discover the answer through authority

Example:

"Let's look that up on the internet."

"Let's look that up in the encyclopedia."

"Who do we know that might know the answer to that?"

Level 5: Encourage brainstorming, or possibility of alternative explanations

Example:

"Why are all the people in the USA so tall?"

"Let's brainstorm some possible answers."

"Maybe it's genetics, or maybe it's diet, or maybe everybody in the USA wears elevator shoes, or..." etc.

Thomas & Thorne (2009) highlight that all ideas are valid when brainstorming. Subsequently decisions about which are to be discarded can be decided.

Level 6: Encourage consideration of alternative explanations and a way of evaluating them

Example:

"Now how are we going to evaluate the possible answer of genetics? Where would we find that information? Information on diet?"

The number of elevator shoes sold in USA?"

Level 7: Encourage consideration of alternative explanations plus a means of evaluating them, and follow-through on evaluations

Example:

"Okay, let's go find the information for a few days — we'll search through the encyclopedia and the Internet, make telephone calls, conduct interviews, and other things. Then we will get back together next week and evaluate our findings."

The above can be carried out as homework, as enrichment activities or as independent projects when curriculum has been compacted and additional time can be found.

IV. 2.9. Embrace Bloom's taxonomy for phrasing questions and assigning student products

Higher order thinking skills can be encouraged with the use of higher order questioning. Higher order questioning has shown to increase literacy levels (Taylor et al., 2000) and results in more language production than lower-order questions (Shamoosi, 2004). Data from the Adapted CPQ as well as the interviews suggested that teachers often resort to questioning techniques as a form of differentiation; whilst the self-report survey indicated that teachers provide questions that encourage reasoning and logical thinking and ask open-ended questions approximately twice a month, it was one of the most frequently used strategies as gathered from the semi-structured interviews. However, the observed data demonstrated that judging, evaluating, comparing and contrasting was carried out ineffectively and at times somewhat effectively. The kind of questions asked need to be re-evaluated.

One method of securing differentiation and challenging thinking processes is to offer a range of hierarchical engagements using one main topic or text. As an educator we have all probably studied Bloom's Taxonomy (1956) but it is important to relearn and apply its principles in a more deliberate manner if we aim to support our highly able. Benjamin Bloom (1956) created a taxonomy comprising of six levels of thinking. This categorisation is often perceived as "low level" (knowledge, comprehension and application) to "high level" (analysis, synthesis and evaluation). Rote learning is an example of low level thinking where students might be asked to explain who, what, where and why type of questions while at the higher levels of thinking students are asked how they might have handled a situation differently or evaluate a newspaper article on the topic being studied. It is these kind of higher level activities that need to be developed by the teacher with students that are gifted. In a slightly adapted version of Bloom's Taxonomy (Figure 46), verbs were added as well as possible outcomes for each of the levels.

THE *NEW BLOOM'S TAXONOMY & FOREIGN LANGUAGE INSTRUCTION**

GOOD COMPREHENSIBLE INPUT-BASED SECOND LANGUAGE TEACHING USES ALL OF THESE LEVELS OF THINKING
We can encourage students to think at high levels even in beginning courses.

Level of Thinking	Key Question / Verb Examples	Examples of Comprehensible Input-Based Activities
1. REMEMBER <i>(lowest level)</i> <i>Retrieving, recognizing, and recalling relevant knowledge from long-term memory.</i>	Can the student recall or remember the information? arrange, define, label, list, match, memorize, name, order, recall, recognize, repeat, reproduce, restate, state	*Answer questions that begin with who, what, when, where (if the answer is explicitly given in a story) *Match characters to action/dialogue *Information gap questions *True-False, Either/Or statements *Match L2 vocabulary to English
2. UNDERSTAND <i>Constructing meaning from oral, written, and graphic messages.</i>	Can the student explain ideas or concepts? classify, compare, describe, discuss, explain, express, give examples, give main idea, infer, interpret, paraphrase, report, review, select, summarize, translate	*Summarize a story in own words *Restate main idea of story *Explain why a character in a story does/says something (when answer was stated in story) *Describe a person/place in the story *Translate text aloud to English
3. APPLY <i>Carrying out or using a procedure.</i>	Can the student use the information in a new way? apply, choose, demonstrate, dramatize, execute, illustrate, implement, interpret, outline, point out, role play, show, sketch, solve, use	*Act out novel commands *Rewrite a story from a different point of view (POV) *Act out a story *Draw a story
4. ANALYZE <i>Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose.</i>	Can the student distinguish between the different parts? analyze, appraise, attribute, break down, calculate, categorize, compare, contrast, differentiate, , discriminate, dissect, distinguish, examine, organize, question, test	*Answer <i>why</i> or <i>open-ended</i> questions (when answer is indirectly stated or implied in a story) *Break down the main actions of the story *Use a VENN diagram to compare and contrast (characters, situations, countries, cultures, schools, etc.)
5. EVALUATE <i>Making judgments based on criteria and standards.</i>	Can the student justify a stand or decision? argue, appraise, assess critique, check, conclude, compare, criticize, defend, estimate, evaluate, judge, justify, predict, rate, select, support, value	*Evaluate appropriate/inappropriate actions of characters *Compare cultures *Predict what will happen next *Make inferences
6. DESIGN <i>(highest level)</i> <i>Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern.</i>	Can the student create a new product or point of view? assemble, combine, compile, compose, create, construct, design, develop, devise, formulate, generate, invent, organize, plan, prepare, produce, propose, reconstruct, revise, rewrite, write	*Create and give novel commands *Write an original story *Compose a class story *Invent new details for a story *Generate / invent answers to hypothetical questions *Rewrite a story adding details &/or characters that were not in the original

* Alan Bloom's classic 1956 learning taxonomy was revised and refined by Lorin Anderson and David Krathwohl in 2000.

Figure 46. Bloom's Taxonomy & Foreign Language Instruction
(<http://www.brycedstrom.com>)

Below is a list of stem questions (Figure 47) that can be used to develop each of the levels in Bloom's Taxonomy (1956).

Lower-Order Thinking Skills	Higher-Order Thinking Skills
1. REMEMBERING • What is ...? • How is ...? • Where is ...? • When did _____ happen? • How did _____ happen? • How would you explain ...? • How would you describe ...? • What do you recall ...? • How would you show ...? • Who (what) were the main ...? • What are three ...? • What is the definition of...?	4. ANALYZING • What are the parts or features of ...? • How is _____ related to ...? • Why do you think ...? • What is the theme ...? • What motive is there ...? • What conclusions can you draw ...? • How would you classify ...? • How can you identify the different parts ...? • What evidence can you find ...? • What is the relationship between ...? • How can you make a distinction between ...? • What is the function of ...? • What ideas justify ...?
2. UNDERSTANDING • How would you classify the type of ...? • How would you compare ...? contrast ...? • How would you rephrase the meaning ...? • What facts or ideas show ...? • What is the main idea of ...? • Which statements support ...? • How can you explain what is meant ...? • What can you say about ...? • Which is the best answer ...? • How would you summarize ...?	5. EVALUATING • Why do you agree with the actions? The outcomes? • What is your opinion of ...? • How would you prove ...? disprove ...? • How can you assess the value or importance of ...? • What would you recommend ...? • How would you rate or evaluate the ...? • What choice would you have made ...? • How would you prioritize ...? • What details would you use to support the view ...? • Why was it better than ...?
3. APPLYING • How would you use ...? • What examples can you find to ...? • How would you solve _____ using what you have learned ...? • How would you organize _____ to show ...? • How would you show your understanding of ...? • What approach would you use to ...? • How would you apply what you learned to develop ...? • What other way would you plan to ...? • What would result if ...? • How can you make use of the facts to ...? • What elements would you choose to change ...? • What facts would you select to show ...? • What questions would you ask in an interview with ...?	6. CREATING • What changes would you make to solve ...? • How would you improve ...? • What would happen if ...? • How can you elaborate on the reason ...? • What alternative can you propose ...? • How can you invent ...? • How would you adapt _____ to create a different ...? • How could you change (modify) the plot (plan) ...? • What could be done to minimize (maximize) ...? • What way would you design ...? • What could be combined to improve (change) ...? • How would you test or formulate a theory for ...? • What would you predict as the outcome of ...? • How can a model be constructed that would change ...? • What is an original way for the ...?

Public Consulting Group's Center for Resource Management, in partnership with the Council of Chief State School Officers (August 2007)

Figure 47. Cue Questions Based on Blooms' Taxonomy of Critical Thinking
(http://www.saydel.k12.ia.us/cms_files/resources/general%20CCSSO%20Que%20Questions.pdf)

Students can be challenged by being provided choices that demand products based on differing levels of complexity. Choice boards (as shown in Figure 48) can easily be adapted across subjects and themes and help cater for choice of readiness, interests and preferences. It can also be adapted to differentiate using outcomes that stem from Bloom's Taxonomy. This one in particular offers choices based on Romeo and Juliet.

Take one of the quick writes we did this nine-weeks (the one about the movie, the one about faking your death, or the story about standing up for something) and polish it into a strong final draft worthy of publishing.	Write a song, poem, or rap of at least 20 lines which conveys both the theme and major plot points of one act of Romeo and Juliet.	Using some media, link themes in Romeo and Juliet to events going on in the world today. Be deep, thoughtful, and thorough.
Create a poster of a public figure and his/her parallels to a character from Romeo and Juliet. Be deep, thoughtful, and thorough.	Free Space Use another space on this sheet or come to me with your own idea.	Design the set of a single scene of Romeo and Juliet, including act and scene number, entry and exit points, and who is in the scene; or a character's costume, including when in the play it would be worn, by whom, and color choices.
Write three entries from a character's journal. Each must be at least half a page, and appropriately represent the character's state of mind in the chosen scene.	Compare Romeo and Juliet to another play, book, or film using some media—PowerPoint, Prezi, Glogster, a paper, or some other form. Be deep, thoughtful, and thorough	Interview one of the characters from the play. Write five questions focusing primarily on actions, choices, and relationships, and the answers the character would give.

Figure 48. A choice board that allows for Bloom's Taxonomy to be applied to Romeo and Juliet (Muire, 2013)

In short, in a gifted friendly classroom, teachers should aim to work less at the knowledge and comprehension levels and more at the analysis, synthesis, evaluation and design levels by posing appropriate questions and levelled tasks.

IV. 2.10. Enhance critical thinking through metacognition

Do any of the questions below resonate with dialogues between you and your students?

- Think out loud for me.
- Tell me about the strategies you are employing.
- What are some things you will have to think about before beginning this?
- When did you start having problems comprehending?
- What was it that confused your thought process?
- How did you come up with that idea?

(adapted from Fertig, 2004).

These kind of questions probe metacognitive thinking processes which is a characteristic of a gifted learner (Cheng, 1993; Rogers, 1986) and play a key role in the resolution of difficult tasks. Metacognition means thinking about thinking and knowing about knowing. The root word “meta” means beyond. There are two parts to metacognition. The first one highlights the importance for a person to understand one’s own strengths and weaknesses. Is a student good at understanding concepts, generating solutions or following directions? Is a person more creative or practical in one’s thinking? How does one learn best (Heng, 1994)? The second part of metacognition is monitoring and regulating how one thinks and learns. How does one memorise the lexis better? By writing the words and definitions? Or by contextualizing them in personalised sentences? Understanding the manner in which students learn and understand better equip them to have stronger and more effective learning experiences.

Gifted learners demonstrate more precision in the identification of problems to be solved and have more ease in providing solutions and monitoring their effectiveness (Rogers, 1986). Moreover, a meta-analysis of 91 studies, carried out by Wang, Heartel, and Walberg (1993) showed that metacognition is a fundamental characteristic of high academic achievers and has been ranked 15th out of 150 factors that influence student achievement (Hattie, 2012). Despite this evidence, it is not a staple instructional tool.

Teachers can embrace metacognitive skills by doing the following (Blakey & Spence, 1990):

IV. 2.10.1. Introduce the terminology and use it

Experts suggest explicitly teaching the term and introducing the idea that it is a vehicle that guides us to the answers we come up with (Lai, 2011). By understanding and managing this vehicle, we can decide on more efficient and successful roads to reach objectives.

IV. 2.10.2. Think out loud

While planning and in problem-solving situations teachers should model thinking processes. While thinking about the meaning of a new word, a teacher should aim to verbalise the thought process. This modelling can help develop the vocabulary to describe thinking and facilitates the usage of these methods when student-led group work is being carried out. Another useful strategy is paired problem-solving where a student talks through a problem and describes his/her thinking processes while the partner actively listens and asks questions for clarification.

IV. 2.10.3. Help students plan, monitor and evaluate their learning

Requesting students to consciously write out what they know and don't know at the beginning of each activity (by completing sentences such as "I already know that..." and "I would like to understand how...") will encourage more awareness, expansion, more tangible progress and more accuracy of metacognitive language throughout time. During a task, students can be encouraged to monitor their work by reflecting on whether or not they are on the right track and if any changes need to be made. At this stage it is also important to understand where one should go to for help. After completion of an activity students can evaluate their product by considering what aspects went well, which require changes and if the learning can be transferred to other situations. These questions have been summarised below.

Before a Task

- Is this similar to a previous task?
- What do I want to achieve?
- What should I do first?

During a Task

- Am I on the right track?
- What can I do differently?
- Who can I ask for help?

After a Task

- What worked well?
- What could I have done better?
- Can I apply this to other situations?

(<https://blog.innerdrive.co.uk/9-questions-to-improve-metacognition>)

IV. 2.10.4. Keeping a thinking journal

This one may seem difficult to implement but a teacher that was both observed and interviewed demonstrated how she applied the idea of a thinking journal for her eleventh graders. Although there are multiple goals that can be developed by writing a learning log, it is clear from the entries below that it encourages the beginnings of reflection about the processes that are more beneficial than others and what difficulties, inconsistencies and doubts are encountered in the student's individual process of learning.

"I didn't like it at all. It was really hard to understand the message, due to the fact that the video was trying to explain all the pros of GMOs. However, this was a one minute explanation. Therefore, I didn't understand almost anything, but after talking about it, it was much easier to understand the message.....

While we were reading the text, we analysed it carefully individually and we collected the information that we thought was important, because

after reading it we were going to debate and argue the articles that we had just read. Even though the theme was a bit hard to develop, the debate was very interesting. We approached the topics described in both texts and I think that nobody won. Rather than winning the debate, we all learned something from each other's points of view” (Diary entry written by an eleventh grader, provided by Teacher N)

Here is a quote that summarises the significance of metacognition:

In teaching me independence of thought, they had given the greatest gift an adult can give to a child besides love, and they have given me that also (Courtenay, 1989, p.326).

IV. 2.11. Enhance creativity through synectics

It was through a metaphor of riding a beam through the universe that led Einstein to construct his theory of relativity. Winner (1997) explains that “that “metaphor” is at the root of creativity and openness of language” (p.16). The advanced metalinguistic capabilities of gifted children and their flexibility of thinking enables them to understand the symbolism of metaphor and analogies at a younger age (Fraser, 2003). Teachers were observed to provide opportunities for students to demonstrate open-mindedness and tolerance of imaginative, sometimes playful situations to problems somewhat effectively at times and other times ineffectively.

This facility, which gifted learners demonstrate, in the bringing together of apparently unrelated elements is referred to as synectics. It is in the forging together of new information to information that we already know that leads to learning. For example, when the first automobiles came out they made sense to people as they were described as “horseless carriages”. This activation of prior knowledge to aid students in making sense of new knowledge is the basis of good teaching. Even more interestingly, researchers explain that creative insight can be borne out of unexpected and unusual connections: It was after comparing the heart to a pump that William Harvey discovered that blood circulates. In other words, the joining together of seemingly unrelated concepts can lead to insights which may be potential solutions to problems (Weaver &

Prince, 1990). It is also this kind of analogous thinking, in where the observation of wet leaves falling and not crumbling like dry leaves that led to the potatoes for Pringles to be sliced wet and then diced. It is these kind of synectic methods that are used by think tanks, research groups and inventors and have been the reason behind many modern creations.

The grasping of ideas and the creation of new ones are contingent upon the comparison of similarities and differences amongst concepts. A vehicle in which to look at objects with a new pair of eyes is to use metaphors. These are essential for learners to “make the strange familiar and the familiar strange” in order to view objects and concepts differently (Clapham, 2003). The teaching of foreign language lends itself readily to the teaching and learning of metaphors, analogies and similes which all carry with them great potential for reinforcing thinking skills and conceptual understanding (Alvermann & Phelps, 1998).

The example below is an adaptation from an ELT website as well as some suggestions made by Handa (2015) that can be applied to the topic of feelings/emotions for the various age groups.

IV. 2.11.1 Steps of the Model to be followed in the Classroom

1. Brainstorm the topic
2. Create direct analogies
3. Create personal analogies
4. Create compressed analogy
5. Re-examine the original topic

Step I : The teacher asks the students to describe brainstorm a topic. This can be done orally or the students can write down the topic. Descriptive words are then listed on the board.

Example: The topic is “Feelings”

Descriptive words: love, hate, anger, sadness, guilt, happy, remorse, joy, satisfaction etc.

Step II Students examine the target words and form analogies between the words and an unrelated category such as plants, animals or objects. They look for parallels between an object, idea or situation. It begins with simple comparisons and can be developed into more complex analogies. After all students have given an analogy, the best one is voted on by the class.

Example: Think of an object or animal that reminds you of the listed words.

Analogies:

“A dog reminds me of love”

“Happiness is like fire”

“My trainers remind me of fun!”

“The sea reminds me of calmness”

“A roaring car reminds me of anger”.

Step III: Students modify the analogies to a personal one encouraging the exercise of empathy.

Example: How would it feel to be “Fire”?

Responses: good, warm, alive, dangerous, powerful, scared, out of control, hot, mean, happy

On a more complex level students empathise with fire by considering the dilemmas and joys.

Responses: It’s confusing. Sometimes I am welcomed and other times I can destroy. Sometimes I warm people up and other times I can burn.

Personal analogies can be used for class discussion, writing projects or creative learning activities such as (1) asking students to write as if they were letters in the postal service; (2) considering how it would feel to be used like a button or a dustbin; or even (3) writing a story from the perspective of a cat or a pen.

Handa (2015) adds that some kind of personal analogies form the basis for problem solving activities; these have been adapted for the EFL classroom:

- If you were a football, what would you do about the fights on the playground?
- If you were the stop sign in front of the school, how would you get more people to come to a complete stop?
- If you were the English language, how would you change in an increasingly globalised world?
- If you were the pencil of a cartoonist, how would you feel during the aftermath of the recent turmoil and tragedy in Paris?

Step IV: The students are asked to review their responses to find pairs of words which seem to “fight” or are in opposition to one another. These are referred to as compressed analogies. These natural paradoxes aid students in considering opposing ideas and are responsible for creative insight (Handa, 2015).

The class votes for the pair of words that represent the best compressed-conflict.

Example: good-mean, powerful-out of control, happy-sad, sorrowful-ecstasy.

Step V: The teacher asks for students to choose one compressed-conflict analogy and develop a direct analogy from that one.

Examples:

Happy sadness is when you reach the end of your ice-cream cone.

Happy sadness is when the holidays begin but you’re not going to see you best-friend until September.

Step VII: Students then use the last analogy to reflect upon the original task or problem and can develop innovative products, projects and activities.

Another simple activity embodying synectic methods is to force fit two seemingly unrelated ideas from the dictionary and find how they could be related. Asking students to find photographs from a magazine that represent an analogy or metaphor of the concept being taught can also help in fostering this form of divergent thinking. Analogies can be tools to introduce new vocabulary or make comparisons of situations or characters in literature. It also helps bring writing to life. Analogies and metaphors are everywhere and can be used as warmers, discussions, to bring humour to the class, to problem-solve and to encourage personal discussion in unthreatening ways

while making learning enjoyable. As Fraser (2003, p.180) writes, “some of these metaphors appear to play a cathartic role in their authors whereas others seem to provide an engaging vehicle for creatively gifted children’s delights in the world of language and ideas”. The use of synectics is gifted friendly practice that enables teachers to nurture their talented students in their cognitive, social and emotional needs.

IV. 2.12. Limit the use of traditional forms of assessment

As a reflection of gifted friendly curriculum, which is heavily reliant on conceptual teaching and understanding, traditional standardised tests no longer make sense. The exclusive use of paper and pencil testing is considered to be overused and overinterpreted (Archbald, 1991). Dana and Tippins (1993) argue that these traditional forms of testing do not allow for the true extent of learning that revolves around concepts but information acquired of selected items. These researchers go on further to say that they also fail to capture the essence of problem solving processes which are fundamental aspects of theory driven recommended practice for the gifted.

Gifted learners could benefit from alternative assessment which is more advanced, open-ended, geared towards problem-solving and encourages students to use and demonstrate higher thinking processes (Moon et al., 2005; VanTassel-Baska, 2001). In the English Language Arts curriculum for example, assessment is based on competencies that test providing evidence for ideas, analysis of advanced level texts and evaluation of comparative text selections. Assessment of these competencies can be carried out through projects, demonstrations, debates, simulations and other forms of open-ended tasks (Dana & Tippins, 1993). Figure 49 shows some ways in which assessment can be carried out.

In order for assessment to be a true extent of gifted students’ learning, researchers recommend that teachers consider the following when planning for assessment (Moon et al. 2005; VanTassel-Baska, 2001):

1. Authentic tests should be focussed on overarching concepts and not trivial facts.

2. Assessments should not only be relevant and meaningful to students but should also test knowledge and skills that are useful and beneficial for them in the real world (Dana & Tippins, 1993).
3. Tests should engage and assess students in comparing, analysing, synthesizing, generating and evaluating (as shown at the upper end of Bloom's Taxonomy, 1956). The table below lists a variety of different activities that can be used either as tasks or to assess students more formally, all of which are meaningful in the real world. The articulation of these thinking processes can be carried out in words, diagrams, drawings, role-playing and more.

Adapted by Marie Trayer, Frameworks Project (1997) Note: *Beginning, Developing* and *Expanding* refer to the Frameworks progress indicators.

Knowledge/Comprehension (Beginning)	Application (Beginning, Developing)	Analysis (Developing, Expanding)	Synthesis (Developing, Expanding)	Evaluation (Developing, Expanding)
<i>What students will do:</i> • Write telegrams • Arrange lines of dialogues • Fill out authentic forms from the target country • Explain proverbs, slang • Listen for sequence • Explain the "What? Who? Where? How? Why?" • Give description of scenes from a video presentation • Describe pictures from the target country • Define words • Listen and paraphrase in English a conversation heard in the target language • Draw picture from verbal information of a target culture's scene or object	<i>What students will do:</i> • Dub cartoons, T.V. shows • Command others step-by-step to prepare a typical cultural dish • Produce questions with correct pronunciation • Apply a cultural custom to a real-life situation in the target country • Interview classmates on their daily activities • Plan a menu for occasions typical of the target culture • Make shopping lists for various cultural social events • Apply rules of correct cultural protocol while dining in the target country • Classify words, poems, authentic materials, genre • Apply gestures learned to an authentic situation • Apply reading strategies to understand authentic texts	<i>What students will do:</i> • Identify elements of a particular literary form • Analyze the lyrics of popular songs to compare both cultures' perspectives • Compare points of view found in two editorials • Analyze a story, poem, and other authentic materials • Analyze a scene in the target culture • Find evidence to support opinion • Compare students' customs with the target culture's • Conduct a survey and analyze the results • Analyze the typical foods of the target country for nutritional value • Identify the best route to an historic site in the target country • Play the role of a tourist who bargains for merchandise in the target country	<i>What students will do:</i> • Write an alternative ending to a story • Predict consequences if other historical events would have resulted differently • Write titles for a play, story, or article • Write headlines in newspaper style on current issues in the target country • Predict future events • Write a diary of an imaginary trip • Extend a story • Hypothesize the reaction to different situations based on the cultural beliefs • Compose a poem, skit, role-play, advertisement • Create hypothetical real-world situations found in the target culture • Create an infomercial	<i>What students will do:</i> • Prioritize solutions to cultural dilemmas • Express and justify opinions on creative products of the culture • Give and support opinions about issues • Evaluate TV shows, movies, cartoons • Write an editorial giving and supporting own opinion • Express the pros and cons of policies • Give and support the decision in a mock trial • Write an ambassador with suggestions for the resolution of a real-world problem • Justify decisions of sites to visit in the target culture • Read an editorial in a target-country newspaper; respond and send response • Evaluate best World Wide Web pages for sources of current events in the target country

Figure 49. Assessing at different levels (Nebraska Department of Education, 1996 p.307)

4. Teachers should implement a range of both formative and summative testing forms which involve records of written and oral pieces. Assessments such as portfolios, which are a collection of students' written pieces collected during the course of the term/year lend themselves to more formative assessment. The

usage of multiple approaches can work to the teacher's advantage by providing a more comprehensive picture of the student's learning.

5. Standard pencil and papers should be used when appropriate. If language mechanisms require assessing, a more traditional, closed pencil and paper test should be used. Specific mastery of language mechanisms can often be overlooked in more open-ended tasks and therefore should be assessed in more traditional forms.
6. Ensure off level/advanced tasks where high ability students are not at risk of being constrained by ceiling effects. Advanced and open-ended tasks will challenge and enable assessing students in a way that traditional forms of testing do not permit. For example, sophistication of ideas and elaboration of fluency can be assessed through various forms of writing.
7. Implement open-ended formats where a range of answers with multiple approaches can be discerned and students are assessed on the number and quality of possibilities articulated.
8. Reflect on how assessment results can be used. Employ methods that give true feedback to students of their learning and makes them strive further. Creating more transparency by breaking down milestones can help them challenge themselves further. Scoring rubrics also permits the teacher to document information that can help feed into future planning for these already high achievers (VanTassel-Baska, 2001; Coil, 2004).

The multi-faceted dimensions of giftedness require a multi-dimensional approach to assessment. Below are two options for differentiated assessment.

IV. 2.12.1. Performance-based assessment

Performance-based assessment requires students to demonstrate their skills and understanding rather than showing it passively. For example, students might be asked to write an e-mail to a friend summarizing the story read in class or enact the part of the play they found to be the most fundamental in the story. Students might be requested to write a slogan for an advert or a fundraising letter could be written to a local company. The topic on transport could lead to an oral presentation of a survey after discovering the types and frequency of transport used in the last month. Another suggestion may be

to write reviews of favourite stories read in class or at home and have local bookshops use these short passages alongside the books for young consumers to read as they make their decisions of which book to buy.

One of the groups in the observed classes, an 11th grade, interviewed students' opinions on the possible banning of the school uniform. They were persuasive in their arguments and were lobbying for something they felt strongly about. They gathered other schoolchildren's opinions and put together a report which was then sent to the headmistress for consideration. The headmistress wrote back, addressing each of the points mentioned in the letter.

IV. 2.12.2. Portfolio assessment.

This form of assessment involves a collection of a learner's academic products and accomplishments. These should be a reflection of students' interests and growth and allows creativity and choice. Students should justify their choices and articulate the process and accomplishment from the task. This self-regulation is a part of the metacognitive practices that teachers should be implementing in a gifted friendly classroom. Homework assignments, drawings, worksheets and tests can be included but journal entries, letters, persuasive writing and independent projects are also possibilities. The portfolio allows for students to take ownership of their learning and encourages planning and monitoring their own progress. It should be shown and celebrated with colleagues and parents on a regular basis.

Research demonstrates that authentic assessment such as the above lead to improved instruction. These forms of authentic assessment involve in-depth assessment discussion about what assessment information teachers need and how they can obtain it. What follows are naturally more learner centred checklists, grading scores and rubrics.

IV. 2.12.3. Scoring rubrics.

Criteria are identified that determine each score point for each domain. A good rubric is inclusive, stating varying traits to be assessed in the product or performance. Guidelines for a good rubric is that it (i) is very clearly outlined for the student; (ii) can be used as a checklist by the student to do quality work; (iii) challenges students to go beyond what is expected; (iv) is coherent and fair; and (v) is a transparent assessment

which enables answering parents or students with clarity. Additionally, Coil (2004) suggests including an additional column for the gifted and talented, one which states full achievement of the task as well as extension of task (see Figure 50 below).

Rubric - Chart of Character Traits: Greek God or Goddess and Famous Person Today

NAME:

DATE:

Standards/Outcomes:

1. Show understanding of how Greek mythology has made an impact on current thinking.
2. Analyze character traits of a character in a Greek myth.
3. Organize, write, and present ideas.

C R I T E R I A		1	2	3	4	5 Extension
	Identifies Greek god/goddess and famous person of today and lists similar character traits.	Identifies only god or goddess but not famous person. 1-2 character traits.	Identifies god/goddess and famous person and 1-2 character traits.	Identifies god/goddess and famous person and 3-4 character traits.	Identifies god/goddess and famous person and 5 or more character traits.	Everything in #4 PLUS identifies unusual/unique traits that both have.
	Gives examples of each trait for both the Greek god/goddess and the famous person of today.	Has 1-2 examples for famous person or the god/goddess but not both.	Has 1-2 examples for famous person and the god/goddess.	Has 3-4 examples for famous person and the god/goddess.	Examples for each of the 5 or more traits for god/goddess and for famous person.	Gives little known examples; links traits of both in uncommon ways.
	Indicates which traits are strengths and which are weaknesses.	Indicates strengths or weaknesses for 1-2 traits but doesn't explain why.	Indicates strengths or weaknesses for 1-2 traits and explains why.	Indicates strengths or weaknesses for 3-4 traits and explains why.	Explains each of the 5 or more traits as a strength or weakness and indicates why.	Explains each of the 5 or more traits as both a strength and a weakness and indicates why.
	Follows Chart criteria card.	Has 1 item on criteria card.	Has 2 items on criteria card.	Has 3 items on criteria card.	Has all 4 items on criteria card.	Visually striking chart; extremely detailed and understandable.
					Grade	

Figure 50. An example of a scoring rubric (Coil, 2004)

Moon et al. (2005) found that students use rubrics to guide their initial planning, during the process and as a checklist to verify completeness of the task. For a more collaborative approach, Kingore (2007) suggests that students give themselves a score on the rubric using one colour and then to conclude teachers use a different colour to evaluate the student.

By consistent authentic assessment evaluation of their accomplishments, gifted learners are given the opportunity to take ownership of their learning, feel challenged and motivated to improve (Wiggins & McTigue, 2005). Relying exclusively on traditional testing forms is an insensitive form of measurement for the inclusive classroom and is a disservice to the highly able in our classrooms.

IV. 2.13. Transform lecturing into problem-solving with inquiry based methods

I have no special talents. I am only passionately curious.

Albert Einstein

The ICM recommends active, curious learners in constant search for information. It is strongly advocated within gifted practice as it encourages skills required by real practitioners in the field such as researchers, writers, journalists, interpreters, translators and more. Inquiry learning involves making observations, formulating questions, critically analysing sources of information, planning research and interpreting this data. Although difficult to be observed across only one lesson, none of the teachers were observed implementing these strategies. However, these strategies can be viewed as an attitude to life in that it engages the student in confronting and solving problems and encouraging for the search of realistic solutions. Not only is it a systematic approach to problem-solving but it is also collaborative. It is the student who probes the topics. It is not expository in that the teacher selects the topic and presents it to the class. It is their questioning and inquiry that leads the way for the topic.

One of its strongest points is that it is propitious for differentiating instruction for the gifted and talented by addressing elements which develop higher order questioning and thinking processes. Additionally, it allows for depth and complexity and is student-centred in that it allows for choice.

Inquiry-based learning is seen to differing extents in problem-based learning, project-based learning and discussion strategies such as Socratic discussions (VanTassel-Baska & Brown, 2007). Below are some guidelines on how to implement inquiry based learning in the classroom (Arauz, 2013):

1. Intentionally expose them to an engaging topic which stimulates their curiosity. In an EFL classroom an example can be lifestyles in American society and its culture. A starting point could be presenting a prominent American figure, place or book.

2. If it is an intriguing topic for the students, they will naturally make observations and inquire. It is important at this point to model higher level questioning strategies by steering away from yes/no questions and guiding them towards questions that are more open-ended and will involve researching and gathering information. For example, *Is appearance very important in the USA? Is it the same in Portugal? Why is that the case? Have people got healthier lifestyle habits in the USA?*
3. Support them by formulating appropriate questions and giving due importance to the structure and grammar forms. Various forms of wording the questions can also be developed and hence increase the lexical repertoire. Using the idea above, find possible alternative ways of saying “important”, “appearance”, “habits” etc.
4. Students may be bursting with curiosity and may come up with various questions but it is important to outline a plan with the central guiding question and the various sub questions. Depending on the age group, a class could work on one central question or have each sub question researched and developed by smaller groups. This outline is fundamental for you and your students. Clear objectives and time frames should be set. Time frames need to be set accordingly and teachers should refrain from taking control. At this stage it is also important for the teacher to consider the element for assessment and prepare a scoring rubric for the project. As mentioned earlier, scoring rubrics can guide students before, during and after the completion of the task.
5. Students conduct the research to answer the essential questions. This may involve carrying out interviews to staff, parents or peers and could also involve SKYPE interviews. Internet research, reading books, articles and watching documentaries may also be used. Teachers can cater for readiness levels by narrowing or increasing the repertoire of research possibilities. The highly able students can be encouraged to access information via newspaper articles which are current and present real-world issues.
6. Although this activity is normally student-led, some explicit knowledge may be required. The teacher needs to monitor the work constantly and scaffold

students in the areas needed, always keeping in mind that there will be specific areas that gifted learners will need support in too.

7. Students can decide on how to present their final product in collaboration with the teacher. Students can prepare a photo gallery, excerpts from Americans discussing their lifestyles, enact a chat show, prepare a graph comparing the use of exercise in the various English speaking countries with Portugal and so forth.
8. Bring together the learning from all students. Ask students to reflect on what they learnt in light of the initial questions. Was the question answered successfully? What was lacking? What would they do differently? These evaluative questions are elements of metacognitive awareness which stretches students' learning and is a characteristic of the gifted learner.

IV. 2.14. Integrate a balanced (and differentiated approach) to the four skills

Integrating the language arts means providing natural learning situations in which reading, writing, speaking, and listening can be developed together for real purposes and real audiences (Wagner, 1985). It involves learning and teaching of the skills in a holistic manner, not in discrete units. Hence, maximising opportunities for cross-curricular reading, writing, listening and speaking in the English as a Foreign Language Classroom and across the curriculum is a recommended practice for gifted learners (VanTassel-Baska & Stambaugh, 2006). Students of teachers that participated in this study were rarely given the opportunity of synthesis or summary of information within or across disciplines.

Although the teaching of a second language classroom should be replete with opportunities to practice and develop these skills, it is important to envisage these skills in the perspective of the gifted learner (Robinson et al., 2007).

IV. 2.14.1. Literature

Ample opportunities for reading need to be created for gifted learners. Many opportunities for students to read quality texts which vary in terms of range and content

should be organised. These should also take into account diversity and relevance in today's world (Robinson et al., 2007). The Adapted CPQ showed that no differentiation was taking place in the provision of reading opportunities. These opportunities for reading can range from poetry, plays, essays, autobiographies and blogs. Teacher A stretched her student's reading and interest levels by bringing in newspapers:

...I had a lesson where D said, "I loved the lesson today." I just took newspapers, lots of newspapers, stacks of newspapers to the classroom and I told them to find articles on a certain topic. Some of them were done very fast, they found one and they summarised it. D read for almost two hours. I'm sure he chewed up all the news! (Teacher A)

Depending on the readiness levels of the gifted and talented in your class, you might choose to use the assigned book for all and then provide activities which differ in depth and complexity or use a different book altogether. VanTassel-Baska et al., (1988) shares a word of caution as "the use of a basal reading series typically focuses too much time and attention on mastering the reading process, particularly phonics, rather than allowing gifted students the opportunity for holistic reading of good literature" (p. 156). It might be worthwhile resisting against an overreliance of worksheets and discussion and overuse of one common text for the whole classroom; research carried out to assess the efficacy of the ICM involved advanced literature selection that were two years beyond grade reading levels. Depending on the level of giftedness, one common reading book may prove to be an insensitive solution towards gifted learners.

One strategy to help counteract these deficits while also allowing students to pursue their own interests are Literature Circles:

- Students choose a book from a controlled range of options (consider readiness, interests and preferences).
- Students are encouraged to meet with a small group of students (once every two weeks for example) who are also reading the same book. These groups may be homogenous or heterogeneous in terms of ability.
- Students are given roles which bring out discussion of characters, plot, essential themes and literary devices. In this manner, students are collaborating in terms

of learning about other people's views and opinions while developing their speaking and presentation skills.

- Teachers can extend the activity by requesting adapted versions in the form of a play, an e-mail exchange amongst the characters or write a collaborative review. Although teachers were found to encourage reading, creative or expository tasks based on this reading was rarely carried out (approximately once a term).

IV. 2.14.2. Writing

Writing for the high ability should focus on expository, persuasive, narrative, informative and argumentative skills. VanTassel-Baska (2003) places significance on drafting, editing and revision by self and by peers. As carried out by Teacher K, exposure to their favourite authors' books and styles of writing could lead to experimenting a similar style.

Teacher K extended a gifted child's work by asking her to read Adrian Mole's diary which is full of humorous writing.

IV. 2.14.3. The Formal Study of Language

English grammar and syntax can and should be compared for similarities and differences with the Portuguese language as well as other languages being studied. This integrated form of teaching and learning will make learning more meaningful. The history and development of language can be taught and the focus on analogies, false friends and origins (etymology) can also be used to create links with other languages and subjects.

...the connections they make between the different languages that they learn because here they have German, Portuguese, French and English...some of them also speak Spanish. It's a wide range of languages that can be absorbed by them...with the rules and exceptions and with comparing one another. So it's kind of really interesting to see what they come up with... (Teacher F)

As carried out in L1 classrooms, activities that involve the learning of homonyms, homophones, loan words, idioms and antonyms should also be addressed to provide gifted language learners with more depth and complexity.

IV. 2.14.4. Oral Communication

When gifted learners are verbally gifted, an emphasis should be placed on (1) evaluative listening; (2) debate; (3) discussion which highlights question-making, probing and elaboration of ideas.

As an example, one of the 12th grade observations that took place this year took advantage of the presidential debates between Hilary Clinton and Donald Trump. Students were looking into the topic of immigration as a subtopic of globalisation.

Care must be taken to provide learners with a balanced approach to speaking via listening and speaking activities. An approach which allows for natural learning is to invite English speaking parents or school staff to come to class and have students engage in dialogue. Depending on the age group, topics can be made transversal.

As an example, a Canadian living in Lisbon (one of the student's mother) was invited to an eighth grade English as a Foreign Language classroom. As the teacher knew that the parent was a heart surgeon, she organised for the Science teacher to be present and this led to a very interesting vehicle for the learners to express themselves in English. Very interestingly, as the Canadian woman had only recently immigrated to Portugal, there were lots of humorous language experiences she was able to share, which helped students empathise with the foreign language learning experience and also bring some similarities and differences that exist between the English and Portuguese languages. Differences between the various Englishes were also discussed.

IV. 2.15. Encourage schoolwide theme-based projects through enrichment clusters

An enrichment cluster, part of Renzulli's Schoolwide Enrichment Model (Renzulli, 1994), involves learners of various ages and talents working together to produce a product or service for an authentic audience. Opportunities can be created for students to come together once a week over a term and work on a selected topic of interest with a teacher who shares their interest and possesses some advanced knowledge in the field. Topics are selected based on an interest inventory and parents and staff and other members of the community are all invited to participate with the objective of developing authentic projects that might involve creative writing, painting, creating a videogame, archaeology etc.

These enrichment clusters revolve around authentic learning which includes applications of relevant knowledge, thinking skills and interpersonal skills (Renzulli, 1994). Renzulli states that the real-life problems need to share four criteria (i) students should have an emotional commitment to the purpose of the project; (ii) solutions or products that are created are for communities rather than individual solutions; (iii) it must encourage change or create awareness; and (iv) it should involve authentic audiences such as actors and playwrights.

While reflecting and considering the needs of a gifted student, Teacher A manifests the following:

...give him a challenge that is not an exercise...so something that doesn't have the touch of schoolwork. I think that would help. (Teacher A)

This type of learning which differs strongly from schoolwork, is what Renzulli refers to true laboratories of learning as they resonate with theatres, film-making studios, art studios, kitchens and much more. It is the consumer who is encouraged to assess the final product. Students take on the role of first hand investigators, writers, artists and other types of professionals. In this manner, all students across the school are being given opportunities to apply their interests and skills and enrich their learning experiences.

These activities are interdisciplinary in nature in that in order for a service or product to be delivered, various professionals come together and develop their part. For example, in the cluster “The Video Production Company”, product development requires scripting, storyboarding, drama, set design, costumes, cinematography and video editing. The idea itself may have been put forth by a teacher with both a passion in filming and a network of contacts within the community to provide additional authentic experiences. Once students have ticked what clusters they would prefer to participate in and the school community of teachers have established what clusters they are going to be facilitating, Renzulli suggests setting a plan based on the following questions:

1. What do people who are interested in this area do?
2. What products do they create and/or what services do they provide?
3. How, and with whom, do they communicate the results of their work?
4. What resources and materials are needed to produce high quality products and services?
5. What steps need to be taken to have an impact on intended audiences?

Students identify resources to help achieve these answers by interviewing practicing professionals (parents, staff and other local community members), doing some research on the internet or using introductory books. It might be worthwhile to create a cluster box for that particular field with the specific equipment, supplies and books which can be compiled with the help of parents.

The division of labour in the Video Production company cluster would entail students investigating and working as actors, costume designers, screenplay writers, producers and more. Students decide collaboratively on the product or service they will provide and to whom they would like to demonstrate it to. The division of labour which the Enrichment Cluster Model provides is differentiation in its purest form, in that students are engaged in an area of their strength and interest.

Possible pitfalls that educators and administrators need to take into account when planning on implementing an Enrichment Cluster are listed (Reed & Westberg, 2003). First, it is important to ensure that learning goals are connected to the curriculum objectives. Reed and Westberg (2003) also highlight that careful organisation of a

structure that takes into account time, small groups of students to work in appropriate places within the school with guidance from a sufficient number of cluster facilitators, paraprofessionals and others is needed. In essence, it is vital that the Enrichment Cluster entails a balanced approach towards a student-centred, interest-based and curriculum aligned project.

Renzulli (1994) recommends applying this model for a couple of hours on a weekly basis. Finding the time to organise schoolwide enrichment clusters and scheduling can be challenging, although not impossible. This model has found its way into clubs, after-school activities and even lunch breaks. A recent development which might facilitate the schoolwide enrichment clusters to be implemented is *Projeto de Autonomia e Flexibilidade Curricular* (Despacho nº 5908/2017, de 5 de Julho). Some private and public schools will be able to use a percentage of the school hours to manage the curriculum flexibly with the aim of instilling higher competencies. As the enrichment cluster model is not a set program, each school can carry out a needs analysis based on their specific areas of weaknesses and find their own areas of competencies that can be developed through these clusters. With some perseverance and creativity, teachers can use the Enrichment Cluster Model to motivate and challenge students at their own pace while also providing gifted and talented learners the opportunities they deserve.

IV. 2.16. Use cooperative learning judiciously

Cooperative learning strategies have been indoctrinated in preservice teaching courses since the 1990s and have taken upon the role of an unquestioned tool applied by all level schoolteachers (Huss, 2006). Many of the teachers that were interviewed demonstrated similar trends.

I usually put a weaker student with a stronger student. (Teacher G)

I usually like to have groups of different levels so that we have some students that can more or less guide or lead the group and they would be the strongest in these groups. (Teacher H)

Its principles resonate with the notion of Vgotsky's Zone of Proximal Development (Vgotsky, 1986) in that when students work with adult guidance or more capable peers, learning takes place. This begs the question of how the gifted and talented can be provided with similar opportunities for learning. The constant overuse of the heterogeneous mix might not be a solution we can settle for. In fact, cooperative learning has been likened to a sausage (Robinson, 2003). It is a cheap and relatively tasty meal to serve at dinner but on closer inspection not all of its questionable ingredients should be consumed.

It has often been shown that gifted students may resent the overusage of mixed ability groups. When it is used as the predominant method, gifted students feel exploited and negative effects are experienced both by the gifted learners as well as by the other group members (Robinson, 2003). Coleman and Gallagher (1995) go on further to report that gifted learners feel annoyed when persistently approached for answers by other group members and harbour resentment when grades are lower because of a lack of effort on behalf of others. Contrary to what many teachers seem to believe, gifted students benefit cognitively and affectively from working with other gifted students. As already mentioned above, having to explain rote material to other students is not maximising high-end pursuits of their own (Huss, 2006).

Huss (2006) highlights that only 5% of teachers are loyal to the format of cooperative learning as proposed by Johnson and Johnson (1993). In fact, Cohen (1994) described most groupwork as "collaborative seatwork", i.e., work carried out as groups that could have just as well been achieved individually. As Huss (2006, p.20) writes, "What we find are cooperative groups – led by gifted students – occupied with unsophisticated endeavours, spurred by didactic teaching".

In a review carried out by Webb and Palinscar (1996), it was shown that when a high ability, low ability and mid ability students were grouped together, the high ability ended up tutoring the low ability. Mixed ability groupings should be used with caution. Cooperative learning tasks can be beneficial for an inclusive classroom when the following elements are taken into account (Huss, 2006):

1. Positive interdependence: Students understand that no one succeeds without the success of all the group members. Activities where no single person has all the answers is ideal. Jigsaw puzzles, a strategy invented by Elliot Aronson in the

1970s, were indeed used by some of the observed classes. Used appropriately this strategy can improve motivation, reduce racial conflict, improve learning and enjoyment of the experience. These will be discussed further on.

2. Individual and Group Accountability: Hiding in a group of four proves to be more challenging than doing so in bigger groups. Smaller groups will benefit in that opportunities for disengagement are reduced. Huss (2006) suggests randomly choosing students to report on the group's progress as well as annotating the frequency of a member's contribution. These strategies may help reduce the free rider effect and counteract the levels of frustration often experienced by gifted learners whilst simultaneously encouraging full engagement on behalf of all participants. Another tip is for learners to work and learn cooperatively but be assessed individually. Having students assess peers may also aid in informing the teachers about students' strengths and weaknesses. These techniques will result in more engagement and reduction of the free rider effect.
3. Face to Face Interaction: Cooperative learning should involve activities where students have the need to impart ideas, share thoughts, orally explain and clarify their doubts in real time. Activities which forgo the need to share and engage with other team members are only cooperative in title. In this manner, there is also a fortification of interpersonal skills.
4. High level of Challenge: Learning basic information in these formats is not evidence based recommended practice for gifted learners. "Heterogenous groups should be reserved for challenging, creative, open-ended and higher order thinking tasks" (Huss, 2006 p.20). Cooperative groups should focus less on absorption of information and more on conceptualisation, analysis, questioning, reflection and sharing of beliefs. This will guarantee quality learning for all learners.

Some simple activities that embody true cooperative learning include the Roundtable, Talking Chips, Jigsaw and Circle the Sage. These have been explained below:

Roundtable is a form of brainstorming activity that encourages participation by all. A teacher groups students into small groups and writes a question as a prompt for

Student # 1 on a slip of paper. The student writes his/her thoughts/answer and passes the same slip of paper on to Student # 2 and so on until the students have written out a couple of ideas each. The teacher then calls out time and the lists are collected and shared with the class.

Jigsaw Puzzles can take place in various ways but a class activity observed in an 11th grade class will be used here:

A teacher developing the theme of crime chose three different articles (articles A, B and C). One was based on a failed gun point robbery, another on a burglary where a ring was stolen and the third a money laundering scandal involving many victims. The teacher selected the articles based on the students' interests and distributed them according to the level of complexity. In this case the money laundering article was the most complex in terms of vocabulary as well as content and was given to her most able students. She then distributed the three different articles and requested students with the same articles to work together. Each student was provided with an article and various questions to guide the discussion after reading. Students were encouraged to write notes and prepare two questions they had about their articles. At this stage all the As were working together, Bs together and so on. Note that in this format, the high ability learners were reflecting, analysing and sharing thoughts cooperatively in homogenous groupings. After this stage, students were requested to work with students who had different articles from them i.e., there was regrouping. Each student then summarised their articles and gave feedback on their thoughts as well as posed some of their questions for discussion. The teacher included questions for this stage which encouraged a quiz for all of them to answer based on the three articles. For further discussion, students were asked to consider what kind of punishment should be given to each criminal in the varying situations and why.

This activity took into account goal interdependence, face to face interaction and a range of higher order thinking skills, benefitting all ability learners.

Talking Chips is an activity which encourages engagement of all students when in a heterogeneous group. Students are divided into groups of threes or fours and each one is given the exact same number of chips (paper clips, erasers, buttons, etc.). Students are encouraged to participate in a discussion in turn, dropping one chip into a cup in the middle at a time. The discussion progresses until all the students have run out of chips or the whole process can be commenced again. This kind of activity can help reduce passivity and removes pressure from the gifted learner.

Circle the Sage (Kagan, 1998) is an activity that involves sharing of knowledge of all students with the class. Here the teacher first surveys the class to understand what concepts and skills they can perform and what special knowledge and experiences they can share. For example, in a unit on hobbies a teacher may ask which of the students knows how to play a particular musical instrument, do hip-hop, know the rules of a particular game, draw caricatures, etc. The students who can do or know the above are considered the sages and are then requested to spread out in the classroom. The remaining students are divided into groups of threes or fours and asked to circle a sage at a time. The sage has the opportunity to talk in depth about his/her area of knowledge/expertise. During this time, the students ask and take down notes about the information being imparted by the sage. The students then go back to their home groups to share the information acquired. This kind of activity allows for all the students to be experts, removing pressure from gifted learners and creating positive learning experiences for all participants.

Insufficiently thought out and unstructured cooperative learning activities are often not challenging enough for the gifted and talented. These learners often end up as junior teachers or carrying out most of the group work which is detrimental for all the learners involved. While there is an undeniable move towards heterogeneity, gifted learners should not be denied opportunities which maximise their learning. Teachers are advised to use well-balanced cooperative learning techniques as a tool amongst various other options. In the following section, various forms of options are discussed.

IV. 2.17. Use flexible grouping strategies

Teachers either use whole class teaching methods or fixed groups throughout the school year. Ability grouping or “pigeon holing” into a specific group can lead to

disengagement and lower self-esteem as well as stigmas surrounding grouping (Ford, 2005). Flexible grouping, as the name suggests, refers to the way groups are a dynamic, changing and fluid process, as opposed to a fixed state. According to Tomlinson (1999), this is a non-negotiable aspect of effective differentiation based on students' readiness, interests and preferences. Various forms of groupings (whole class, small groups, dyads or individual) can be used within the classroom for varied periods of time and for differing subject areas. These groups can be teacher or student led and can be homogeneous or heterogeneous and varying their implementation is a highly recommended practice for the gifted and talented (Robinson et al., 2007).

IV. 2.17.1. Same ability groupings/cluster groups/homogeneous groups

Feldhusen (1989) purports that students model their behaviour on similar ability peers that are coping well in school. The researcher adds that watching others of similar ability succeed increases self-efficacy and motivation to engage and succeed at the activity. Self-reported practices indicated that teachers grouped students by ability a little less than once a month. Researchers also add that not providing opportunities for gifted and talented students to learn at the pace and complexity with others like themselves may reflect negatively on their attitude towards the subject, towards themselves as well as lower achievement (Rogers 1991).

Cluster grouping is another research supported alternative which involves grouping together small groups of gifted students in need of similar instructional challenges in a mixed ability classroom (Fieldler et al., 2002). This group can be placed in another grade level or a specific subject for part of a subject, day or week and like other groupings should be formed with information from pre-assessment. When catered for by providing high-end challenges and learning opportunities, children in cluster groups are shown to truly benefit and in reading demonstrate approximately four fifths of an additional year's academic achievement (Rogers, 2007). Gentry and Keilty (2004) have also demonstrated that in this manner all students in the classroom seem to benefit as implementing differentiation becomes more structured.

IV. 2.17.2. Heterogeneous grouping/small mixed-ability groups

.... I have to mix them. That's what I manage to do and that is what our syllabus says we should do. (Teacher L)

Although much has been written about cooperative learning (often the aim of heterogeneous grouping) in the section above, it is important to highlight it as an evidence based practice for the gifted it should be used as one possibility amongst many. When elements of positive interdependence, individual accountability and challenging tasks have been respected, this grouping can help students understand different points of view and interests as well as to promote creativity. Researchers have recommended its usage in particular when maths and reading proficiency are not involved (Robinson et al., 2007).

IV. 2.17.3. Whole class instruction

Whole-class instruction is often used to introduce new content and strategies to the entire class. It can be used to introduce initial scaffolding and some enrichment activities, present motivating tasks which are pertinent to all learners, for celebrations and a space for guest speakers. This moment of common experiences can be used to outline the day's agenda, developing background knowledge as well as sharing student work. It is also a common ground for identification of student's prior knowledge which can impact further differentiation (Coil, 2005). It is also a way to instil a sense of community into the class.

IV. 2.17.4. Dyads/pairs

Working in pairs is an option which also allows the teacher to manage readiness, interests and learning preferences. Depending on the task, students can be paired with someone of the same ability or lower ability. This kind of learning can be more focussed than in a larger setting and can work especially well when two gifted learners are interested in a similar field.

Students A and F showed mastery of eighth grade grammar rules that were going to be covered over the following weeks. In this situation, the teacher could suggest for the boys to create a product that was related to the topic yet allowed them to further both their interests in a specific area. As both the boys are interested in computer games, a computer game to test students on the grammar both of them had already mastered could be suggested as an idea. An idea is to do so on Kahoot, a freely available online game platform which is user-friendly both for teachers and students alike! As further extension, these students could prepare a section which could also be used for the ninth grade grammar objectives. In terms of organisation, these gifted learners have opportunities for enrichment and extension while their colleagues work at their own readiness levels. Monitoring and supervision need to be constantly given by the teacher to pinpoint possible errors in the content being prepared and in particular in reference to the material that is relevant to the grade above. Once this is done, the game can be used as a form of end of unit test for the eighth graders and further plans can be made to have ninth graders practice or test their knowledge of the grammar structure as well. This is one option amongst various but that could work well with these gifted learners who are both at the same readiness levels in terms of the specific grammar and have similar interests.

IV. 2.17.5. Individualised instruction/independent study

Gifted students are likely to want to develop independent study and independent projects in comparison to other students (Rogers, 2007). This format of work allows for gifted students to develop areas of interest, honouring their pace and performance level. Students of the participants in the present study were provided with time for independent study projects a little more than once a month. Well-structured and monitored independent work leads to independent learning, improved organisational skills, time management and the development of individual responsibility (Coil, 2005).

Teacher K's experience demonstrates the various ways in which flexible grouping works for V, a seventh grade accelerated and gifted student.

She is given opportunities to work one day a week with another peer who has similar readiness levels. The teacher notices that she enjoys the competitive nature of this structure. In other classes, the teacher groups V with students who have the same interests regardless of their ability. V's interests lie in football as well as other sports. There are also times when V is given independent project work to be carried out in the library. This fluidity permits the teacher to observe the learner in multiple contexts. The teacher keeps a student profile and assesses frequently to gauge V's progress and cater accordingly via appropriate grouping and differentiation.

Working in this dynamic setup allows for gifted students to have the opportunity to develop work and learn from their peers in a manner which promotes contribution from all and fosters independence as well as cooperation with a variety of personalities. It also fosters self-perception as multidimensional learners. Furthermore, it is evidence-based practice which allows to cater for the gifted in terms of their academic, social and emotional needs (Robinson et al., 2007).

IV. 2.18. Understand that they will not “make it on their own”

....the major concern in schools is, “He is a good student, great. Stay there. (Teacher O)

...because they already know the answer or they are better anyway. So we don't have to do anything. (Teacher H)

Teachers may avoid differentiating because they may erroneously believe that gifted students will “make it on their own.” Gifted children will not thrive in a school setting if they are not challenged appropriately with novelty, depth and complexity. There may be stagnation as well as a physical or figurative “dropping out” of the educational system (Fiedler et al., 2002).

Various echoes from the interviews resonate with doubts and confusion as whether to make changes for them or how to cater for them amidst the other responsibilities that teachers have.

The work is the same...Why? Because we have 50 minutes lessons, 30 students in the classroom and I have four students with special needs - but not the same kind as his needs - and I must be here, and there, and there... because the class don't have the same level, there are different levels. (Teacher O)

If we reject the idea that a child with a learning disability is somehow less than a child with average or above average ability than why strip gifted children of opportunities for real learning? There is a misconception that nurturing academic potential is giving an unfair advantage to the gifted (Fiedler et al., 2002). Fostering a climate of acceptance of individual differences needs to be developed within the classroom, one which allows for all children to be treated the same by providing different tailored instruction. Treating all the students the same by providing all with identical opportunities is not equality.

I try to treat my students the same way. So they (the class student) won't see the difference because I don't think it is good. (Teacher O)

It sometimes feels that you have to stretch between giving them special attention and not giving them more advantages or focus on them too much because then they also turn into outsiders. (Teacher H)

A responsive teacher is fundamental. Gifted students' unique characteristics such as their passions, intense curiosity, the ability to manipulate abstract ideas faster and better than their age peers call for responsive action (Fiedler et al., 2002). Fieldler et al. (2002) argue that by failing to meet gifted students' individual needs, "our school system is giving tacit approval to create underachievement in one group so that the needs of the other ability groups can be served" (Fieldler et al., 2002, p. 2). Failure to nurture our gifted is not only relinquishing opportunities for a child's individual possibilities but society's too. Teachers need to challenge their gifted learners.

IV. 3. Summary

The research carried out in the course of this thesis regarding the state of current gifted-friendly practices in Portugal begs the following question: How can the information collected be used to bridge the gap between what is and what should be? The suggestions provided in this chapter aim to provide some support for teachers in catering for their gifted students. Although it is only a starting point, it can be further developed into a comprehensive, research-based, grade bound program that can be implemented in the English as a Foreign Language classroom.

CONCLUSION AND IMPLICATIONS

It's a tough time to raise, teach or be a highly gifted child... Schools are to extraordinarily intelligent children what zoos are to cheetahs... Every organism has an internal drive to fulfill its biological design. The same is true for unusually bright children. From time to time the bars need be removed, the enclosures broadened. Zoo Chow, easy and cheap as it is, must give way, at least some of the time, to lively, challenging mental prey (Tolan, 1996, pp. 2-5).

1. Final Remarks

The aims of the current study was to contribute to the literature on teachers' attitudes towards the gifted and gifted education as well as understand to what extent teachers accommodate these learners' needs in the English as Foreign Language Classroom in secondary schools in Portugal. The research questions guiding the study included:

1. What attitudes do secondary teachers of English as a Foreign Language in Portugal hold concerning gifted learners and their education?
2. How do secondary teachers of English as a Foreign Language in Portugal perceive the way they differentiate instructional practice to accommodate their gifted learners?
3. How do secondary teachers of English as a Foreign Language in Portugal differentiate instructional practice to accommodate their gifted learners?

The above research questions were analysed with the help of three instruments: Opinions towards the Gifted and their Education (OGE), the Adapted Classroom Practices Questionnaire (CPQ) and the Classroom Observation Scale-Revised (COS-R). Further insight on practices carried out in the classroom were collected via a semi-structured interview. A combination of quantitative and qualitative research strategies were used to shed light on teachers' attitudes and gifted-friendly practices. The previous chapter aimed to bridge the gap between the attitudes and gifted-friendly practices as

gathered from this study with best practices; a list of suggested gifted-friendly strategies have been put together for secondary teachers of EFL. In this chapter, the major findings of the study are outlined in light of previous research. Where possible, conclusions are drawn and implications of these findings and recommendations for future research are delineated. Finally, this chapter concludes with some critical reflections.

Secondary teachers of English in Portugal reported very positive attitudes in the construct measuring Needs and Support. In other words, analogous to previous research (Lassig, 2003; McCoach & Siegle, 2007; Troxclair, 2013) teachers demonstrated an understanding of different educational needs of the gifted and the role of the school and society in its provision. Teachers' attitudes as measured by the construct Resistance to Objections were found to be positive; this construct purports to measure how teachers' ideologies may interfere with the provision for the gifted. The dimension of Rejection, which aims to measure the perception of the isolation of gifted individuals in society showed that teachers' attitudes are ambivalent. This trend of ambivalence was also found in teachers' attitudes towards homogeneous grouping as measured by the Ability Grouping construct. Therefore, it can be said that secondary teachers of English in Portugal, as measured by this sample of teachers, harbour predominantly ambivalent to positive attitudes towards the gifted and their education.

Teachers in Portugal were found to be supportive of the need for gifted education. These findings are similar to the ones observed by various other international researchers (Drain, 2008; Krijan & Boric, 2014; Lassig, 2009; McCoach & Siegle, 2007). In Portugal, an exploratory study carried out in Madeira found that 60% of the respondents understood the unique needs of the gifted. Teachers reported the need for differentiated pedagogy, more challenge, acceleration measures and enrichment activities to meet the needs of the gifted (Rodrigues & Antunes, 2012). Ramôa and Oliveira (2013) observed that overall teachers were clear about the needs of the gifted when they sought to understand teachers' perceptions of the various measures for the gifted. Approximately two decades ago, Almeida and Nogueira (1988) found that 12% of the teachers in their sample harboured negative attitudes; comparatively, a fewer percentage (approximately 8%) of teachers have shown to harbour negative attitudes as measured in the Needs and Support construct in the present study. Interestingly, when looking at gender, a comparison of the medians and a Mann-Whitney non-parametric

test seemed to indicate that men harboured more positive attitudes than their female counterparts. It would be interesting to research gender further with a bigger and more representative sample.

In this study, teachers predominantly resisted common objections in opposition to gifted education, such as concerns of elitism or ideas related to gifted children requiring less investment than their average peers; overall attitudes as observed in the Resistance to Objections construct were found to be positive. Worryingly, when answering to what extent teachers agreed with Item 30 “Children with difficulties have the most need of special educational services” attitudes were found to be negative. To a certain extent, the delusion that gifted children do not require support, and in particular not as much as children with difficulties, is only expected. It seems to be the mirror reflection of a society that has not contemplated gifted children’s needs in our educational policies as yet. Whilst there has been a lot done towards inclusion, unlike many other countries, Portuguese legislation does not consider giftedness under the form of Special Educational Needs. This lack of indoctrination on behalf of the society can only exacerbate the misconception that gifted children can make it on their own.

One of the interviewed teachers expresses her concern:

It sometimes feels that you have to stretch between giving them special attention and not giving them more advantages or focus on them too much because then they also turn into outsiders because they already know the answer or they are better anyway. (Teacher H)

Besides supportive legislative changes, teachers need professional development that helps them understand that gifted children require guidance and challenge from their teachers; that gifted learners may be as much 40%–50% ahead of the curriculum even before the school year begins; that if insufficiently challenged gifted children may underachieve, become despondent or develop unhealthy work habits and that teachers play a critical role in the multi-faceted identification process of these learners. With accurate, research-based training opportunities teachers will understand that the gifted need specific kinds of challenge and also that it should no longer be a choice to cater for them.

It is worth noting that although half the teachers harboured positive to very positive attitudes in the Resistance to Objections construct, over a quarter demonstrated ambivalence and the remaining respondents' answers indicated that they held negative attitudes. The ambivalence encountered in the Resistance to Objections construct may resonate with the attitudes demonstrated in the Elitism subscale used in McCoach and Siegle's (2007) study. The mean on the elitism scale demonstrated that teachers neither agreed nor disagreed that gifted education is elitist. Troxclair (2013) voiced her concerns about respondents' attitudes as favourable in general towards gifted students but demonstrating unfavourable attitudes towards specific measures such as acceleration and ability grouping.

The present study, like those of Drain (2008) and Lassig (2009), demonstrated that Portuguese teachers of English harbour ambivalence towards the gifted as regards to Ability Grouping as seen in the disparity amongst the different items in this construct. When teachers responded to "When the gifted are put in special classes, the other children feel devalued", teachers demonstrated positive attitudes. However, when answering to what extent teachers agreed with whether "Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children", teachers demonstrated ambivalence. Blair (2000) points out that teachers believe that if gifted learners are placed in homogeneous groupings they may not achieve the necessary scores on standardised scores. An Australian study by Lassig (2003) which involved interviews with 126 primary teachers, demonstrated similar results. According to this author, more than half of the participants believed that ability grouping increases the consequences of labelling and that nongifted peers would then not benefit from the gifted peers' intellectual stimulation. National studies indicate concerns that the separation of students may hinder gifted students in the social domain, despite awareness of the academic gains this may bring (Almeida & Nogueira, 1988; Ramôa & Oliveira, 2013).

Additionally, public school teachers that participated in this sample were observed to harbour less negative attitudes towards homogeneous grouping than teachers from private schools. One justification for this may be that teachers use this strategy for all learners more frequently than in other kinds of schools; public school teachers might be using ability grouping to support those that require additional help and repetition which may foster the implementation of ability grouping for the higher

ability too. Nonetheless, research using larger samples is required to understand predictors of attitudes towards the gifted.

Overall, however, ambivalent attitudes prevailed in the Ability Grouping dimension. Of greater concern is when teachers demonstrated negative attitudes when answering “By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good etc.”. This may be the reason which compels teachers to promote mixed-ability groupings in the classroom as also observed from the data collected in the interviews carried out in the present study. Out of the 110 teachers, around a third harboured ambivalent attitudes and around 36% held unfavourable attitudes. This observed ambivalence might be because although teachers have the opportunity to engage with the diverse needs and potential in their classrooms, there are no consistent policies yet that have been implemented in catering for these learners. Teachers may not be aware of the perceived advantages of ability grouping or acceleration for the gifted and require professional opportunities. Feldhusen and Moon (1992) found clear evidence to support that in order to raise achievement amongst American youth, gifted learners required flexible grouping strategies which includes ability grouping. These authors caution us to the lack of motivation, achievement and poorer attitudes towards learning being fomented with the consistent use of heterogeneous grouping dynamics.

The findings of teachers’ attitudes as measured by Rejection aimed to understand awareness about the personal social experiences often endured by the gifted. When answering items that asked whether gifted students are rejected by those around them because of envy and whether these students have difficulty making friends, teachers indicated overall uncertainty. Whilst authors have found that teachers identify gifted students based on their friendliness, popularity and good behaviour, research seems to show that gifted learners often have difficulty making friends, feel lonely, rejected and look for older aged peers (Clark, 2002; Davis & Rimm, 2004). The ambivalence observed in the data obtained indicates that EFL teachers in Portugal are not sufficiently aware of the often negative social experiences of the gifted.

Similarly to the OGE, one hundred and ten teachers responded to an online version of an Adapted CPQ which asked teachers to report how frequently they engaged in 26 gifted friendly practices. Only thirty-five teachers reported having a formally or informally identified student in their current classrooms. Thorough statistical analyses

were carried out to ascertain internal reliabilities of each of the constructs; a reduction in the number of variables and the identification of a structure amongst the relationships between variables was enabled with Factorial Analyses. Demographic data was also analysed to find any underlying relations with the frequency in which teachers engaged in various practices.

Although three out of 26 practices seemed to show a difference in the frequency with which these are implemented with both gifted and non-gifted/average students, no statistically significant differences were found. Based on the sample of teachers of English as a Foreign Language that participated in this study, little or no differentiation that caters for the gifted is taking place in English classrooms in Portuguese schools. In fact, teachers were found to carry out more strategies related to Curriculum Modification with the non-gifted/average learners than the gifted. The use of pre-tests to determine what students know before a new topic is given and modifying the instructional format for students who learn better using an alternative approach were used slightly more often with average/non-gifted learners. It may be that teachers are more aware of how to use these approaches with the range of learners present in the classroom but not the gifted. Pretesting precedes compacting the curriculum for gifted learners as well as partial-subject acceleration; teachers may be using this only to do more revision and remedial work for the weaker students. This is consistent with Winebrenner's findings that teachers tend to be more focussed on remedial rather than enrichment work (Winebrenner, 2000). According to this researcher, teachers are erroneously led by academic scores achieved by the gifted learners, perceiving these as a sign that gifted students are learning. Hence, whilst societies strive towards the potential of most learners, gifted learners' needs of enrichment and acceleration are often left unattended. This was also reflected amongst the sample of teachers that took part in the present study.

Care must be taken to prevent negligence towards gifted learners as standards need to be raised for all. Solutions that involve hands-on experimentation with specific strategies that are useful for diverse learners provided during in-service training may be the answer. Similarly to what Westberg et al., (1993) recommend, quantitative and qualitative improvements in preservice and inservice training opportunities are advocated. Focus should be on learning and experimenting with gifted-friendly strategies in order to meet the needs of gifted learners.

When comparing the frequency of gifted-friendly practices amongst the gifted and non-gifted groups of students, it seemed that teachers provided slightly more opportunities for gifted learners in the component entitled Providing Challenge and Choice. More specifically, slight differences in practices were found amongst teachers providing a different curricular experience by using a more advanced curriculum and grouping students by ability across the same grade level. As analysed previously, attitudes towards ability grouping as measured by the OGE were found to be ambivalent, with teachers harbouring overall neutral attitudes. There is consistency in the answers obtained as teachers also demonstrated insufficient implementation of ability grouping strategies with their gifted children. Consistent with the same line of thought, VanTassel-Baska and Stambaugh (2005) claim negative attitudes towards the gifted to be barriers for implementation of effective strategies. Others have challenged this assertion as findings have suggested that positive attitudes do not translate into classroom practices (Tomlinson et al., 1994).

Although no statistical differences were found to account for any gifted-friendly differentiation taking place, it was deemed useful to examine and reflect upon the most commonly applied strategies by teachers who reported having gifted students in their classrooms. The most frequent practices fell under the Questioning and Thinking group. The most frequently applied practices by teachers of English as a Foreign Language were answering open-ended questions and encouraging participation in discussions about twice a month. Providing questions that encourage logical reasoning and logical thinking as well as encouraging students to ask higher-level questions were carried out only slightly less frequently. Questioning and Thinking strategies were also the most salient strategies implemented by the teachers in Archambault et al.'s 1993 study as well as the one of the most common strategies as reported by the teachers interviewed in the present study. Furthermore, teachers were statistically more likely to engage students in asking higher-level questions when they perceived themselves as gifted. Variables such as self-perception have shown to have an impact on positive attitudes (Bégin and Gagné, 1994b; Michener, 1980) and other times have shown to have no impact (McCoach & Siegle, 2007). With a bigger sample, the relationship between self-perception as gifted and classroom teaching could be understood further.

Similarly, the classroom observations carried out with the use of the COS-R in both private and public schools in Lisbon demonstrated that when teachers

accommodated their gifted learners they were more likely to do so in strategies related to Curriculum and Planning; amongst the twenty-six foreign language teachers, the most frequently implemented strategies involved encouraging students to express their thoughts. Yet on average, teachers tended to implement this strategy only somewhat effectively.

It is not surprising that open-ended questions are used slightly more frequently as a form of differentiation; there has been a certain emphasis on questioning strategies when learning about and training to implement differentiation in the last few decades. Despite that, it might be worthwhile considering how effectively questioning is being implemented. Westberg et al. (1993) found that although more questions were put forth to gifted than their non-gifted peers, these were mostly at the knowledge/comprehension level. Although the data cannot be generalised due to the small number of participants, the results obtained from the COS-R demonstrated that critical thinking strategies such as encouraging students to judge or evaluate situations, problems or issues more effectively, comparing and contrasting ideas, generalizing from concrete data or information to the abstract and encouraging student synthesis were found to be ineffective. Creative thinking strategies which required soliciting diversity in thoughts and issues and providing the opportunity for students to develop and elaborate on their ideas was found to be similarly ineffective. It would be useful to understand teachers' views of the kind and variety of higher level questioning and thinking that is recommended practice for the gifted. Some suggestions for teachers to use these effectively in the classroom have been elaborated upon in Chapter 4.

The second most frequently used strategies by the group of teachers who reported having a gifted child in class were Curriculum Modifications; using pre-tests, substituting different assignments and modifying the instructional format to suit the learners' needs were used between once a term and once a month. As students pertaining to the teachers in this sample have English classes between two to four times a week, these results cannot be considered favourable in what concerns implementing gifted-friendly practices in the classroom. This is consistent with findings from other studies (Archambault et al., 1993; Westberg & Daoust 2003). In fact, the limited use of pre-assessment and flexible summative and formative testing has been considered a potential hindrance in enabling teachers to work towards catering for the diversity in their classrooms. Moon, Callahan, Tomlinson, and Miller (2002) found that a large

proportion of teachers indicated never to modify an assignment for students or tailor materials based on student readiness levels. In fact, students that participated in this study reported being taught to consistently pass the end of chapter tests. Moon et al. (2002) reported that the most prevalent teaching methods include lecturing and whole class instruction with teachers engaging in these practices 46% on a daily basis and 98% of the educators on a weekly basis.

Teachers reported using strategies such as assigning reading of more advanced level work, assigning projects requiring extended time and giving creative or expository writing assignments on topics selected by the teacher, as part of Reading and Writing Assignments even less frequently. Implementing advanced reading as a strategy for gifted learners was also a method reported by about 35% of the interviewed teachers. It is slightly concerning that only a few teachers reported extending this work by providing time for independent projects. Wood (2008) expresses concerns in the overemphasis of independent learning and lack of regular teacher intervention. When looking at the relationship amongst the various variables, statistical analyses showed that when teachers had more hours of English a week, there was more engagement with these practices. Whether more hours of the target subject facilitate learning about children's individual differences and their inclusion when planning or whether the priority to the subject given is based on the number of curricular hours is unclear. Further research is needed to understand the impact of the number of hours and their influence on the implementation of gifted friendly practices. This variable also showed significant impact on teachers providing a different curricular experience by using a more advanced curriculum unit and grouping students by ability across the same grade level.

The least used strategies were related to Providing Challenge and Choice to students. Hence, as a group of strategies, practices such as allowing students to work within a higher level textbook, using a more advanced curricular unit and grouping students by ability across classrooms at the same grade level were the least used. Again, the means showed that teachers used this a little more than once a term. Moon et al.'s study, which encompassed reported strategies by both teachers and students, showed that students felt they were never given the opportunity to skip an assignment if they already knew the subject, rarely received different materials from other colleagues and were never given choices in selecting project or independent work. Teachers also

confirmed seldom providing student choices with their high ability or struggling learners. Although students reported preference in working with other students who shared similar interests, teachers rarely used flexible grouping (Moon et al., 2002). The observations conducted in the present study provide a similar trend; when teachers provided opportunities for independent learning and accommodated individual or subgroup differences through student or teacher choice in material selection and task assignments, these were deemed to range between ineffective to somewhat effective.

Practices considered gifted-friendly strategies within Reading and Writing Assignments, Providing challenge and Choice and Questioning and Thinking were more frequent in international schools than in other schools. More specifically, the type of school teachers worked in seemed to have an influence on the following practices: “Assign projects or other work requiring extended time for students to complete”; “Group students by ability across classrooms at the same grade level”; “Encourage students to ask higher-level questions” and where teachers answered how frequently they “Encourage student participation in discussions”. Similarly, data from the observations were found to be consistent with the finding that teachers teaching in private schools seem to engage more frequently in gifted-friendly practice as grouped in the COS-R as Curriculum Planning and Delivery, Accommodations for Individual Differences, Problem Solving Strategies and Critical Thinking Strategies. It is worth reiterating that these results cannot be generalised due to the size of the sample. Further work should also explore the impact of numbers of students per class on differentiation.

Differences shown by a statistical level of significance lower than 0.05 were found in 15 of 26 gifted friendly practices in the CPQ when looking at gifted education training/workshops within university courses. This indicated that teachers who reported to have had gifted education training/workshops during their university course engaged in specific gifted practices more often than when teachers did not have this kind of training. Teachers who had had training in gifted education during their further education reported more engagement in assigning reading of more advanced level work, providing time for projects, making time for self-selected interests, eliminating curricular materials that students have mastered, assigning different homework based on student ability, allowing students within the classroom to work from a higher grade level textbook and sending students to a higher grade level. Training in gifted education also seemed to result in more frequent usage of: assigning students book reports; giving

creative or expository writing assignments; administering pre-tests; substituting different assignment for students who have mastered regular classwork and modifying the instructional format for those who learn using an alternative approach as well as providing a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic.

Westberg and Daoust (2003) found similar results to the one in the present study; teachers who had carried out some sort of coursework in gifted education were more likely to engage in curriculum modification to meet the needs of the gifted. In the present study, teachers who had participated in training or specific gifted education workshops during their university courses also seemed to engage more frequently in more than half of the gifted friendly strategies as reported in the Adapted CPQ. Westberg and Daoust (2003) explained that university coursework may have required teachers to implement these strategies in their classrooms. Although more research is required, it seems that training needs to be looked at more specifically as to when and how it is carried out. The impact of in-service training may not be as effective as other forms. Teachers in this sample who reported having in-service training did not seem to engage in gifted-friendly practice. As Westberg and Daoust (2003) found formal training in gifted education to be more conducive to more gifted-friendly teaching in the classroom, they recommend “job embedded” training; these authors advocate for peer coaching in schools, collaborative action research projects and “critical friends groups.”

2. Implications and Suggestions for Future Research

2.1. A need for the gifted child to be understood

Having a misconstrued concept of giftedness can lead teachers to have inappropriate expectations of the gifted, putting these at risk (Galloway & Porath, 1997). Ambivalent attitudes towards gifted learners as regards to homogenous grouping, the lack of awareness related to gifted learners’ social experiences and attitudes that connote ambivalence found in this study have to be defied with appropriate professional

opportunities. Teachers' responses as given in the interviews have also shown uncertainties regarding the characteristics and identification of gifted children.

...she learns quickly but just in English and not in all subjects. So...I don't think she is a gifted student. (Teacher N)

When they are good at English, they are normally always not very good at other subjects. (Teacher G)

As Fleith (1999) suggests, teachers are often found to harbour ideas that gifted students have enough resources to develop their skills and abilities and acquire knowledge on their own. This is far from reality. This was often shown when interviewed teachers reported engaging students in advanced reading activities with very limited intervention and further extension of activities. Teachers also seemed to ensure that gifted learners carried out the same as all the other students before being given the possibility of further extension activities. Understanding that some gifted learners might not engage in tasks that are insufficiently challenging, become bored and become prone to underachieve is fundamental.

Troxclair (2013) related some of the ambivalence and negative attitudes found in her study to existing myths surrounding giftedness. Some of these myths may be the reasons behind the ambivalence encountered in both the Resistance to Objections, Ability Grouping and Rejection constructs. These myths include (a) the idea that gifted children can make it on their own; (b) teachers already challenge all children, so gifted children will be catered for in the regular classroom; (c) all children are gifted; and (d) acceleration is socially detrimental for gifted students; and e) that gifted children are popular, happy and liked by all (nagc. org).

The debate that revolves around what constitutes giftedness is so prominent and controversial as well as inconclusive that uncertainty in its identification and catering for these particular students is bound to exist. However, many milestones have been achieved over the last few decades and certain empirically sound common grounds regarding characteristics, identification procedures and ways of differentiating for gifted learners have been established. Teachers and educational establishments need accurate, research-based information support through professional development.

2.2. A need to change mindsets: Differentiation as non-negotiable for all learners at all times

Teachers today are faced with a variety of decisions and responsibilities that are very particular to the 21st century. This responsibility includes each and every learner in the classroom but the teacher may be focussed on working with only the least able in order to raise scores; aims of teachers may not be on learning but on the score on a single test. Winebrenner (2000) adds that teachers may be misreading academic scores as evidence that gifted students are learning. It is a teacher's responsibility to work towards the potential of all learners. Yet, differentiation as a tool to reach out to the gifted learners is being overlooked. Teachers in this study did not differentiate for their gifted learners. It is vital to shift the emphasis from state-mandated goals to learning. A teacher expresses her concerns:

We want positive results from students and we work more in order to help weaker students to have positive results. For example, here in the seventh grade we have to have an average of 89% of success rate in this school and that's a lot. With 22 students and a target of 89% leaves a very low margin for negative results. (Teacher G)

One of the reasons that teachers refrain from compacting is due to a fear that students may be harmed when carrying out standardised tests. However, a study carried out by Reis et al. (1998) showed that although 40%–50% of the curriculum was compacted for a sample of 436 students, high ability learners still maintained the same high end of year scores. Information such as this can help reassure teachers that are not differentiating due to misconceptions about the impact of compacting.

They sometimes get additional exercises or complex exercises but ... everyday life it's more what comes up spontaneously - not that they get completely different worksheets or anything. (Teacher H)

When teachers plan their classes, these need to take into account the diversity of learners. Differentiation needs to be proactive and not reactive. Systematic implementation of spontaneous strategies for the highly able in the classroom is not

working towards their potential. In fact, it is nothing but a form of negligence. Rather than being viewed as an extra, it needs to be considered and implemented at all times with forms of higher order thinking and questioning, enrichment, acceleration and different ability groupings.

Westberg and Daoust's study found that teachers who differentiated for their learners had an understanding of individual differences and did not see the class as a whole but as students grouped together yet having different levels of readiness. Teachers' responses in the interviews showed some evidence of viewing the gifted and other students in light of their uniqueness:

What I always try to have in mind is that they cannot be demotivated in my class. I keep finding something extra. (Teacher N)

The kind of perception that views the curriculum as the standard, may foment the idea of differentiation as being extra work and not as part of the process of catering for all the learners present in the classroom. A change of philosophy that views regular classes as bringing together children of the same age but different readiness levels, learning styles and preferences may be the solution.

A change in mindset needs to be developed: differentiation is non-negotiable during all times.

Both the above mentioned require professional development.

2.3. A need for professional development

We are not prepared to deal with everything that happens outside of the "normal" box. (Teacher J)

The results from this study indicated that secondary teachers of English harbour positive attitudes towards gifted education in what concerns understanding gifted needs and support and elitism and ambivalent regarding their social experiences and as well as ability grouping. The national panorama does not include specific gifted training for teachers or psychologists. Postgraduate courses in gifted education are practically non-existent and modules focusing on gifted education are not included neither in

undergraduate nor Masters courses (Fleith et al., 2010). When opportunities are provided, they are done so through workshops, seminars and congresses by gifted associations such as ANEIS (Associação Nacional para o Estudo Nacional da Sobredotação and APCS (Associação Portuguesa de Crianças Sobredotadas). To improve attitudes the Portuguese educational system must work towards provision of training. The correlation between training and attitudes reinforces the necessity for pre-service and in-service training (Hansen and Feldhusen, 1994; Lassig, 2003). Fleith, et al., (2010) go as far as stating that opportunities for professional development in Portugal are more tolerated than consciously promoted.

On international premises, various researchers have found that teacher education courses do not adequately prepare teachers to cater for their highly able (Hansen & Feldhusen, 1994; Tomlinson et al., 1994). Hence, one vital path to promoting inclusion of the gifted is to incorporate specific gifted education components and experience into university programmes. Not only might these opportunities dispel myths and misconceptions about the gifted and improve attitudes but instruction and coaching in appropriate strategies will also defy the current lack of differentiation taking place in Portuguese classrooms. The lack of training will ensue in the needs of this population of learners not being met in the classroom (Archambault et al., 1993; Westberg et al., 1993). In the present study, when teachers who had a gifted student in their classrooms reported having endorsed gifted education during their university courses, they were found to promote more differentiating strategies to meet the needs of their learners.

In-service training should be able to provide teachers with information about the laws and regulations regarding gifted education, the range of definitions and characteristics inherent to this very heterogeneous population of learners, bridge current classroom practices with best practice curricular and instructional modifications, ways for assessment as well as issues concerning double-exceptionality, gender, ethnic minorities and language diverse groups (Robinson et al., 2007). In-service training has found to be related to overall positive attitudes towards giftedness (Lassig, 2009). Brighton (2003) claimed that there is a relationship between teachers' beliefs towards diversity and addressing different learners' needs and the likelihood of successful curricular and instructional modifications. Tomlinson et al. (1994) also highlight the importance of continuous professional opportunities as well as time in developing differentiation measures as these are developed gradually amidst a supportive network.

One-off opportunities for development without hands-on experimentation and regular follow-up may render in-service training obsolete. It is the continuous process that will increase opportunities for success. Peer-coaching and consultation are other forms of in-service supportive measures.

Gagné and Nadeau's (1991) attitude scale, Archambault et al.'s CPQ and the COS-R can be used to support both a pre and in-service training program. Schools can customise training programs with the implementation of all three instruments as these would help shed light on less favourable attitudes, myths and misconceptions as well as draw attention to current strategies which can be tweaked and optimised to meet the needs of the gifted. Certainly, it would raise further awareness, spark debate as well as lead teachers to question their own attitudes and teaching styles and develop more sensitive, inclusive responses.

2.4. A need to research subject-specific strategies

On a national level, there seems little research as yet regarding curriculum modifications and strategies that can be carried out in the classroom. Although some research has been pursued, focus has been mainly on acceleration and enrichment. On an international level, continued research to understand best practice strategies for the gifted is vital. Although there have been numerous studies analysing the impact of grouping dynamics on gifted children, little research has been carried out to understand the impact of student choice, mentoring, multi-modal learning and other less known strategies. Additionally, technology is a tool which can be used effectively to differentiate. Although emphasis was not placed on this component in this study, differentiation strategies with the use of information technology for the gifted would be particularly pertinent. Empirical studies that highlight perspectives and preferences of learners would also bring us closer to ensuring gifted students' needs are met.

Best practice strategies for the gifted also need to be examined according to specific subjects. Although encouraging higher order thinking skills are recommended, it might be worthwhile to try to understand these in the light of its implementation in maths, science, language learning and other subjects. A very positive step was taken by ANEIS (*Associação Nacional de Estudos e Intervenções na Sobredotação*) which published a handbook for teachers *Guia para Professores e Educadores: Altas*

capacidades e sobredotação, Compreender, Identificar e Actuar; this handbook, published in 2017, includes a section on recommended practices in virtue of students' learning styles (see Rocha, 2017). However, a vital step for secondary school teachers would involve the development of subject-specific range of strategies. Research in this field would benefit gifted education tremendously as it would bring differentiation a step closer to teachers.

As much as possible, research into best practice strategies should also consider practical factors such as number of weekly subject teaching hours and numbers of students. How can we cater for gifted learners when they have a particular subject for four hours a week? What kind of strategies would work in these cases? What alterations and modifications are impractical? Cashion and Sullenger (2000) have referred to the lack of time, class size and lack of support as barriers to long-term differentiation practices.

The work is the same. What I do is: I have lots of small books in English with stories and if he finishes it I can give him one so he can stay there and read it, because that is what he likes, he loves to read – really huge books and everything. But the rest is the same. Why? Because we have 50 minutes lessons, 30 students in the classroom and I have four students with special needs - but not the kind of his needs - and I must be here, and there, and there... because the class don't have the same level, there are different levels. (Teacher O)

Further research into what is happening inside the classrooms is warranted. During the classroom observations as well as the interviews carried out during the course of the present study, teachers were found to use gifted learners systematically as class assistants. It is important to dissipate strategies which are counterproductive for this population of learners. Gifted education research needs to be able to bridge the gap between what should not be happening and what should happen, while also taking into account practical aspects of teaching.

A recent development which might help to meet the needs of the gifted is *Projeto de Autonomia e Flexibilidade Curricular* (Despacho nº 5908/2017, de 5 de Julho). Some private and public schools will be able to use a percentage of the school

hours to manage the curriculum flexibly with the aim of instilling higher competencies using schoolwide enrichment clusters. As the enrichment cluster model is not a set program, each school can carry out a needs analysis based on their specific areas of weaknesses and find their own areas of competencies that can be developed through these clusters. With some perseverance and creativity, teachers can use the Enrichment Cluster Model to motivate and challenge students at their own paces while also providing gifted and talented learners the opportunities they deserve.

2.5. A need to research attitudes towards the gifted

It was not possible to use the data obtained in the OGE scale for both the Acceleration and Social Value Constructs. Further studies are required to understand teachers' attitudes regarding these two crucial aspects. Additionally, attitudes should be measured on a nationwide scale in both public and private schools. Further scales which are appropriate for the Portuguese context should be proposed. It is also suggested that a variety of data collection techniques be used (surveys, interviews and observations) so that a clearer image can be discerned. The impact of different types of training, gender, self-perception as gifted also need further research.

2.6. A need to for more supportive leadership

It is not only important to carry out research on teachers' attitudes but also on school administrators' beliefs and perceptions of the gifted. A strong leadership with clear goals is essential. Critical awareness of emerging educational issues goes hand in hand with embracing the gifted. According to the findings from a qualitative study carried out by Hertberg-Davis and Brighton (2006), principals play a key role in teachers' willingness and ability to differentiate instruction.

As these researchers posit, teachers need administrators support not only for the resources required to differentiate for the gifted but also for emotional support. Principals who communicated their vision in embracing all children as well as demonstrated understanding the difficulty of the task and encouraged teachers to take a risk were found to have a more positive impact. These principals also allowed time as a factor for realistic teacher growth. In Rodrigues and Antunes' (2012) study, it was

found that more than three quarters of the teachers did not know the legislation on giftedness; principals have a key role in counteracting this lack of information.

2.7. A need for supportive laws

To a certain extent, giftedness is still uncharted territory in Portugal. Nonetheless, great leaps have been taken considering that the first conference on gifted learning only took place in 1986 (Miranda & Almeida, 2012).

Portuguese legislation, as per Bastos (2009) takes into account the disabled child but does not contemplate the gifted learner in what concerns his/her multi-dimensional identity; the possibility of acceleration is not sufficient. The educational system is still lacking in catering for our most able children. The Portuguese educational system needs to address inclusion of the gifted population by highlighting the need to make alterations to schools and teaching to embrace all gifted learners, bearing that within the group there is tremendous variance. Measures that encompass only enrichment or only acceleration may not suffice. A student who is accelerated with curricular adaptations that do not involve complex thought is not being adequately catered for. On the other hand, an exceptionally gifted child might not be served for adequately only with enrichment. Any one single measure can be redundant in that populations of gifted children are heterogeneous and display an array of talents and specificities and excel in some academic areas and not others. Acceleration may be an option for students that are gifted in all academic areas but as a multi-dimensional concept, gifted children require a variety of different responses. Enrichment activities are also encouraged by the legislation yet in reality are seldom implemented. Considering that 3%-5% (Pocinho, 2009) or 3%-10% as contemplated by the 2008 Eurydice Report of our schoolchildren are gifted, a range of options need to be made available.

Supportive legislative measures regarding the identification of the gifted could encourage systematic differentiation taking place in the classroom. Krijan and Boric (2014) also suggest that the lack of formal testing of gifted learners might influence the systematic implementation of differentiating strategies; 32% of the teachers that participated in the present study reported having gifted learners in their classrooms. This group consisted of learners that had been formally identified or informally identified by the teachers.

A sliver of hope lies in the following document: Alteração ao Decreto-lei n.º 3/2008, de 7 de janeiro. This document contemplates gifted learners' by promoting concepts of equity, inclusion, diversity, personalisation and flexibility. Hence, one of its major emphases lies in curricular modifications to meet the needs of all learners. Curricular modifications and alterations are paramount. The impact of these measures on professional development, university courses and training and classroom practices can only have positive repercussions on the learning of the gifted.

3. Critical Reflections

What we should be aiming towards is a comprehensive, grade bound program that can be implemented in different subjects across the curriculum. Venturing beyond theory and into practice, by implementing more defined strategies can aid in raising awareness about how gifted students can be better embraced in Portugal, a road which we have just set out on. Portugal has welcomed models from abroad and demonstrates openness in terms of working proactively towards real inclusion (Costa & Rodrigues, 1999). According to a comparative study of 21 European countries (Monks & Pfluger, 2005) the political recognition of giftedness in Portugal has been encouraging. Various projects are being carried out as well as some Masters and PhD level theses. However, according to Fleith et al. (2010) these tend to focus primarily on the identification of giftedness. In general, legislation seems to offer acceleration, or skipping of grades as an educational strategy for the gifted and talented. Enrichment options are also encouraged by legislation, yet seldomly used. It is also worthwhile highlighting that these implementation measures are left to the discretion of the schools, and possibly to the discretion of individual teachers. The Portuguese research community urges the need to generalise and apply the legislation to gifted students and broaden the range of measures that educators can carry out to embrace these gifts within our classrooms.

Real, quality learning opportunities can be diminished and inequities created due to insufficient curriculum differentiation. Equity education can be achieved with the means of a challenging curriculum (Gentry, Rizza, & Gable, 2001). Moreover, there is growing agreement that what constitutes high quality curriculum for the high achievers does so for all learners (Hockett, 2009).

Making differentiation work, demystifying the concept of giftedness, more appropriate school leadership, working with possible erroneous teacher beliefs and attitudes as well as moderating excess concerns about standardised scores will make schooling more just for all. In this manner, we are committed to driving up standards for all in this era of greater educational accountability. In this manner, we are embracing every child's right to be who they are in this world replete with diversity. We are also enabling every child to experience the joy in learning.

BIBLIOGRAPHY

- Albergaria, F., & Bahia, S. (2012/2013). Desafios e necessidades dos professores na resposta a alunos sobredotados em contexto de sala de aula. *Sobredotação*, 13/14, 66-89.
- Alencar, E. S. (2003). O aluno com altas habilidades no contexto da educação inclusiva. *Movimento*, 7, 60-69.
- Alencar, E. S. (2007). Características sócio-emocionais do superdotado: Questões atuais. *Psicologia em Estudo*, 12(2), 371-378.
- Alencar, E. S. (2014). Ajustamento emocional e social do superdotado: Fatores correlatos. In F. H. R. Piske et al. (Orgs.), *Altas habilidades/Superdotação (AH/SD): Criatividade e emoção* (pp. 149-162). Curitiba: Juruá.
- Almeida, L. S. (1994). *Inteligência: Definição e medida*. Aveiro: Centro de Investigação, Difusão e Intervenção Educacional.
- Almeida, L. S., Araujo, A. M., Sainz-Gomez, M., & Prieto, M. D. (2016). Challenges in the identification of giftedness: Issues related to psychological assessment. *Anales De Psicologia*, 32(3), 621-627. doi: 10.6018/analesps.32.3.259311
- Almeida, L. S., Costa-Lobo, C., Almeida, A. I. S., Rocha, R. S., & Piske, F. H. R. (2017). *Processos afetivos e cognitivos de superdotados e talentosos* (pp. 15-39). Curitiba: Editora Prismas.
- Almeida, L. S., Fleith, D. S., & Oliveira, E. P. (2013). *Sobredotação: Respostas educativas*. Braga: Associação para o Desenvolvimento da Investigação em Psicologia & Educação.
- Almeida, L. S. & Nogueira, C. (1988). As percepções dos professores sobre o conceito da sobredotação. *Jornal de Psicologia*, 7, 1.
- Alvermann, D. E., & Phelps, S. F. (1998). *Content reading and literacy* (2nd ed.). Needham Heights, MA: Allyn & Bacon.
- Anderson, L.W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of bloom's taxonomy of educational objectives*. New York: Longman.
- Angers, M. (1992). *Initiation pratique à la methodologie des sciences humaines*. Montreal: Les Éditions de la Chenelière.
- Antunes, A. (2008). *O apoio psico-educativo a alunos com altas habilidades: Um programa de enriquecimento numa escola inclusiva* (Unpublished doctoral dissertation). Universidade do Minho, Braga, Portugal.
- Antunes, A., & Almeida, L. (2008). O atendimento educativo dos sobredotados: Ritmos diferentes nos Estados Unidos, na Europa e em Portugal. *Diversidades*, 19, 4-8.
- Antunes, A. M. P., & Almeida, L. S. (2009). Práticas educativas na sobredotação:

- Diferenciação curricular e estratégias complementares. *Psicologia Educação e Cultura*, 13(1), 157-168.
- Arauz, P. E. (2013). Inquiry-based learning in an English as a foreign language class: A proposal. *Revista De Linguas Modernas*, 19, 479-485.
- Archambault, F. X., Westberg, K. L., Brown, S. W., Hallmark, B. W., Zhang, W., & Emmons, C. L. (1993). Classroom practices used with gifted third and fourth grade students. *Journal for the Education of the Gifted*, 16(2), 103-119.
- Archbald, D. A. (1991). Authentic assessment: Principles, practices, and issues. *School Psychology Quarterly*, 6(4), 279-293.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European journal of special needs education*, 17(2), 129-147.
- Aydın, F., Coşkun, M., Kaya, H., and Erdönmez, İ. (2011). Gifted students' attitudes towards environment: A case study from Turkey. *African Journal of Agricultural Research*, 6(7), 1876-1883. doi: 10.5897/AJAR11.288
- Bahia, S. (2007). *Psicologia da Criatividade. Manual de apoio para a disciplina de Psicologia da Criatividade do Mestrado em teatro e comunidade*. Amadora: ESTC/IPL.
- Bahia, S., & Oliveira, E. P. (2013). Diferenças individuais e necessidades de aprendizagem. In F. H. Veiga (Coord.), *Psicologia da educação: Teoria, investigação e aplicação* (pp.583-631). Lisbon: Climepsi.
- Bain, S. K., Bliss, S. L., Choate, S. M., & Brown, K. S. (2007). Serving children who are gifted: Perceptions of undergraduates planning to become teachers. *Journal for the Education of the Gifted*, 30(4), 450-478.
- Balbinotti, M. (2005). Para se avaliar o que se espera: Reflexões acerca da validade dos testes psicológicos. *Aletheia*, 21, 43-52.
- Bangel, N. J., Moon, S. M., & Capobianco, B. M. (2010). Preservice teachers' perceptions and experiences in a gifted education training model. *Gifted Child Quarterly*, 54(3), 209-221.
- Bastos, A. (2009). *A percepção dos professores sobre os alunos sobredotados versus o alheamento da escola* (Unpublished master's thesis). Escola Superior de Educação de Paula Frassinetti, Porto, Portugal.
- Bégin, J., & Gagné, F. (1994a). Predictors of attitudes toward gifted education: A review of the literature and a blueprint for future research. *Journal for the Education of the Gifted*, 17, 61. doi: 10.1177/016235329401700206
- Bégin, J., & Gagné, F. (1994b). Predictors of a general attitude toward gifted education. *Journal for the Education of the Gifted*, 18(1), 74-86.
- Bernard, H. R. (1988). *Qualitative methods in cultural anthropology*. Newbury Park,

CA: Sage.

- Bishop, J. H. (1989). Why the apathy in American high schools? *Articles and chapters. Paper 31*. Retrieved from <http://digitalcommons.ilr.cornell.edu/articles/31>
- Bishop, K. (2000). The research processes of gifted students: A case study. *Gifted child quarterly*, 44(1), 54-64.
- Bisqueira, R. (1987). *Introducción a la estadística aplicada a la investigación educativa: um enfoque informático com los paquetes BMDP y SPSS*. Barcelona: PPU.
- Blair, J. (2000). ETS study links effective teaching methods to test-score gains. *Education Week*, 20(8), 24.
- Blakey, M., & Spence, S. (1990). *Developing metacognition*. Syracuse, NY: ERIC Resources Information Center [ED327218].
- Bloom, B. S. (1956). Taxonomy of educational objectives. In *Cognitive domain* (pp. 20-214). New York: McKay.
- Borland, J. H. (1996). *About Planning and Implementing Programs for the Gifted*. University of New South Wales, Faculty of Professional Studies.
- Borland, J. H. (2005). Gifted education without gifted children. Conceptions of giftedness, 1-19.
- Brigham, F. J., & Bakken, J. P. (2014). Assessment of individuals who are gifted and talented. In *Gifted Education: Current Perspectives and Issues* (pp. 21-40). Emerald Group Publishing Limited.
- Brighton, C. M. (2003). The effects of middle school teachers' beliefs on classroom practices. *Journal for the Education of the Gifted*, 27(2-3), 177-206.
- Brown, E., Avery, L., & VanTassel-Baska, J. (2003). *Gifted policy analysis study for the Ohio Department of Education*. Williamsburg, VA: The Center for Gifted Education.
- Bryman, A., & Cramer, D. (1999). *Quantitative data analysis: A guide for social scientists*. New York: Routledge.
- Candeias, A., Duarte, M., Araújo, L., Albano, A., Silvestre, A., Santos, A. F., Arguelles, F. & Claudino, P. (2003). Avaliação da sobredotação: Percepções parentais. *Sobredotação*, 4(1), 75-93.
- Caldwell, D. W. (2012). Educating gifted students in the regular classroom: Efficacy, attitudes, and differentiation of instruction.(Doctoral Dissertation). Georgia Southern University, Georgia, USA.
- Carroll, J. B. (1993). Human cognitive abilities: A survey of factor-analytic studies. New York: Cambridge University Press. Retrieved from [http://lst-iiiep.iiiep-unesco.org/cgi-bin/wwwi32.exe/\[in=epidoc1.in\]/?t2000=003139/\(100\)](http://lst-iiiep.iiiep-unesco.org/cgi-bin/wwwi32.exe/[in=epidoc1.in]/?t2000=003139/(100)). doi: 10.1017/CBO9780511571312.

- Cashion, M., & Sullenger, K. (2000). "Contact us next year": Tracing teachers' use of gifted practices. *Roeper Review*, 23(1), 18-21.
- Castelló, T. (2005). Aproximación a la evaluación de la superdotación y los talentos. En M. Sánchez-Cano & J.B. Bicas (Coords.). *La evaluación psicopedagógica* (pp. 382-415). Barcelona: Graó
- Cheng, P. (1993). Metacognition and giftedness: The state of the relationship. *Gifted Child Quarterly*, 37(3), 105-112. doi:10.1177/001698629303700302
- Chinedu, C. C., Olabiyi, O. S., & Kamin, Y. B. (2015). Strategies for improving higher order thinking skills in teaching and learning of design and technology education. *Journal of Technical Education and Training*, 7(2), 35-43.
- Chuska, K. (2005). *Gifted learners K-12*. Bloomington, IN: National Education Services.
- Clapham, M. M. (2003). The development of innovative ideas through creativity training. In *The international handbook on innovation* (pp. 366-376). Oxford: Elsevier Science.
- Clark, B. (2002). *Growing up gifted* (6th ed.). Upper Saddle River, New Jersey: Merrill Prentice Hall
- Clark, C. (1996). Working with able learners In regular classrooms in the United Kingdom. *Gifted and Talented International*, 11(1), 34-38.
- Cohen, E. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64, 1-35.
- Coil, C. (2004). *Standards-based activities and assessments for the differentiated classroom*. Pieces of Learning. Retrieved from <http://giftedguru.com/wp-content/uploads/2016/01/TAGTCriteriaCC.pdf>
- Coil, C. (2005). *Teaching tools for the 21st century* (3rd rev. ed.). Saline, MI: McNaughton & Gunn.
- Colangelo, N., Assouline, S. G., & Gross, M. U. (2004). A Nation Deceived: How Schools Hold Back America's Brightest Students. The Templeton National Report on Acceleration. Volume 2. Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development (NJ1).
- Colangelo, N., & Davis, G. A. (2003). *Handbook of gifted education*. (3rd ed.) Boston: Pearson Education.
- Coleman, M.R. & Gallagher, J. (1995). State identification policies: Gifted students from special populations. *Roeper Review*, 17(4), 268-275.
- Copenhaver, R. W., & McIntyre, D. J. (1992). Teachers' perceptions of gifted students. *Roeper Review*, 14, 151-153.
- Costa, A. Rodrigues, D. (1999). Special Education in Portugal. *European Journal of Special Needs Education*, 14(1), 70-89.

- Courtenay, B. (1989). *The power of one*. New York: Ballantine.^{[1][SEP]}
- Cramond, B. (1993). Speaking and listening: Key components of a complete language arts program for the gifted. *Roeper Review*, 16(1), 44-49.
- Cramond, B. (2004). Can we, should we, need we agree on a definition of giftedness?. *Roeper Review*, 27(1), 15-16. doi: 10.1080/02783190409554282
- Cramond, B., & Martin, C. E. (1987). Inservice and preservice teachers' attitudes toward the academically brilliant. *Gifted Child Quarterly*, 31(1), 15-19.
- Cronbach, L., & Meehl, P. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.
- Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. New York: Cambridge University Press.^{[1][SEP]}
- Dabrowski, K. (1964). *Positive disintegration*. London: Little, Brown & Company.
- Dana, T. M., & Tippins, D. J. (1993). Considering alternative assessment for middle level learners. *Middle School Journal*, 25(2), 3-5.
- Daniels, V. I., & McCollin, M. J. (2010). The identification of students with gifts and talents. In P. Peterson, E. Baker & B. McGaw (Eds), *Encyclopedia of education* (3rd ed., vol. 2, pp.870- 875). Oxford: Academic Press.
- Dassa, C. (1999). *Analyse multidimensionnelle exploratoire et confirmative*. Montreal: Univesité de Montreal.
- Davis, G. A., & Rimm, S. B. (2004). *Education of the gifted and talented*. Boston, MA: Pearson Education Press.
- DeLacy, M. (1996). Acceleration for gifted students: A background paper created for the Portland public school district talented and gifted advisory committee. Retrieved from <http://www.tagpdx.org/accelera.htm>
- Delandtsheer, J. (2011). *Making all kids smarter: Strategies that help all students reach their potential*. Thousand Oaks, CA: Corwin.
- Delisle, J. R. (2003). To be or to do: Is a gifted child born or developed? *Roeper Review*, 26, 12-13.
- Delou, C. M. C., Machado, S., Mazza-Guimarães, I., & Castro, H. C. (2012). School of inclusion: The contribution of a federal university to the inclusive education. *Advances in education*, 1, 4-10.
- Despacho 18061/2010, of 3 December 2010. *Diário da República*, 234 - 2.a série. Secretaria-Geral.^{[1][SEP]}
- Despacho Normativo 24/A, of 6 December 2012. *Diário da República*, 236 - 2.a série. Ministério da Educação e Ciência, Gabinete do Ministro.^{[1][SEP]}
- Despacho n.º 5908/2017, *Diário da República*, 2ª série, nº 128, 5 de julho de 2017, 13881-13890

- Deveau, T. (2006). Strategies for gifted second language learners. *Academic Exchange Quarterly*, 10(1), 265-271.
- Dinnocenti, S. T. (1998). Differentiation: Definition and description for gifted and talented. *National Research Center/Gifted and Talented Newsletter*, Spring. Retrieved from <http://www.sp.uconn.edu/~nrcgt/news/spring98/sprng985.html>
- Donerlson, E. (2008). *Elementary school teachers' attitudes and beliefs toward teaching gifted students in a heterogeneous classrooms*. (Doctoral dissertation). Walden University, Minneapolis, USA.
- Drain, D. (2008). *Teachers' attitudes and practices toward differentiating for gifted learners in K – 5 general education classrooms*. (Doctoral dissertation). The College of William and Mary, Virginia, USA
- Drain, D. (2009). The Use of the ICM in Mapping Best Practice in Curriculum and Instruction for the Gifted. *Leading Change*, 14-20.
- Eurydice (2008). *Educação de Sobredotados na Europa*. Lisboa Gabinete de Estatística e Planeamento da Educação. Retrieved from https://www.edufor.pt/aenelas-pic/imagens/Sobredotados_na_Europa.pdf
- Fatemipour, H., & Kordnaeej, M. (2014). The effect of synectics and journal creative writing techniques on EFL students' creativity. *International Journal of Language Learning and Applied Linguistics World*, 7(3), 412-424.
- Feldhusen, J. F. (1989). Synthesis of research on gifted youth. *Educational Leadership*, 46, 6-11.
- Feldhusen, J. F. (2005). Giftedness, talent, expertise, and creative achievement. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 64–79). New York, NY: Cambridge University Press.
- Feldhusen, J. F., & Kolloff, M. B. (1988). A three-stage model for gifted education. *Gifted Child Today*, 11(1), 14-20. doi: 10.1177/107621758801100104
- Feldhusen, J. F., & Moon, S. M. (1992). Grouping gifted students: Issues and concerns. *Gifted Child Quarterly*, 36(2), 63-67. doi:10.1177/001698629203600202
- Feldman, D.H. (1993). Child prodigies: A distinctive form of giftedness. *Gifted Child Quarterly*, 37, 188-193.
- Feng, A., VanTassel-Baska, J., Quek, C., Bai, W., & O'Neill, B. (2004). A longitudinal assessment of gifted students' learning using the integrated curriculum model (ICM): Impacts and perceptions of the William and Mary language arts and science curriculum. *Roeper Review*, 27, 78-83.
- Fertig, C. (2004). *Raising a gifted child: A parenting success handbook*. Prufrock Press.
- Fiedler, E., Lange, R. E., & Winebrenner, S. (2002). In search of reality: Unraveling the myths about tracking, ability grouping, and the gifted, *Roeper Review*, 24(3),

- Fleith, D. S. (1999). Psicologia e educação do superdotado: definição, sistema de identificação e modelos de estimulação. *Cadernos de Psicologia da SBP*, 5, 37-50.
- Fleith, D. S. (2007). Altas habilidades e desenvolvimento socioemocional. In D. S. Fleith & E. M. Alencar (Eds.), *Desenvolvimento de talentos e altas habilidades: Orientação a pais e professores* (pp. 41-50). Porto Alegre: Artmed.
- Fleith, D. S., Almeida, L. S., Alencar, E. M., & Miranda, L. (2010). Educação do aluno sobredotado no Brasil e em Portugal: Uma análise comparativa. *Rev. Lusófona de Educação*, 16, 75-88.
- Ford, M. (2005). *Differentiation through flexible grouping: Successfully reaching all readers*. Naperville: Learning Point Associates.
- Fraenkel, J. R., & Wallen, N. E. (2008). *Introduction to qualitative research: How to design and evaluate research in education* (7th ed.). Boston, MA: McGraw-Hill International Edition.
- Fraser, D. (2003) From the playful to the profound: What metaphors tell us about gifted children. *Roeper Review*, 25(4), 180-184.
- Gagné, F. (1985). Giftedness and talent: Reexamining a reexamination of the definitions. *Gifted Child Quarterly*, 29, 103-112. doi: 10.1177/001698628502900302.
- Gagné, F. (1995). From Giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review*, 18(2), 103-111.
- Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, 15(2), 119-147.
- Gagné, F. (2018). Attitudes toward gifted education: Retrospective and prospective update. *Psychological Test and Assessment Modeling*, 60(2), 1-27.
- Gagné, F., & Nadeau, L. (1985). Dimensions of attitudes towards giftedness. In A. H. Roldan (Ed.), *Gifted and talented children, youth, and adults: Their social perspective and culture* (pp. 148- 170). Monroe, NJ: Trillium.
- Gagné, F., & Nadeau, L. (1991). *Brief presentation of Gagné and Nadeau's attitude scale "Opinions about the gifted and their education."* Unpublished manuscript. Montreal, Canada: University of Quebec.
- Gagne, R. M. (1985). *The conditions of learning and theory of instruction*. New York: CBS College Publishing.
- Gallagher, J. J. (1994). Current and historical thinking on education for gifted and talented students. In P. O'Connell-Ross (Ed.), *National excellence: A case for developing America's talent. An anthology of readings* (pp. 83-107). Washington, DC: Office of Educational Research and Improvement.

- Gallagher, J. J., & Courtright, R. D. (1986). The educational definition of giftedness and its policy implications. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (p. 93-111). Cambridge: Cambridge University Press.
- Gallagher, J. J., & Gallagher, S. (1994). *Teaching the gifted child* (4th ed.). Boston: Allyn and Bacon.
- Galloway, B., & Porath, M. (1997). Parent and teacher views of gifted children's social abilities. *Roeper Review*, 20(2), 118-121.
- Galton, F. (1869). *Hereditary genius*. London: Macmillan.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Books.
- Garfinkel, A., & Prentice, M. (1985). Foreign language for the gifted: Extending cognitive dimensions. ERIC, ED 262 641. Retrieved from <https://files.eric.ed.gov/fulltext/ED262641.pdf>
- Gentry, M., & Keilty, B. (2004). Rural and suburban cluster grouping: Reflections on staff development as a component of program success. *Roeper Review*, 26(3), 147-155.
- Gentry, M., Rizza, M. G., & Gable, R. K. (2001). Gifted students' perceptions of their class activities: Differences among rural, urban, and suburban student attitudes. *Research article*, 45(2), 115-129. doi:10.1177/001698620104500205
- Gentry, M., Rizza, M. G., & Owen, S. V. (2002). Examining perceptions of challenge and choice in classrooms: The relationship between teachers and their students and comparisons between gifted students and other students. *Gifted Child Quarterly*, 46(2), 145-155. doi: 10.1177/001698620204600207
- Gentry, M., & Springer, P. M. (2002). Secondary student perceptions of their class activities regarding meaningfulness, challenge, choice, and appeal: An initial validation study. *Journal of Secondary Gifted Education*, 13(4), 192-204.
- George, D. (1997). *The challenge of the able child* (2nd ed.). London: David Fulton.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Goodlad, J. I. (1983). A Study of Schooling: Some Findings and Hypotheses. *Phi Delta Kappan*, 64(7), 465-70.
- Gottfried, A. E., & Gottfried, A. W. (1996). A longitudinal study of academic intrinsic motivation in intellectually gifted children: Childhood through early adolescence. *Gifted Child Quarterly*, 40, 179-183.
- Gray, R., McCallum, R. S., & Bain, S. K. (2009). Language-reduced screening for giftedness. *Journal for the Education of the Gifted*, 33(1), 38-64.

- Grinder, R.E. (1985). The gifted in our midst: By their divine deeds, neuroses, and mental test scores we have known them. In F. D. Horowitz & M. O'Brien (Eds.), *The gifted and talented: Developmental perspectives* (pp. 5–34). Washington, DC: American Psychological Association.
- Gross, M. (2004) *Exceptionally gifted children*. (2nd ed.). London and New York: Routledge.
- Guilford, J. P. (1967). *The nature of human intelligence*. New York, NY, US: McGraw-Hill.
- Guskin, S. L., Peng, C.-Y. J., & Simon, M. (1992). Do teachers react to "multiple intelligence"? Effects of teachers' stereotypes on judgment and expectancies for students with diverse patterns of giftedness/talent. *Gifted Child Quarterly*, 36(1), 32-37.
- Handa, C. (2015). Imagination first: Unleash the power of possibility. *Gifted Education International*, 31(2), 117-141.
- Hansen, J. B., & Feldhusen, J. F. (1994). Comparison of trained and untrained teachers of gifted students. *Gifted Child Quarterly*, 38(3), 115-121.
- Hare, V. C., & Pulliam, C. A. (1980). Teacher questioning: A verification and an extension. *Journal of Reading Behavior*, 12(1), 69-72.
- Hattie, J. A. C. (2012). *Visible learning for teachers: Maximizing impact on learning*. New York, NY: Routledge.
- Hayes, M. L., & Sloat, R. S. (1990). Suicide and the gifted adolescent. *Journal for the Education of the Gifted*, 13(3), 229-244.
- Heacox, D. (2002). *Differentiating instruction in the regular classroom: How to reach and teach all learners, Grades 3-12*. Minneapolis, MN: Free Spirit Publishing.
- Heacox, D. (2012). *Differentiating instruction in the regular classroom: How to reach and teach all learners (Updated anniversary edition)*. Minneapolis: Free Spirit Publishing.
- Heller, K. A. (2004). Identification of gifted and talented students. *Psychology Science*, 46(3), 302-323.
- Henderson, L. (2004) Unleashing talent: An examination of VanTassel-Baska's integrated curriculum model. *Postscripts*, 5(1), 54-73.
- Heng, M. (1994). Promoting metacognition in gifted learners. *Source Teaching and Learning*, 15(1), 7-11.
- Hertberg-Davis, H. L., Brighton, C. M. (2006). Support and sabotage: Principals' influence on middle school teachers' responses to differentiation. *Journal of Secondary Gifted Education*, 17(2), 90-102.
- Hockett, J. A. (2009). Curriculum for highly able learners that conforms to general education and gifted education quality indicators. *Journal for the Education of*

- the Gifted*, 32(3), 394-440.
- Hocutt, A. M. (1996). Effectiveness of special education: Is placement the critical factor?. *The future of children*, (6)1,77-102.
- Hoh, P. (2005). The linguistic advantage of the intellectually gifted child: An empirical study of spontaneous speech. *Roeper Review*, 27(3), 178-185.
- Hollingworth, L. S. (1942). *Children above 180 IQ Stanford-Binet: Origin and development*. Yonkers-on-Hudson, NY: World Book.
- Horn, J. L., & Cattell, R. B. (1966). Refinement and test of the theory of fluid and crystallized general intelligences. *Journal of Educational Psychology*, 57(5), 253-270. doi:10.1037/h0023816
- Hoyt, D. P. (1965). *The relationship between college grades and adult achievement: A review of the literature* (Research Report No. 7). Iowa City, IA: American College Testing Program.
- Huss, J. (2006). Gifted education and cooperative learning: Amiss or a match? *Gifted Child Today*, 29(4), 19-23.
- Institute for Educational Leadership. (2001). *Leadership for student learning: Redefining the teacher as leader*. Washington, DC: Author.
- Jauk, E., Benedek, M., Dunst, B., & Neubauer, A. (2013). The relationship between intelligence and creativity: New support for the threshold hypothesis by means of empirical breakpoint detection. *Intelligence*, 41, 212-221. doi: 10.1016/j.intell.2013.03.003
- Jensen, A. R. (1998). *The g factor: The science of mental ability*. Westport, CN: Praeger.
- Jiménez, R. B. (1997). *Necessidades educativas especiais*. Lisbon: Dinalivro
- Johnsen, S. & Ryser, G. (1996). An Overview of Effective Practices with Gifted Students in General-Education Settings. *Journal for The Education of The Gifted*, 19, 379-404. doi: 10.1177/016235329601900402
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1993). *Cooperation in the classroom* (6th ed.). Edina, MN: Interaction Book Company.
- Jones, J. C. (1992). *Design methods*. New York: John Wiley & Sons.
- Jung, J. Y. (2014). Predictors of attitudes to gifted programs/provisions: Evidence from preservice educators. *Gifted Child Quarterly*, 58(4), 247-258.
- Junge, M. E., & Dretzke, (1995). Mathematical self-efficacy gender differences in gifted/talented adolescents. *Gifted Child Quarterly*, 39(1), 22-26. doi: 10.1177/001698629503900104
- Kanevsky, L. (2011). What types of differentiation do students want? *Deferential Differentiation*, 55(4), 279-299. doi: 10.1177/0016986211422098

- Kaufman, J. C., Kaufman, S. B., Beghetto, R. A., Burgess, S. A., & Persson, R. S. (2009). Creative giftedness: Beginnings, developments, and future promises. In *International handbook on giftedness* (pp. 585-598). Dordrecht: Springer.
- Kaufman, S. B., & Sternberg, R. J. (2007). Giftedness in the Euro-American culture. In: S. N. Phillipson, & M. McCann (Eds.). *Conceptions of giftedness: Sociocultural perspectives* (pp. 377-412). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kaufman, S. B., & Sternberg R. J. (2008). Conceptions of giftedness. In S. I. Pfeiffer (Ed.), *Handbook of giftedness in children* (pp. 71-91). Boston, MA: Springer.
- Kearney, K. (1996), Summer/Fall). Highly gifted children in full inclusion classroom. *Highly Gifted Children*, 12(4), 1-5.
- Knight, B. A. (1995). The Influence of Locus of Control on Gifted and Talented Students. *Gifted Education International*, 11(1), 31-33.
- Kniveton, B. H. (2004). A study of perceptions 'significant others' hold, of the inclusion of 'children with difficulties' in mainstream classes. *Educational studies*, 30(3), 331-343.
- Krijan, I., & Borica, E. (2014). Teachers' attitudes towards gifted students and differences in attitudes regarding the years of teaching. *Croatian Journal of Education*, 17(1), 165-178. doi: 10.15516/cje.v17i0.1490
- Kulik, J. A., & Kulik, C. C. (1984). Effects of accelerated instruction on students. *Review of Educational Research*, 54, 409-425.
- Kulik, J. A., Kulik, C.-L. C. (1992). Meta-analytic findings on grouping programs. *Gifted Child Quarterly*, 36(2), 73-77. doi:10.1177/001698629203600204
- Kuo, C.-C., J. Maker, F.-L. Su, & Hu, C. (2009). Identifying young gifted children and cultivating problem solving abilities and multiple intelligences. *Learning and Individual Differences* 20(4), 365-379.
- Kupermintz, H. (2003). Teacher effects and teacher effectiveness: A validity investigation of the Tennessee Value-Added Assessment System. *Educational Evaluation and Policy Analysis*, 25, 287-298.
- Lai, E. R. (2011). *Metacognition. A Literature Review*. Pearson Research Reports. Retrieved from <http://www.pearsonassessments.com/>
- Lassig, C. J. (2003). Gifted and talented education reforms: Effects on teachers' attitudes. In Bartlett, B. and Bryer, F. and Roebuck, D. (Eds.), *Proceedings 1st Annual International Conference on Cognition, Language, and Special Education Research: Reimagining Practice: Researching Change 2* (pp. 141-152), Surfers Paradise, Australia.
- Lassig, C. J. (2009). Teachers' attitudes towards the gifted: The importance of professional development and school culture. *Australasian Journal of Gifted Education*, 18(2), 32-42.

- Lee, S.-Y., & Olszewski-Kubilius, P. (2006). The Emotional Intelligence, Moral Judgment, and Leadership of Academically Gifted Adolescents. *Journal for the Education of the Gifted*, 30, 29-67. doi: 10.1177/016235320603000103
- Lombroso, C. (1891). *The man of genius*. London: Walter Scott.
- Lou, Y., Abrami, P., Spence, J., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research*, 66, 423-458.
- Lowe, H. (2002). Modern Foreign Languages. In D. Eyre & H. Lowe (Eds.). *Curriculum Provision for the Gifted and Talented in the Secondary School* (pp. 140-163). Abingdon: David Fulton.
- Lubinski, D., & Benbow, C. P. (2006). Study of mathematically precocious youth after 35 years: Uncovering antecedents for the development of math-science expertise. *Perspectives on Psychological Science*, 4(1), 315-345.
- MacKay, L. (1994). Acceleration: evaluating the controversy over higher-speed education. *Imagine*, 2(1), 11-13.
- Maitra, K. (2000). Status of gifted children in India: A country report in towards excellence. In K. Maitra (Ed.), *Developing and nurturing giftedness and talent* (pp. 219-225). New Delhi: Mosaic Books.
- Mallea, K. (1992). A novel approach for the gifted reader. *Middle School Journal*, 24(1), 37-38.
- Marland, S. P. (1972). Education of the gifted and talented. Report to Congress. Washington, DC: Government Printing Office
- Marshall, J., Ralph, S., & Palmer, S. (2002). 'I wasn't trained to work with them': mainstream teachers' attitudes to children with speech and language difficulties. *International journal of inclusive education*, 6(3), 199-215.
- Mayer, J. D., Perkins, D. M., Caruso, D. R., & Salovey, P. (2001). Emotional intelligence and giftedness. *Roeper Review*, 23, 131-137.
- McCoach, D. B., & Siegle, D. (2005). Personal and contextual predictors of teachers' attitudes toward the gifted. Paper presented at the American Education Research Association Annual Meeting, Montreal, Canada.
- McCoach, D. B., & Siegle, D. (2007). What predicts teachers' attitudes toward the gifted? *Gifted Child Quarterly*, 51(3), 246-254. doi: 10.1177/0016986207302719
- McNeil, L. (2010). Beyond the products of higher-order questioning: How do teacher and English-language learner perceptions influence practice? *TESOL*, 2, 74-90.
- Meador, K. (1995). The effect of synectics training on gifted and nongifted kindergarten students. *Journal for The Education of The Gifted*, 18, 55-73. doi: 10.1177/016235329401800105

- Melo, A. S., & Almeida, L. S. (2007). A identificação precoce da sobredotação: Alguns problemas e propostas. *Sobredotação*, 4(1), 29-46.
- Michener, L. (1980). A survey of the attitudes of administrators, teachers and community members toward the education of gifted children and youth. *Dissertation Abstracts International*, 41, 4678A–4679A. (University Microfilm No. 81–09, 558).
- Miranda, L. (2008). *Da identificação às respostas educativas para alunos sobredotados: Construção, aplicação e avaliação de um programa de enriquecimento escolar* (Doctoral dissertation). Universidade do Minho, Braga, Portugal.
- Miranda, L., & Almeida, L. S. (2012). Sinalização de alunos sobredotados e talentosos: perfil de desempenho em provas psicológicas e percepção dos professores. *AMazônica*, 10(3), 146-164.
- Mönks, F. J. (1992). Development of gifted children: The issue of identification and programming. In F. J. Mönks, & W. Peters (Eds.), *Talent for the future* (pp. 191-202). Assen: Van Gorcum.
- Mönks, F. J., Pflüger, R., & Radboud Universiteit Nijmegen. (2005). *Gifted education in 21 European countries: Inventory and perspective*. Nijmegen: Radboud University Nijmegen.
- Moon, T. R., & Brighton, C. M. (2008). Primary teachers' conceptions of giftedness. *Journal for the Education of the Gifted*, 31(4), 447-480.
- Moon, T. R., Brighton, C. M., Callahan, C. M., & Robinson, A. (2005). Development of authentic assessments for the middle school classroom. *Journal of Advanced Academics*, 15(2-3), 119-133.
- Moon, T. R., Callahan, C. M., Tomlinson, C. A., & Miller, E. M. (2002). Middle school classrooms: Teachers' reported practices and student perceptions. *National Research Center on the Gifted and Talented*. Retrieved from <https://files.eric.ed.gov/fulltext/ED505452.pdf>
- Moon, T., Tomlinson, C., & Callahan, C. (1995). *Academic diversity in the middle school: Results of a national survey of middle school administrators and teachers* (Research Monograph 95124). Charlottesville: National Rese
- Morais, M. F. (2003). Os produtos criativos: Introdução a uma alternative de avaliação no context educativo. *Sobredotação*, 4(2), 9-23.
- Morais, M. F. (2007). Na escuta de quem se demonstra criativo: Alguns contributos para a temática da criatividade. *Sobredotação*, 8, 67-90.
- Morelock, M. J. (1992). Giftedness, the view from within. *Understanding Our Gifted*. 4(3), 11-15.
- Morrissey, M.L. (2006). Intervention Training with a Focus on Differentiated Curriculum and Teachers' Attitudes Toward the Gifted in Regular Elementary

- School Classrooms. (Doctoral Dissertation). Columbia University Teachers College, New York, United States.
- Morris, S. K. (1987). Student teachers' attitudes toward gifted students. *Creative Child & Adult Quarterly*, 12(2), 112-11
- Muire, E. (2013). Romeo and Juliet is About You: Finding the Self in Drama. Retrieved from https://digitalcommons.trinity.edu/cgi/viewcontent.cgi?referer=https://scholar.google.pt/&httpsredir=1&article=1244&context=educ_understandings
- National Association for Gifted Children (n.d.). Myths about gifted students. Retrieved from <https://www.nagc.org/myths-about-gifted-students>
- Nebraska Department of Education (1996). Nebraska social studies framework: Teaching strategies for students with diverse learning needs. Lincoln, Nebraska: Nebraska Department of Education.
- Neihart, M. (2007). The socioaffective impact of acceleration and ability grouping: Recommendations for best practice. *Gifted Child Quarterly*, 51(4), 330-341. doi: 10.1177/0016986207306319
- Neihart, M., Reis, S. M., Robinson, N. M., & Moon, S. M. (Eds.) (2002). *The social and emotional development of gifted children: What do we know?* Waco, Texas: Prufrock Press.
- Neumeister, K. L. S., Adams, C. M., Pierce, R. L., Cassady, J. C., & Dixon, F. A. (2007). Fourth-grade teachers' perceptions of giftedness: Implications for identifying and serving diverse gifted students. *Journal for the Education of the Gifted*, 30(4), 479-499.
- Nogueira, S. I., & Baía, S. (2004). Torrance: Teste a qual criatividade? *Sobredotação*, 5, 39-58.
- Nunnally, J. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Okan, Z., & Ispinar, D. (2009). Gifted students' perceptions of learning English as a foreign language. *Educational Research and Review*, 4(4), 117-126.
- Olenchak, F. R. (2000). Differentiating curriculum for gifted and talented students: What is it in practice? A poll of 100 school districts. *Research and Development*, 18(4), 2-4.
- Olenchak, R. (2001). Lessons learned from gifted children about differentiation. *The Teacher Educator*, 36(3), 185-198. doi: 10.1080/08878730109555263
- Oliveira, E. P., & Almeida, S. (2010). Representações e práticas de professores e psicólogos no apoio aos alunos com características de sobredotação. *Sobredotação*, 11, 127-139.
- Palm, T. (2008). Performance assessment and authentic assessment: A conceptual analysis of the literature. *Practical Assessment, Research & Evaluation*, 13(4),

- Parker, J. P. (1989). *Instructional strategies for teaching the gifted*. Allyn & Bacon
- Passow, A. H. (1981). The nature of giftedness and talent. *Gifted Child Quarterly*, 25(1), 5-10.
- Passow, A. H. & Rudnitski, R. A. (1993). *State policies regarding education of the gifted as reflected in legislation and regulation*. Storrs, CT: National Research Center on the Gifted and Talented.
- Paul, R. W. (1990). *Critical thinking: What every person needs to survive in a rapidly changing world*. Rohnert Park, CA: Center for Critical Thinking and Moral Critique.
- Paul, R., & Elder, L. (2007). Critical thinking: The art of Socratic questioning. *Journal of Developmental Education*, 31(1), 36-37.
- Pearce, G. (2004). TEAM Solutions. Retrieved from <http://podcasts.shelbyed.k12.al.us/lsherrell/files/2015/02/Questioning-article.pdf>
- Peixoto, L. M., & Vilas Boas, C. (2002). Percepção dos professores sobre as “respostas educativas” às crianças sobredotadas: Um estudo no concelho de Braga. *Sobredotação*, 3(2), 207-218.
- Pereira, M. A. M. (1998). *Crianças sobredotadas: Estudos de caracterização*. (Unpublished doctoral dissertation). Universidade de Coimbra, Coimbra, Portugal.
- Pereira, M., Seabra-Santos, M. J., & Simões, M. R. (2003). Estudos com a WISC-III numa amostra de crianças sobredotadas. *Sobredotação*, 4(2), 69-89.
- Pestana, M. H., & Gageiro, J. N. (2000). *Análise de dados para ciências sociais: A complementaridade do SPSS* (2nd ed.). Lisbon: Edições Sílabo.
- Pfeiffer, S. I. (2015). Gifted students with a coexisting disability: The twice exceptional. *Estudos de Psicologia*, 32(4), 717-727. doi: 10.1590/0103-166X2015000400015
- Phillips, C. (2000). A sense of wonder: young philosophers in San Francisco ponder age old questions. *Teaching Tolerance*, 17, 36-39.
- Piirto, J. (1999). *Talented children and adults: Their development and education*. Upper Saddle River, NJ: Merrill.
- Pocinho, M. (2009). Superdotação: Conceitos e modelos de diagnóstico e intervenção psicoeducativa. *Revista Brasileira de Educação Especial*, 15(1), 3-14.
- Prieto, M. D. & Costa, J. L. C. (2000). *Los Superdotados: Esos alumnos excepcionales*. Málaga: Aljibe.
- Ramôa, M., & Oliveira, E. M. (2013). Percepções dos professores sobre as medidas educativas especiais de apoio aos alunos sobredotados. *Atas do XII Congresso*

Internacional Galego-Português de Psicopedagogia. Braga: Universidade do Minho.

- Raphael, T. E. (1986). Teaching question-answer relationships. *The Reading Teacher*, 39, 516-520.
- Reed, S. E., & Westberg, K. L. (2003). Implementing enrichment clusters in a multiage school: Perspectives from a principal and consultant. *Gifted Child Today*, 26(4), 26-29.
- Reis, E. (2001). *Probabilidades, variáveis aleatórias, distribuições teóricas* (Vol. 1). Lisbon: Sílabo.
- Reis, S. M. (2001). External barriers experienced by gifted and talented girls and women. *Gifted Child Today*, 24(4), 26-65.
- Reis, S. M., & Renzulli, J. S. (1982). A case for a broadened conception of giftedness. *Phi Delta Kappan*, 63(4), 619-620.
- Reis, S. M., & Renzulli, J. S. (1982). A research report on the revolving door identification model: A case for the broadened conception of giftedness. *Phi Delta Kappan*, 63, 619-620.
- Reis, S. M., & Renzulli, J. S. (2004). Current research on the social and emotional development of gifted and talented students: Good news and future possibilities. *Psychology in the Schools*, 41(1), 119-130. doi: 10.1002/pits.10144
- Reis, S. M., & Renzulli, J. S. (2005). *Curriculum compacting: An easy start to differentiating for high potential students*. Waco, TX: Prufrock Press.
- Reis, S. M., & Renzulli, J. S. (2009). Myth 1: The gifted and talented constitute one single homogeneous group and giftedness is a way of being that stays in the person over time and experiences. *Gifted Child Quarterly*, 53, 233-235.
- Reis, S. M., & Small, M. A. (2005). The varied and unique characteristics exhibited by diverse gifted and talented learners. In F. A. Karnes & S. M. Bean (Eds.), *Methods and materials for teaching the gifted* (2nd ed., pp. 3-35). Waco, TX: Prufrock Press.
- Reis, S. M., Westberg, K. L., Kulikowich, J., Caillard, F., Hébert, T., Plucker, J., Purcell, J. H., Rogers, J. B., & Smist, J. M. (1993). *Why not let high ability students start school in January? The curriculum compacting study* (Research Monograph 93106). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Reis, S. M., & Westberg, K. L. (1994). The Impact of Staff Development on Teachers' Ability to Modify Curriculum for Gifted and Talented Students¹. *Gifted Child Quarterly*, 38(3), 127-135.
- Reis, S. M., Westberg, K. L., Kulikowich, J. M., & Purcell, J. H. (1998). Curriculum compacting and achievement test scores: What does the research say? *Gifted Child Quarterly*, 42(2), 123-129.

- Renzulli, J. S. (1977). *The enrichment triad model: A guide for developing defensible programs for the gifted and talented*. Mansfield Center, CT: Creative Learning.
- Renzulli, J. (1978). What makes giftedness? Reexamining a definition. *Phi Delta Kappan*, 60(3), 180-184.
- Renzulli, J. S. (1984). The triad/revolving door system: A research-based approach to identification and programming for the gifted and talented. *Gifted Child Quarterly*, 28, 163-171.
- Renzulli, J. S. (1994). New directions for the schoolwide enrichment model. *Gifted Education International*, 10(1), 33-36.
- Renzulli, J. S. (1997). Five dimensions of differentiation. Keynote presentation at the 20th Annual Confratute Conference, Storrs, CT.
- Renzulli, J. S. (2002). Emerging conceptions of giftedness: Building a bridge to the new century. *Exceptionality*, 10(2), 67-75. doi: 10.1207/S15327035EX1002_2
- Renzulli, J. S. (2005). The three-ring conception of giftedness. A developmental model for promoting creative productivity. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 246–279). New York, NY: Cambridge
- Renzulli, J. S., & Fleith, S. M. (2002). O modelo de enriquecimento escolar. *Sobredotação*, 2(3), 7-40.
- Renzulli, J. S., Gentry, M., & Reis, S. M. (2003). *Enrichment clusters: A practical plan for real-world, student-driven learning*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J. S., & Reis, S. M. (1994). Research related to the schoolwide enrichment model. *Gifted Child Quarterly*, 38, 2-14.
- Renzulli, J. S., & Reis, S. M. (1997). *The schoolwide enrichment model: A how-to guide for educational excellence* (2nd ed.). Mansfield Center, CT: Creative Learning.
- Renzulli, J. S., & Reis, S. M. (2010). Is there still a need for gifted education? An examination of current research. *Learning and Individual Differences*, 20, 308-317. doi: 10.1016/j.lindif.2009.10.012
- Renzulli, J. S., Reis, S. M., & Smith, L. H. (1981). *The revolving door identification model*. Creative Learning Press.
- Renzulli, J. S., & Smith, L. H. (1979). *A guidebook for developing individualized educational programs for gifted and talented students*. Mansfield Center, CT: Creative Learning Press
- Renzulli, J., Smith, L. H., White, A. J., Callahan, C. M., Hartman, R. K. & Westberg, K. L. ... Sytsma, R. E. (2002). *Scales for rating the behavioral characteristics of superior students. Technical and administration manual* (rev. ed.). Waco, TX: Prufrock Press.
- Robinson, A. (2003). Cooperative learning and high ability students. In N. Colangelo &

- G. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 282–292). Boston: Allyn & Bacon.
- Robinson, A., & Clinkenbeard, P. R. (2008). History of giftedness: Perspectives from the past presage modern scholarship. In *Handbook of giftedness in children* (pp. 13-31). Boston, MA: Springer.
- Robinson, A., Shore, B. M., & Enersen, D. L. (2007). *Best practices in gifted education: An evidence-based guide*. Waco, TX: Prufrock Press.
- Rocha, A. (Coord). (2017). *Altas capacidades e sobredotação: Compreender, identificar, atuar*. Braga: Associação Nacional Estudo e Intervenção na Sobredotação.
- Rodrigues, C., & Antunes, A. M. P. (2012). Escola inclusiva e sobredotação: estudo exploratório sobre as percepções dos professores. *Actas do II Seminário Internacional "Contributos da Psicologia em Contextos Educativos"*, (pp. 637-647).
- Rogers, K. B. (1986). Do the gifted think and learn differently? A review of recent research and its implications for instruction. *Journal for the Education of the Gifted*, 10(1), 17-39.
- Rogers, K. B. (1991). *The relationship of grouping practices to the education of the gifted and talented learner*. Storrs: University of Connecticut, The National Research Center on the Gifted and Talented.
- Rogers, K. B. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. *Gifted Child Quarterly*, 51, 382-396. doi: 10.1177/0016986207306324
- Roiha (2012) Teachers' views on differentiation in content and language integrated learning (CLIL). *Perceptions, practices and challenges, Language and Education*, 28(1), 1-18, DOI: [10.1080/09500782.2012.748061](https://doi.org/10.1080/09500782.2012.748061)
- Sanders, W. L., & Horn, S. P. (1998). Research findings from the Tennessee value-added assessment system (TVASS) database: Implications for educational research and evaluation. *Journal of Personnel Evaluation in Education*, 12, 247-256.
- Sanders, W. L., & Rivers, J. C. (1996). *Cumulative and residual effects of teachers on future students' academic achievement*. Knoxville: University of Tennessee, Value-Added Research and Assessment Center.
- Santos, M. D., & Paulino, M. M. (2006). Inclusão em educação: uma visão geral. In M. D. Santos & M. M. (Orgs.). *Inclusão em educação: culturas, políticas e práticas* (pp. 11-15). São Paulo: Cortez.
- Sapon-Shevin, M. (2003). Equity, excellence, and school reform: Why is finding common ground so hard? In J. H. Borland (Ed.), *Rethinking gifted education* (pp. 127–142). New York: Teachers College Press

- Schumm, J., & Vaughn, S. (1995). Getting ready for inclusion: Is the stage set? *Learning Disabilities Research & Practice, 10*, 169-179.
- Shomoossi, N. (2004). The effect of teachers' questioning behavior on EFL classroom interaction: A classroom research study. *The Reading Matrix, 4*(2), 96-104.
- Shore, B. M., & Kanevsky, L. S. (1993). Thinking Processes: Being and Becoming Gifted. In K. H. Heller et al., *International handbook of research and development of giftedness and talent* (pp. 133-147). Oxford: Pergamon Press.
- Silva, E. D. S. (2008). Dificuldades de Identificação de Alunos Sobredotados. Uma reflexão sobre os factores impeditivos, inerentes aos professores dos 2º e 3º ciclos. *Revista Lusófona de Educação, 11*, 196-197.
- Silverman, L. K. (1992). The importance of early identification of the gifted. *Highly Gifted Children, 8*(1), 5, 16-17.
- Silverman, L. K. (1993). A developmental model for Counseling the gifted. In L.K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 51- 78). Denver, CO: Love Publishing.
- Silverman, L. K. (1997). The construct of asynchronous development. *Peabody Journal of Education, 72*, 3-4.
- Silverman, L. K. (2007). Perfectionism: The crucible of giftedness. *Gifted Education International, 23*(3), 233-245.
- Smith, M. K., & Smith, K. E. (2000). "I believe in inclusion, but...": Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research in Childhood Education, 14*(2), 161-180.
- Stepanek, J. (1999). *Meeting the Needs of Gifted Students: Differentiating Mathematics and Science Instruction*. Portland, Oregon: Northwest Regional Educational Laboratory.
- Stamps, L. S. (2004). The effectiveness of curriculum compacting in first grade classrooms. *Roeper Review, 27*(1), 31-41.
- Sternberg, R. (1994). Answering questions and questioning answers: guiding children to intellectual excellence. *Phi Delta Kappan, 76*(2), 136-138.
- Sternberg, R. J. (2003). *Wisdom, intelligence, and creativity, synthesized*. New York: Cambridge University Press.
- Sternberg, R. J., & Davidson, J. E. (1986). *Conceptions of giftedness*. Cambridge, England: Cambridge University Press.
- Szymanski, T., & Shaff, T. (2013). Teacher perspectives regarding gifted diverse students. *Gifted Children, 6*(1), article 1. Retrieved from <https://docs.lib.purdue.edu/cgi/viewcontent.cgi?referer=https://scholar.google.pt/&httpsredir=1&article=1055&context=giftedchildren>
- Tannenbaum, A. J. (1986). Giftedness: A psychosocial approach. In R.J. Sternberg & J.

- E. Davidson (Eds.), *Conceptions of giftedness* (pp. 21-52). New York, NY: Cambridge University Press.
- Tannenbaum, A. J. (2003). Nature and nurture of giftedness. *Handbook of gifted education*, 3, 45-59.
- Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low income schools. *The Elementary School Journal*, 101, 121-166.
- Terry, A. W., & Bohnenberger, J. E. (2003). Service learning: Fostering a cycle of caring in our gifted youth. *Journal of Secondary Gifted Education*, 15(1), 23-32.
- Theisen, T. (2002). Differentiated instruction in the foreign language classroom: Meeting the diverse needs of all learners. *Languages Other Than English (LOTE). Communiqué*, 6, 1-8.
- Thomas, A., and Thorne, G. (2009). *How to Increase Higher Order Thinking*. Metairie, LA: Center for Development and Learning. Retrieved from: <http://www.readingrockets.org/article/34655>
- Thurstone, L. L. (1938). *Primary mental abilities*. Chicago: University of Chicago Press.
- Tirri, K. A., Tallent-Runnels, M. K., Adams, A. M., Yuen, M., & Lau, P. S. (2002). Cross-cultural predictors of teachers' attitudes toward gifted education: Finland, Hong Kong, and the United States. *Journal for the Education of the Gifted*, 26(2), 112-131.
- Tolan, S. S. (1997). Is it a Cheetah? Retrieved from <https://files.eric.ed.gov/fulltext/ED428477.pdf>
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (2000). Differentiated instruction: Can it work? *The Education Digest*, 65(5), 25-31.
- Tomlinson, C. A. (2001). *How to differentiate in mixed-ability classrooms* (2nd ed.). Alexandria, VA: ASCD
- Tomlinson, C.A. (2002). Proficiency is not enough. *Education Week Commentary*. Retrieved from <http://nagc.org/index.aspx?id=1997>
- Tomlinson, C. A. (2008). Goals of Differentiation. Educational Leadership. Invitations to learn. *Educational Leadership*, 60(1), 6-10.
- Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K.... Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27(2-3), 119-145.

- Tomlinson, C. A., Callahan, C. M., Moon, T. R., Tomchin, E. M., Landrum, M., Imbeau, M., Hunsaker, S. L., & Eiss, N. (1995). *Preservice teacher preparation in meeting the needs of gifted and other academically diverse students* (Research Monograph 95134). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Tomlinson, C. A., & Kalbfleisch, M. L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership*, 56(3), 52-55.
- Tomlinson, C. A., Kaplan, S. N., Renzulli, J. S., Purcell, J., Leppien, J., & Burns, D. (2002). *The parallel curriculum: A design to develop high potential and challenge high-ability learners*. Corwin Press.
- Tomlinson, C. A., Menaker, E., Callahan, C., Adams, C., Pizzat-Tinnin, P., Cunningham, C., ... Imbeau, M. (1994). Practices of preservice teachers related to gifted and other academically diverse learners. *TEaL Faculty Publications*, 38. doi: 10.1177/001698629403800303
- Torrance, E. P. (1984). The role of creativity in identification of the gifted and talented. *Gifted Child Quarterly*, 28, 153-156. doi:10.1177/001698628402800403
- Treffert, D. A. (2009). The savant syndrome: an extraordinary condition. A synopsis: past, present, future. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1522), 1351–1357. doi: 10.1098/rstb.2008.0326
- Troxclair, D. A. (2013). Preservice teacher attitudes toward giftedness. *Roeper Review*, 35(1), 58-64. doi: 10.1080/02783193.2013.740603
- Trudel, R., & Antonius, R. (1991). *Méthodes quantitatives appliquées aux sciences humaines*. Montréal: Les Éditions de la Chenelière.
- United Nations Educational Scientific and Cultural Organisation (UNESCO) (1994). *The Salamanca statement and framework for action on special needs education*. Paris: UNESCO
- Vallerand, R. (1989). Vers une méthodologie de validation transculturelle des questionnaires psychologiques: Implications pour la recherche en langue française. *Psychologie Canadienne*, 30, 662-680.
- VanTassel-Baska, J. (1986). Effective curriculum and instructional models for talented students. *Gifted Child Quarterly*, 30(4), 164-169. doi: 10.1177/001698628603000404
- VanTassel-Baska, J. (1996). *The process of talent development: Developing verbal talent*. Boston: Allyn and Bacon.
- VanTassel-Baska, J. L. (1996). Effective curriculum and instructional models for talented students. *Gifted Child Quarterly*, 30, 164-169.
- VanTassel-Baska, J. L. (1998). *Comprehensive curriculum for the gifted learners*. Boston: Allyn and Bacon.
- VanTassel-Baska, J. (2001). Assessment of gifted student learning in the language

arts. *Journal of Secondary gifted education*, 13(2), 67-72.

- VanTassel-Baska, J. (2003a). Differentiating the language arts for high ability learners. *ERIC Clearinghouse on Disabilities and Gifted Education*. Retrieved from <https://files.eric.ed.gov/fulltext/ED474306.pdf>
- VanTassel-Baska, J. (2003b). What matters in curriculum for gifted learners: Reflections on theory, research, and practice. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 174-183). Boston: Allyn and Bacon.
- VanTassel-Baska, J. (2005). Gifted programs and services: What are the nonnegotiables? *Theory into Practice*, 44(2), 90-97.
- VanTassel-Baska, J. (Ed.) (2013). *Using the common core state standards for English language arts with gifted and advanced learners*. Waco, TX: Prufrock Press.
- VanTassel-Baska, J. (2014). Performance-based assessment: The road to authentic learning for the gifted. *Gifted Child Today*, 37(1), 41-47.
- VanTassel-Baska, J., Avery, L., Struck, J., Feng, A., Bracken, B., Drummond, D., et al. (2003). *The William and Mary classroom observation scales revised (COS-R)*. Williamsburg, VA: Center for Gifted Education.
- VanTassel-Baska, J., & Bracken, B. (2008). *Project Athena Evaluation Report*. The College of William & Mary: Center for Gifted Education.
- VanTassel-Baska, J., & Brown, E. (2007). Towards best practice: An analysis of the efficacy of curriculum models in gifted education. *Gifted Child Quarterly*, 51, 342-358.
- Van Tassel-Baska, J., Johnson, D. T., Hughes, C. E., & Boyce, L. N. (1996). A study of language arts curriculum effectiveness with gifted learners. *Talents and Gifts*, 19(4), 461-480.
- VanTassel-Baska, J., Feldhusen, J., Seeley, K., Wheatley, G., Silverman, L., & Foster, W. (1988). *Comprehensive curriculum for gifted learners*. Boston, MA: Allyn and Bacon.
- VanTassel-Baska, J., Feng, A. X., & Evans, B. L. (2007). Patterns of identification and performance among gifted students identified through performance tasks. *Gifted Child Quarterly*, 51(3), 218-231.
- VanTassel-Baska, J., Feng, A., Brown, E., Bracken, B., Stambaugh, T., French, H., . . . Bai, W. (2008). A study of differentiated instructional change over three years. *Gifted Child Quarterly*, 52, 297-312.
- VanTassel-Bask, J. L., & Stambaugh T. L. (2005). Challenges and possibilities for serving gifted learners in the regular classroom. *Theory into Practice*, 44(3), 211-218.
- VanTassel-Baska, J., & Stambaugh, T. (2006). *Comprehensive curriculum for the gifted*. Boston, MA: Pearson.

- VanTassel-Baska, J., Quek, C., & Feng, A. X. (2006). The development and use of a structured teacher observation scale to assess differentiated best practice. *Roeper Review*, 29(2), 84-92.
- VanTassel-Baska, J., & Wood, S. (2010). The Integrated Curriculum Model (ICM). *Learning and Individual Differences*, 20(4), 345–357. doi:10.1016/j.lindif.2009.12.006
- Veiga, H. F., Moura, H., Menezes, J., & Ribeiro, A. (1997). Alunos sobredotados vistos pelos professores. *Revista Portuguesa de Pedagogia*, XXXI (1, 2, 3), 261-282.
- Visser, B. A., Ashton, M. C., & Vernon, P. A. (2006). Beyond g: Putting multiple intelligences theory to the test. *Intelligence*, 34, 487–502. doi:10.1016/j.intell.2006.02.004.
- Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge, MA: MIT Press. (Original work published 1934).
- Wagner, B. J. (1985). Integrating the language arts. ERIC Digest. ERIC Clearinghouse on Reading and Communication Skills Urbana IL. Retrieved from <http://www.ericdigests.org/pre-923/arts.htm>
- Wang M., Haertel G., & Walberg H. (1993). Toward a knowledge base for school learning. *Review of Educational Research*, 63(3), 249-294.
- Ward, V. S. (1980). *Differential education of the gifted*. Ventura, CA: National/State Leadership Training Institute for the Gifted and Talented.
- Ward, J., Center, Y., & Bochner, S. (1994). A question of attitudes: integrating children with disabilities into regular classrooms?. *British Journal of Special Education*, 21(1), 34-39.
- Weaver, W. T., & Prince, G. (1990). Synectics: It's potential for education. *Phi Delta Kappan*, 71, 378-388.
- Webb, J. T. (1994). Nurturing Social Emotional Development of Gifted Children. ERIC Digest E527.
- Webb, N. & Palincsar, A. S. (1996). Group processes in the classroom. In D. Berlmer & R. Calfee (Eds.), *Handbook of educational psychology* (pp. 841-873). New York: Simon & Schuster Macmillan.
- Westberg, K. L., Archambault, F. X., Jr. (1997). A multi-site case study of successful classroom practices for high ability students. *Gifted Child Quarterly*, 41(1), 42-51. doi: 10.1177/001698629704100106
- Westberg, K., Archambault, F., Dobyns, S., & Slavin, T. (1993). *An observational study of instructional and curricular practices used with gifted and talented students in regular classrooms*. Storrs, CT: National Research Center on the Gifted and Talented.
- Westberg, K. L., & Daoust, M. E. (2003). *The results of the replication of the classroom*

practices survey replication in two states. Storrs, CT: National Research Center on the Gifted and Talented, University of Connecticut.

- Whitmore, J. R., (1980). *Giftedness, conflict and underachievement*. Boston: Allyn and Bacon.
- Wiggins, G., & McTighe, J. (2005). *Understanding by design* (exp. 2nd ed.). Alexandria, VA: ASCD.
- Winebrenner, S. (2000). Gifted students need an education, too. *Educational Leadership*, 58, 52-56.
- Winner, E. (1997). The point of words: Children's understanding of metaphor and irony. Cambridge, MA: Harvard University Press.^[1]_{SEP}
- Wood, P. F. (2008). Reading instruction with gifted and talented readers: A series of unfortunate events or a sequence of auspicious results?. *Gifted Child Today*, 31(3), 16-25.
- Zohar, A., Degani, A., & Vaaknin, E. (2001). Teachers' beliefs about low-achieving students and higher order thinking. *Teaching and Teacher Education*, 17(4), 469-485.
- Zohar A., & Dori Y. (2003) Higher order thinking skills and low achieving students: Are they mutually exclusive?. *Journal of the Learning Sciences*, 12(2), 145-181. doi: 10.1207/S15327809JLS1202_1

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APPENDIX A

Online Survey of an adapted version of the Classroom Practices Questionnaire (CPQ) and Opinions about the Gifted and their Education (OGE)

Link:

[https://docs.google.com/forms/d/1lh9AlZb_MgK7W1Zbppm92kLsXLg2298wTQE8riSI
Cuc/prefill](https://docs.google.com/forms/d/1lh9AlZb_MgK7W1Zbppm92kLsXLg2298wTQE8riSI/Cuc/prefill)

A questionnaire for teachers of English on teaching practices and opinions about Gifted Language Learners (Grades 5 to 12)

Thank you for your help. I truly appreciate it. These surveys aim to understand what we teachers need to cater for all our children, not forgetting the gifted learners. The questions focus on your opinions about the gifted and their education as well as actual classroom practices. Obtaining your feedback is important. Let your voice be heard.

This will take you approximately 20 minutes! Please respond sincerely. Your responses are voluntary and will be confidential. All responses will be compiled together and analyzed as a group.

Title of Research "Bridging Ideas of Best Practice in Gifted Education and Language Learning in English as a Foreign Language"

PhD Research in Science of Education – FCSH – Universidade Nova de Lisboa

Please feel free to contact me if you have any questions/comments: rimajprakash@gmail.com

*Required

Teacher Demographics - General Information

(Opinions about the Gifted and their Education/Classroom Practices)

1. 1. Fictional Name *

2. 2. Gender *

Mark only one oval.

- ☐ Female
☐ Male

3. 3. Age *

Mark only one oval.

- ☐ 20 - 29
☐ 30 - 39
☐ 40 - 49
☐ 50 - 59
☐ 60 +

4. 4. Current School *

Mark only one oval.

- ☐ Public
☐ Private International
☐ Private English
☐ Private Portuguese
☐ Other: _____

5. 5. Years teaching experience *

Mark only one oval.

- ☐ 1 - 5
☐ 6 - 10
☐ 11 - 15
☐ 16 - 20
☐ 20 +

6. 6. N° of weekly teaching hours of English per class *

Mark only one oval.

- ☐ 2 - 4 hours
☐ 5 - 7 hours
☐ 8 - 10 hours
☐ 10 +

7. 7. Age groups currently teaching (10-11 yrs, 11-12 yrs) *

8. 8. Highest Degree earned *

9. 9. University where highest degree was earned *

10. 10. Did your university course include training in gifted education? *

Mark only one oval.

- ☐ Yes
☐ No

11. 11. Have you taken any in-service courses in gifted education ? *

Mark only one oval.

- ☐ Yes
☐ No

12. 12. If you answered yes to questions 10 and/or 11 , select the number of hours of training.

Mark only one oval.

- ☐ 1-5 hours
☐ 6-10 hours
☐ 11-15 hours
☐ 16 - 20 hours
☐ 21 + hours

13. 13. How confident do you feel about teaching gifted children? *

Mark only one oval.

- ☐ Very confident
☐ Somewhat confident
☐ Not confident

14. 14. Do you consider yourself gifted? *

Mark only one oval.

- ☐ Yes
☐ No
☐ Maybe

15. 15. Do you have any family members who you believe are gifted or have been identified as gifted? *

Mark only one oval.

- ☐ Yes
☐ No
☐ Maybe

Teacher Demographics - Classroom Context

16. 16. What is the number of formally identified gifted students in your current classroom(s)? *

Mark only one oval.

- ☐ None
☐ 1 child
☐ 2 children
☐ 3 children
☐ 4 children

17. 17. In reference to Q.16, what age group(s) are the formally identified gifted students in? (10- 11 yrs, 11-13 yrs etc.)

18. 18. Are there students in your current classroom(s) you believe are gifted but have not been formally identified? *

Mark only one oval.

- ☐ None
☐ 1 child
☐ 2 children
☐ 3 children
☐ 4 children
☐ Other: _____

19. 19. In reference to Q. 18, what age-group(s) are the students you believe are gifted in? (10-11 years, 11-13 years)
-

Classroom Practices (adapted from Archambault et. al,1993)

This survey is designed to provide information about the instructional strategies and approaches you use with a specific class. It is very important that the answers you provide reflect actual practices. There are no right or wrong answers. Please be assured that your individual responses will be held in the strictest confidence.

20. Please read the directions below, check one of the boxes and proceed as directed. *

Mark only one oval.

- ☐ If you have students in your class formally identified as gifted by an external or school psychologist, tick this box and respond to items 1-26 for Practices with Non- Gifted Learners AND Practices with Gifted Learners.
- ☐ If you do not have students in your class formally identified as gifted by an external or school psychologist but have students you believe are gifted, tick this box and respond to items 1-26 for Practices with Non-Gifted Learners AND Practices with Gifted Learners.
- ☐ If you have neither students formally identified by an external or school psychologist as gifted nor students you believe are gifted, tick this box and respond to items 1-26 for Practices with Non-Gifted Learners. Skip to question 24.

Current Classroom Practice with Gifted Learners

21. *

Mark only one oval per row.

	0 - Never	2 - Once a term/trimester	3 - Once a month	4 - Twice a month	5 - Once a week
1. Assign reading of more advanced level work	☐	☐	☐	☐	☐
2. Assign projects or other work requiring extended time for students to complete	☐	☐	☐	☐	☐
3. Assign book reports	☐	☐	☐	☐	☐
4. Use activities such as puzzles or word searches	☐	☐	☐	☐	☐
5. Give creative or expository writing assignments on topics selected by the teacher	☐	☐	☐	☐	☐
6. Give creative or expository writing assignments on topics selected by the students	☐	☐	☐	☐	☐
7. Make time available for students to pursue self-selected interests	☐	☐	☐	☐	☐
8. Use pretests to determine if students know before a new topic is given	☐	☐	☐	☐	☐
9. Eliminate curricular material that students have mastered	☐	☐	☐	☐	☐
10. Repeat instruction on the coverage of more difficult concepts for some students	☐	☐	☐	☐	☐

Current Classroom Practice with Gifted Learners

22. *

Mark only one oval per row.

	0 - Never	1 - Once a term/trimester	2 - Once a month	4 - Twice a month	5 - Once a week
11. Substitute different assignments for students who have mastered regular classroom work	☐	☐	☐	☐	☐
12. Modify the instructional format for students who learn better using an alternative approach	☐	☐	☐	☐	☐
13. Encourage students to move around the classroom to work in various locations	☐	☐	☐	☐	☐
14. Assign different homework based on student ability	☐	☐	☐	☐	☐
15. Teach thinking skills in the regular curriculum	☐	☐	☐	☐	☐
16. Provide time within the school day for students to work on their independent study projects	☐	☐	☐	☐	☐
17. Allow students within your classroom to work from a higher grade level textbook	☐	☐	☐	☐	☐

Current Classroom Practice with Gifted Learners

23. *

Mark only one oval per row.

	0 - Never	2 - Once a term/trimester	3 - Once a month	4 - Twice a month	5 - Once a week
18. Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic	☐	☐	☐	☐	☐
19. Group students by ability across classrooms at the same grade level	☐	☐	☐	☐	☐
20. Send students to a higher grade level	☐	☐	☐	☐	☐
21. Establish interest groups which enable students to pursue individual or small group interests	☐	☐	☐	☐	☐
22. Consider students' opinion in allocating time for various topics	☐	☐	☐	☐	☐
23. Provide questions that encourage reasoning and logical thinking	☐	☐	☐	☐	☐
24. Ask open-ended questions	☐	☐	☐	☐	☐
25. Encourage students to ask higher-level questions	☐	☐	☐	☐	☐
26. Encourage student participation in discussions	☐	☐	☐	☐	☐

Current Classroom Practice with Non-Gifted Learners

24. *

Mark only one oval per row.

	0 - Never	2 - Once a term/trimester	3 - Once a month	4 - Twice a month	5 - Once a week
1.Assign reading of more advanced level work	☐	☐	☐	☐	☐
2.Assign projects or other work requiring extended time for students to complete	☐	☐	☐	☐	☐
3.Assign book reports	☐	☐	☐	☐	☐
4.Use activities such as puzzles or word searches	☐	☐	☐	☐	☐
5.Give creative or expository writing assignments on topics selected by the teacher	☐	☐	☐	☐	☐
6.Give creative or expository writing assignments on topics selected by the students	☐	☐	☐	☐	☐
7.Make time available for students to pursue self-selected interests	☐	☐	☐	☐	☐
8.Use pretests to determine what students know before a new topic is given	☐	☐	☐	☐	☐
9.Eliminate curricular material that students have mastered	☐	☐	☐	☐	☐
10.Repeat instruction on the coverage of more difficult concepts for some students	☐	☐	☐	☐	☐

Current Classroom Practice with Non-Gifted Learners

25. *

Mark only one oval per row.

	0 - Never	2 - Once a term/trimester	3 - Once a month	4 - Twice a month	5 - Once a week
11.Substitute different assignments for students who have mastered regular classroom work	☐	☐	☐	☐	☐
12.Modify the instructional format for students who learn better using an alternative approach	☐	☐	☐	☐	☐
13.Encourage students to move around the classroom to work in various locations	☐	☐	☐	☐	☐
14.Assign different homework based on student ability	☐	☐	☐	☐	☐
15.Teach thinking skills in the regular curriculum	☐	☐	☐	☐	☐
16.Provide time within school hours for students to work on their independent study projects	☐	☐	☐	☐	☐
17.Allow students within your classroom to work from a higher grade level textbook	☐	☐	☐	☐	☐

Current Classroom Practice with Non-Gifted Learners

26. *

Mark only one oval per row.

	0 - Never	2 - Once a term/trimester	3 - Once a month	4 - Twice a month	5 - Once a week
18. Provide a different curricular experience by using a more advanced curriculum unit on a teacher-selected topic	☐	☐	☐	☐	☐
19. Group students by ability across classrooms at the same grade level	☐	☐	☐	☐	☐
20. Send students to a higher grade level	☐	☐	☐	☐	☐
21. Establish interest groups which enable students to pursue individual or small group interests	☐	☐	☐	☐	☐
22. Consider students' opinion in allocating time for various topics	☐	☐	☐	☐	☐
23. Provide questions that encourage reasoning and logical thinking	☐	☐	☐	☐	☐
24. Ask open-ended questions	☐	☐	☐	☐	☐
25. Encourage students to ask higher-level questions	☐	☐	☐	☐	☐
26. Encourage student participation in discussions	☐	☐	☐	☐	☐

Current Classroom Practice with Non-Gifted Learners

27. Please provide any comments you believe will help in understanding classroom practices which you feel help gifted learners.

Opinions about the gifted and their education (adapted from Gagné & Nadeau, 1995)

The following statements concern gifted children and their education. We would like to know the extent of your agreement or disagreement with each of them. There are no correct or incorrect answers. Please, feel free to express your personal opinion.

Use the scale below to give your opinion. Select the number which best represents your opinion. Answer as spontaneously as possible. Please answer all questions. Use answer 3 as little as possible.

28. **01. Our schools should offer special educational services for the gifted. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

29. **02. The best way to meet the needs of the gifted is to put them in special classes. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

30. **03. Children with difficulties have the most need of special educational services. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

31. **04. Special programs for gifted children have the drawback of creating elitism. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

32. **05. Special educational services for the gifted are a mark of privilege. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

33. **06. When the gifted are put in special classes, the other children feel devalued. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

34. **07. Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

35. **08. It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

36. **09. Gifted children are often bored in school. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

37. **10. Children who skip a grade are usually pressured to do so by their parents. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

38. **11. The gifted waste their time in regular classes. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

Opinions about the gifted and their education (adapted from Gagné & Nadeau, 1995)

The following statements concern gifted children and their education. We would like to know the extent of your agreement or disagreement with each of them. There are no correct or incorrect answers. Please, feel free to express your personal opinion.

Use the scale below to give your opinion. Select the number which best represents your opinion. Answer as spontaneously as possible. Please answer all questions. Use answer 3 as little as possible.

39. **12. We have a greater moral responsibility to give special help to children with difficulties than to gifted children. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

40. **13. Gifted persons are a valuable resource for our society. ***

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

41. 14. The specific educational needs of the gifted are too often ignored in our schools. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

42. 15. The gifted need special attention in order to fully develop their talents. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

43. 16. Our schools are already adequate in meeting the needs of the gifted. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

44. 17. I would very much like to be considered a gifted person. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

45. 18. It is parents who have the major responsibility for helping gifted children develop their talents. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

46. 19. A child who has been identified as gifted has more difficulty in making friends. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

47. 20. Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children. *
- Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

48. 21. By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

49. 22. Some teachers feel their authority threatened by gifted children. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

Opinions about the gifted and their education (adapted from Gagné & Nadeau, 1995)

The following statements concern gifted children and their education. We would like to know the extent of your agreement or disagreement with each of them. There are no correct or incorrect answers. Please, feel free to express your personal opinion.

Use the scale below to give your opinion. Select the number which best represents your opinion. Answer as spontaneously as possible. Please answer all questions. Use answer 3 as little as possible.

50. 23. The gifted are already favoured in our schools. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

51. 24. In order to progress, a society must develop the talents of gifted individuals to a maximum. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

52. 25. By offering special educational services to the gifted we prepare the future members of a dominant class. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

53. 26. Tax-payers should not have to pay for special education for the minority of children who are gifted. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

54. 27. Average children are the major resource of our society; so, they should be the focus of our attention. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

55. 28. Gifted children might become vain or egotistical if they are given special attention. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

56. 29. When skipping a grade, gifted students miss important ideas (they have "holes" in their knowledge). *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

57. 30. Since we invest supplementary funds for children with difficulties, we should do the same for the gifted. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

58. 31. Often, gifted children are rejected because people are envious of them. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

59. 32. The regular school program stifles the intellectual curiosity of gifted children. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

60. 33. The leaders of tomorrow's society will come mostly from the gifted of today. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

61. 34. A greater number of gifted children should be allowed to skip a grade. *

Mark only one oval.

	1	2	3	4	5	
Totally Disagree	☐	☐	☐	☐	☐	Totally Agree

Opinions about the gifted and their education

62. Please feel free to comment on your opinions related to gifted children and their education:

Thank you!

Thank you for taking the time to complete this survey. The information you have provided will contribute to improve the teaching practices we carry out with our students. Feel free to contact me (rimajprakash@gmail.com) if you have any additional comments or feedback about this research.

APPENDIX B

An adapted version of The Classroom Observation Scale-Revised

***Adapted version of The William and Mary Classroom
Observation Scales, Revised (Part 1) Teacher Observation***

Joyce VanTassel-Baska, Ed.D.

Linda Avery, Ph.D.

Jeanne Struck, Ph.D.

Annie Feng, Ed.D.

Bruce Bracken, Ph.D.

Dianne Drummond, M.Ed.

Tamra Stambaugh, M.Ed.

Observer _____

School _____

Teacher _____

Date _____

N. of minutes observed _____

Grade _____

L
SEP

Please outline what you have observed in the classroom with respect to curriculum and instruction-related activities. Describe the specific lesson, its organization, instructional methods used, characteristics of the learning experience and environment, texts and materials used, questions asked by the teacher, and any other relevant observations and impressions that may influence your completion of the attached checklist.

Texts and Materials: *(List any materials, novels, texts, etc. used by students and/or the teacher.)*

The William and Mary Classroom Observation Scales, Revised (Part 2)
Teacher Observation

Joyce VanTassel-Baska, Ed.D.
Bruce Bracken, Ph.D.

Linda Avery, Ph.D.
Dianne Drummond, M.Ed.

Jeanne Struck, Ph.D.

Annie Feng, Ed.D.
Tamra Stambaugh, M.Ed.

Directions: Please employ the following scale as you rate each of the checklist items. Rate each item according to how well the teacher characteristic or behavior was demonstrated during the observed instructional activity. Each item is judged on an individual, self-contained basis, regardless of its relationship to an overall set of behaviors relevant to the cluster heading.

3=Effective	2=Somewhat Effective	1=Ineffective	N/O = Not Observed		
The teacher evidenced careful planning and classroom flexibility in implementation of the behavior, eliciting many appropriate student responses. The teacher was clear, and sustained focus on the purposes of learning.	The teacher evidenced some planning and/or classroom flexibility in implementation of the behavior, eliciting some appropriate student responses. The teacher was sometimes clear and focused on the purposes of learning.	The teacher evidenced little or no planning and/or classroom flexibility in implementation of the behavior, eliciting minimal appropriate student responses. The teacher was unclear and unfocused regarding the purpose of learning.	The listed behavior was not demonstrated during the time of the observation. (NOTE: There must be an obvious attempt made for the certain behavior to be rated "ineffective" instead of "not observed".)		
General Teaching Behaviors					
Curriculum Planning and Delivery		3	2	1	N/O
The teacher...					
1. set high expectations for student performance.					
2. incorporated activities for students to apply new knowledge.					
3. engaged students in planning, monitoring or assessing their learning.					
4. encouraged students to express their thoughts.					
5. had students reflect on what they had learned.					
Comments:					
Differentiated Teaching Behaviors					
Accommodations for Individual Differences		3	2	1	N/O
The teacher...					
6. provided opportunities for independent or group learning to promote depth in understanding content.					
7. accommodated individual or subgroup differences (e.g., through individual conferencing, student or teacher choice in material selection and task assignments.)					
8. encouraged multiple interpretations of events and situations.					
9. allowed students to discover key ideas individually through structured activities and/or questions.					
Comments:					
Problem Solving		3	2	1	N/O
The teacher...					
10. employed brainstorming techniques.					
11. engaged students in problem identification and definition					
12. engaged students in solution-finding activities and comprehensive solution articulation.					
Comments:					

APPENDIX C

Opinions about the Gifted and their Education (OGE):

Respondent means and standard Deviations per construct and across constructs

Case Summaries^a

	Needs and Support (Mean)	Needs and Support (St.Dev.)	Resistance to objections (Mean)	Resistance to objections (St.Dev.)	Ability grouping (Mean)	Ability grouping (St.Dev.)	Rejection (Mean)	Rejection (St.Dev.)	Total Mean	Classific.
1	5,00	,00	2,29	1,60	2,00	1,41	3,67	,58	3,24	ambivalent
2	3,80	,84	3,00	1,73	3,00	1,41	2,33	,58	3,03	ambivalent
3	3,80	1,30	3,86	1,07	2,25	,96	2,33	1,15	3,06	ambivalent
4	4,60	,55	2,57	,98	2,75	,50	3,33	,58	3,31	positive
5	4,60	,55	3,86	1,46	2,75	,50	4,67	,58	3,97	positive
6	4,80	,45	4,00	1,73	3,25	,50	2,67	,58	3,68	positive
7	4,40	,89	3,29	,49	2,50	,58	3,33	,58	3,38	positive
8	3,80	,45	3,29	1,11	3,25	,50	2,33	,58	3,17	ambivalent
9	3,80	,45	3,57	1,13	2,00	,82	3,33	,58	3,18	ambivalent
10	4,20	1,30	3,57	1,27	2,25	,96	3,00	1,00	3,26	positive
11	2,80	1,79	3,00	1,29	4,50	1,00	3,00	2,00	3,33	positive
12	4,20	1,10	3,57	,98	3,25	,50	3,00	1,00	3,51	positive
13	3,80	1,30	3,43	1,40	2,50	1,00	2,00	,00	2,93	ambivalent
14	5,00	,00	4,14	1,46	3,00	1,15	4,00	1,00	4,04	high positive
15	4,20	,84	3,71	1,89	3,00	,00	3,00	,00	3,48	positive
16	3,60	,55	3,00	,58	2,50	,58	2,33	,58	2,86	ambivalent
17	4,40	,89	3,00	1,63	2,00	,82	4,33	,58	3,43	positive
18	3,80	,45	3,43	,79	3,50	,58	1,33	,58	3,02	ambivalent
19	3,60	,55	3,29	,49	2,00	,82	2,33	,58	2,81	ambivalent
20	5,00	,00	4,14	1,07	3,50	,58	4,00	1,00	4,16	high positive
21	5,00	,00	4,14	1,21	3,75	1,50	2,67	1,53	3,89	positive
22	4,40	,89	5,00	,00	2,75	1,71	2,00	1,00	3,54	positive
23	4,20	,84	4,14	,69	2,25	1,89	2,67	,58	3,32	positive
24	4,00	1,41	2,29	1,38	2,00	1,15	2,00	1,00	2,57	negative
25	5,00	,00	3,71	1,50	2,00	,00	5,00	,00	3,93	positive

26	3,60	,89	2,71	,76	1,75	,96	2,67	,58	2,68	negative
27	3,60	,89	3,86	,69	3,75	,96	3,33	1,15	3,64	positive
28	3,40	,89	3,57	1,90	2,25	1,26	1,00	,00	2,56	negative
29	3,40	,89	3,57	1,90	2,25	1,26	1,00	,00	2,56	negative
30	5,00	,00	4,00	1,29	1,00	,00	3,67	1,15	3,42	positive
31	4,60	,55	4,86	,38	3,50	1,00	3,33	,58	4,07	high positive
32	3,60	1,67	3,57	1,27	3,50	1,29	2,00	1,00	3,17	ambivalent
33	3,00	,71	3,57	,79	3,50	1,00	2,67	,58	3,19	ambivalent
34	3,60	,55	4,14	,90	4,00	,82	2,00	,00	3,44	positive
35	4,80	,45	3,71	,95	3,25	,96	3,00	1,00	3,69	positive
36	4,60	,89	3,71	1,11	2,25	,50	1,33	,58	2,97	ambivalent
37	4,80	,45	3,00	1,41	2,50	1,29	4,33	1,15	3,66	positive
38	4,60	,55	3,29	,95	2,50	1,73	4,00	,00	3,60	positive
39	4,40	,89	3,43	1,27	3,00	1,83	3,33	1,15	3,54	positive
40	3,60	1,14	3,57	1,13	3,50	1,29	2,33	,58	3,25	positive
41	4,20	,84	3,43	1,13	1,75	,96	3,00	,00	3,10	ambivalent
42	3,40	,55	2,86	1,07	2,75	1,50	1,67	,58	2,67	negative
43	4,60	,89	3,14	1,68	3,00	,00	1,00	,00	2,94	ambivalent
44	4,00	,71	3,86	,69	2,75	1,71	2,67	,58	3,32	positive
45	4,20	1,30	2,57	1,51	1,00	,00	1,67	1,15	2,36	negative
46	4,20	,45	3,43	,98	3,50	1,00	4,33	,58	3,87	positive
47	5,00	,00	4,71	,76	4,00	2,00	1,00	,00	3,68	positive
48	3,80	,84	4,14	,90	3,00	,82	2,67	,58	3,40	positive
49	4,40	,89	2,71	,76	2,50	,58	3,67	,58	3,32	positive
50	4,00	1,00	3,86	,38	3,50	,58	3,33	,58	3,67	positive
51	4,80	,45	4,57	,79	3,25	,96	3,67	,58	4,07	high positive
52	3,60	,55	3,71	,95	2,25	,96	1,33	,58	2,72	negative
53	4,40	,55	2,71	1,60	4,50	,58	3,67	,58	3,82	positive

54	4,60	,55	3,71	,95	3,00	,82	3,00	1,00	3,58	positive
55	3,80	1,10	3,29	,76	3,50	1,29	2,67	1,53	3,32	positive
56	4,40	,55	4,00	1,15	2,75	,96	4,00	1,00	3,79	positive
57	4,60	,55	3,43	,79	2,00	,82	4,33	,58	3,59	positive
58	4,20	1,30	4,57	,79	2,75	,96	3,33	2,08	3,71	positive
59	3,20	,84	2,86	,38	3,00	,00	2,33	1,15	2,85	ambivalent
60	4,40	,55	4,71	,49	2,25	1,26	3,67	,58	3,76	positive
61	4,20	,84	4,71	,49	4,00	,00	3,00	,00	3,98	positive
62	5,00	,00	3,57	1,81	3,50	1,91	1,33	,58	3,35	positive
63	3,60	,89	3,86	,69	3,50	,58	3,00	1,00	3,49	positive
64	4,60	,55	4,00	,82	3,25	,50	3,67	,58	3,88	positive
65	3,60	,55	4,00	1,00	3,00	1,41	2,67	1,15	3,32	positive
66	3,40	,55	5,00	,00	4,50	,58	1,33	,58	3,56	positive
67	5,00	,00	3,71	1,38	3,50	,58	3,67	1,15	3,97	positive
68	4,80	,45	4,29	,76	3,00	,82	3,33	1,15	3,86	positive
69	4,00	,71	2,43	,53	3,50	1,00	2,33	1,15	3,07	ambivalent
70	4,40	,89	3,43	,79	2,75	,50	2,33	,58	3,23	ambivalent
71	3,60	,55	3,71	,49	2,50	,58	3,00	,00	3,20	ambivalent
72	4,80	,45	3,43	,79	3,50	,58	3,00	,00	3,68	positive
73	5,00	,00	3,43	1,40	3,50	,58	4,00	1,00	3,98	positive
74	4,20	1,30	4,43	,53	2,75	,96	2,67	,58	3,51	positive
75	4,60	,55	2,57	1,27	3,50	1,73	2,33	,58	3,25	positive
76	4,40	,89	5,00	,00	4,00	1,15	1,00	,00	3,60	positive
77	5,00	,00	2,86	,69	3,00	,00	2,00	1,00	3,22	ambivalent
78	3,80	,45	4,00	,82	2,75	,96	3,00	1,00	3,39	positive
79	5,00	,00	3,86	1,95	4,25	1,50	4,67	,58	4,45	high positive
80	4,80	,45	3,43	1,13	2,50	1,29	3,67	,58	3,60	positive
81	3,00	,71	2,71	1,25	3,00	,82	2,67	,58	2,85	ambivalent

82	4,80	,45	3,71	1,25	3,75	,50	3,33	1,15	3,90	positive
83	3,20	,84	3,86	,38	3,00	1,83	1,67	,58	2,93	ambivalent
84	3,60	,89	3,00	1,15	2,50	,58	3,33	,58	3,11	ambivalent
85	3,80	1,10	2,86	1,35	1,00	,00	2,33	1,53	2,50	negative
86	3,80	1,30	2,86	,69	2,75	1,71	3,33	,58	3,19	ambivalent
87	4,00	,71	4,43	,79	3,00	,00	4,00	,00	3,86	positive
88	5,00	,00	5,00	,00	1,25	,50	5,00	,00	4,06	high positive
89	4,40	,89	3,00	1,41	2,00	1,15	3,00	,00	3,10	ambivalent
90	5,00	,00	4,14	1,07	3,25	,96	3,67	1,53	4,02	high positive
91	5,00	,00	4,43	,98	2,25	,96	2,33	1,15	3,50	positive
92	5,00	,00	3,57	1,13	3,25	,50	4,33	1,15	4,04	high positive
93	3,60	,89	4,57	,79	2,75	1,26	2,00	1,00	3,23	ambivalent
94	4,20	,84	3,29	1,11	3,25	,96	3,33	,58	3,52	positive
95	4,40	,55	2,86	,69	1,75	,50	2,67	1,15	2,92	ambivalent
96	4,80	,45	4,29	,95	2,75	,50	4,33	,58	4,04	high positive
97	4,60	,55	4,14	1,21	2,25	1,26	3,67	,58	3,67	positive
98	4,40	,89	1,43	,53	3,00	1,41	2,67	1,15	2,88	ambivalent
99	4,40	,55	3,29	1,38	1,25	,50	2,67	1,15	2,90	ambivalent
100	4,00	1,41	3,29	1,60	4,50	1,00	2,00	1,73	3,45	positive
101	3,20	1,10	2,86	1,35	3,75	1,50	2,67	1,53	3,12	ambivalent
102	4,60	,89	2,14	,90	3,00	1,41	2,67	,58	3,10	ambivalent
103	4,40	,55	4,29	1,11	2,00	,82	2,67	,58	3,34	positive
104	4,40	,89	3,71	,95	2,75	,50	2,67	,58	3,38	positive
105	3,40	1,34	4,14	,90	2,75	,96	1,00	,00	2,82	ambivalent
106	4,20	,84	4,57	1,13	3,00	1,41	4,33	,58	4,03	high positive
107	4,60	,89	3,86	1,68	2,00	,82	2,67	,58	3,28	positive
108	3,60	,89	4,00	1,15	2,25	1,89	3,33	,58	3,30	positive
109	3,40	1,34	3,57	1,27	1,75	,50	4,00	1,00	3,18	ambivalent

110	1,40	,89	1,29	,76	1,00	,00	1,00	,00	1,17	very negative

a. 110 cases.

APPENDIX D

Attitudes towards the Gifted and their Education Scale (OGE):

Respondent means per item and means per construct

Needs and Support

	q9	q14	q15	q16rec	q24	Mean	Classificationnn
1	5	5	5	5	5	5	high positive
2	3	4	5	3	4	3,8	positive
3	5	3	5	2	4	3,8	positive
4	5	5	5	4	4	4,6	high positive
5	4	5	5	5	4	4,6	high positive
6	4	5	5	5	5	4,8	high positive
7	5	5	4	5	3	4,4	high positive
8	4	4	4	4	3	3,8	positive
9	4	4	4	4	3	3,8	positive
10	2	5	5	5	4	4,2	high positive
11	1	1	5	3	4	2,8	ambivalent
12	3	5	5	3	5	4,2	high positive
13	2	5	5	4	3	3,8	positive
14	5	5	5	5	5	5	high positive
15	4	5	5	4	3	4,2	high positive
16	3	4	4	4	3	3,6	positive
17	5	5	5	4	3	4,4	high positive
18	4	4	4	4	3	3,8	positive
19	3	4	4	4	3	3,6	positive
20	5	5	5	5	5	5	high positive
21	5	5	5	5	5	5	high positive
22	4	5	5	5	3	4,4	high positive
23	3	4	5	4	5	4,2	high positive
24	5	5	2	5	3	4	high positive
25	5	5	5	5	5	5	high positive

26	3	5	3	4	3	3,6	positive
27	4	4	4	2	4	3,6	positive
28	4	4	4	3	2	3,4	positive
29	4	4	4	3	2	3,4	positive
30	5	5	5	5	5	5	high positive
31	4	5	5	5	4	4,6	high positive
32	5	1	3	5	4	3,6	positive
33	2	3	3	4	3	3	ambivalent
34	3	4	4	4	3	3,6	positive
35	4	5	5	5	5	4,8	high positive
36	5	5	5	5	3	4,6	high positive
37	5	5	5	4	5	4,8	high positive
38	4	5	5	5	4	4,6	high positive
39	5	5	3	5	4	4,4	high positive
40	4	2	5	3	4	3,6	positive
41	5	5	4	4	3	4,2	high positive
42	3	4	4	3	3	3,4	positive
43	3	5	5	5	5	4,6	high positive
44	3	5	4	4	4	4	high positive
45	2	5	4	5	5	4,2	high positive
46	4	5	4	4	4	4,2	high positive
47	5	5	5	5	5	5	high positive
48	4	3	4	5	3	3,8	positive
49	5	5	5	3	4	4,4	high positive
50	5	4	3	5	3	4	high positive
51	5	5	5	5	4	4,8	high positive
52	4	4	4	3	3	3,6	positive

53	5	4	4	5	4	4,4	high positive
54	5	5	4	4	5	4,6	high positive
55	5	4	4	4	2	3,8	positive
56	5	5	4	4	4	4,4	high positive
57	5	5	5	4	4	4,6	high positive
58	5	5	4	5	2	4,2	high positive
59	3	4	4	2	3	3,2	ambivalent
60	5	4	4	5	4	4,4	high positive
61	4	5	4	5	3	4,2	high positive
62	5	5	5	5	5	5	high positive
63	3	4	3	5	3	3,6	positive
64	5	5	5	4	4	4,6	high positive
65	3	4	4	4	3	3,6	positive
66	4	4	3	3	3	3,4	positive
67	5	5	5	5	5	5	high positive
68	5	5	5	4	5	4,8	high positive
69	5	4	4	3	4	4	high positive
70	5	5	4	5	3	4,4	high positive
71	3	4	4	4	3	3,6	positive
72	4	5	5	5	5	4,8	high positive
73	5	5	5	5	5	5	high positive
74	5	5	5	4	2	4,2	high positive
75	5	5	5	4	4	4,6	high positive
76	4	5	5	5	3	4,4	high positive
77	5	5	5	5	5	5	high positive
78	4	4	4	4	3	3,8	positive
79	5	5	5	5	5	5	high positive

80	5	5	5	5	4	4,8	high positive
81	2	3	4	3	3	3	ambivalent
82	5	5	5	5	4	4,8	high positive
83	2	4	3	4	3	3,2	ambivalent
84	4	4	4	4	2	3,6	positive
85	4	5	4	4	2	3,8	positive
86	2	5	5	4	3	3,8	positive
87	4	4	5	4	3	4	high positive
88	5	5	5	5	5	5	high positive
89	3	5	4	5	5	4,4	high positive
90	5	5	5	5	5	5	high positive
91	5	5	5	5	5	5	high positive
92	5	5	5	5	5	5	high positive
93	4	4	4	4	2	3,6	positive
94	4	5	4	5	3	4,2	high positive
95	4	5	4	5	4	4,4	high positive
96	5	5	5	4	5	4,8	high positive
97	5	5	5	4	4	4,6	high positive
98	5	5	4	5	3	4,4	high positive
99	4	5	4	5	4	4,4	high positive
100	2	5	3	5	5	4	high positive
101	3	3	2	5	3	3,2	ambivalent
102	5	5	5	5	3	4,6	high positive
103	4	4	5	4	5	4,4	high positive
104	4	5	5	5	3	4,4	high positive
105	2	4	4	2	5	3,4	positive
106	4	5	4	5	3	4,2	high positive

107	5	5	5	5	3	4,6	high positive
108	2	4	4	4	4	3,6	positive
109	5	4	4	2	2	3,4	positive
110	1	1	1	1	3	1,4	very negative
Total	Mean					4,182	high positive

a. 110 cases.

Resistance to objections

Resistance to objections								
	q3rec	q5rec	q12rec	q26rec	q27rec	q28rec	q30	MEAN
1	1	2	1	2	4	1	5	2,29
2	2	3	4	1	1	5	5	3,00
3	2	5	3	4	4	5	4	3,86
4	1	2	3	4	3	3	2	2,57
5	1	4	3	5	5	4	5	3,86
6	1	2	5	5	5	5	5	4,00
7	4	3	3	3	3	3	4	3,29
8	2	4	3	5	3	4	2	3,29
9	2	2	4	4	4	4	5	3,57
10	3	5	2	5	2	4	4	3,57
11	1	4	2	2	4	4	4	3,00
12	2	4	3	3	5	4	4	3,57
13	3	5	3	1	5	4	3	3,43
14	1	4	5	5	4	5	5	4,14
15	1	5	1	5	5	4	5	3,71
16	3	3	2	3	3	4	3	3,00
17	1	4	5	4	1	2	4	3,00
18	3	4	2	4	4	4	3	3,43
19	3	4	3	3	3	3	4	3,29
20	4	4	5	5	4	2	5	4,14
21	2	5	5	5	3	4	5	4,14
22	5	5	5	5	5	5	5	5,00

23	4	5	4	4	3	4	5	4,14
24	3	5	2	1	1	2	2	2,29
25	1	3	5	3	5	4	5	3,71
26	2	3	3	3	2	4	2	2,71
27	4	5	3	4	3	4	4	3,86
28	1	5	1	5	3	5	5	3,57
29	1	5	1	5	3	5	5	3,57
30	5	5	2	5	3	3	5	4,00
31	5	5	5	5	5	5	4	4,86
32	4	4	4	5	3	4	1	3,57
33	3	4	4	5	3	3	3	3,57
34	5	5	3	5	3	4	4	4,14
35	4	4	4	2	4	3	5	3,71
36	2	5	4	5	4	3	3	3,71
37	1	5	2	2	4	4	3	3,00
38	2	5	3	3	3	3	4	3,29
39	1	3	3	5	4	4	4	3,43
40	2	5	4	4	4	2	4	3,57
41	3	2	5	4	4	2	4	3,43
42	2	4	2	4	2	4	2	2,86
43	1	1	5	3	4	5	3	3,14
44	4	5	4	4	3	4	3	3,86
45	1	1	5	3	2	2	4	2,57
46	4	2	4	4	4	2	4	3,43
47	5	5	5	5	3	5	5	4,71

48	5	5	3	5	4	4	3	4,14
49	2	2	3	3	3	2	4	2,71
50	4	4	3	4	4	4	4	3,86
51	5	3	5	5	5	4	5	4,57
52	2	4	3	4	4	5	4	3,71
53	1	2	1	4	2	5	4	2,71
54	3	5	3	5	3	4	3	3,71
55	2	4	3	3	4	4	3	3,29
56	2	3	4	5	4	5	5	4,00
57	3	3	3	5	3	3	4	3,43
58	3	4	5	5	5	5	5	4,57
59	3	3	2	3	3	3	3	2,86
60	4	5	4	5	5	5	5	4,71
61	5	5	5	5	4	4	5	4,71
62	1	5	1	4	5	4	5	3,57
63	4	4	4	5	3	3	4	3,86
64	4	5	4	4	3	3	5	4,00
65	3	5	5	5	3	3	4	4,00
66	5	5	5	5	5	5	5	5,00
67	1	5	4	5	4	3	4	3,71
68	3	4	5	5	4	5	4	4,29
69	3	3	2	2	2	2	3	2,43
70	3	4	3	5	3	3	3	3,43
71	3	4	4	4	3	4	4	3,71
72	3	4	5	3	3	3	3	3,43

73	1	3	3	5	3	4	5	3,43
74	4	5	5	5	4	4	4	4,43
75	1	1	3	4	4	2	3	2,57
76	5	5	5	5	5	5	5	5,00
77	2	3	4	3	3	3	2	2,86
78	3	3	4	5	4	4	5	4,00
79	1	5	1	5	5	5	5	3,86
80	2	4	5	4	2	3	4	3,43
81	1	2	2	4	2	4	4	2,71
82	2	5	5	4	4	2	4	3,71
83	3	4	4	4	4	4	4	3,86
84	3	2	2	5	2	3	4	3,00
85	1	3	2	5	2	3	4	2,86
86	3	4	2	3	3	3	2	2,86
87	3	5	5	5	5	4	4	4,43
88	5	5	5	5	5	5	5	5,00
89	2	4	4	1	2	3	5	3,00
90	5	2	4	5	4	4	5	4,14
91	5	3	5	5	5	5	3	4,43
92	4	5	3	2	3	3	5	3,57
93	5	5	5	5	5	3	4	4,57
94	2	4	2	5	3	3	4	3,29
95	3	4	2	3	2	3	3	2,86
96	3	5	5	5	3	4	5	4,29
97	2	5	5	4	5	5	3	4,14

98	1	2	1	2	1	2	1	1,43
99	3	4	1	5	2	4	4	3,29
100	1	5	4	2	2	5	4	3,29
101	1	4	1	3	4	3	4	2,86
102	1	1	3	3	3	2	2	2,14
103	2	5	5	5	4	4	5	4,29
104	2	3	4	5	4	4	4	3,71
105	4	5	5	3	3	4	5	4,14
106	2	5	5	5	5	5	5	4,57
107	4	5	5	5	1	2	5	3,86
108	4	5	5	2	4	3	5	4,00
109	4	4	4	1	4	3	5	3,57
110	1	1	1	1	1	3	1	1,29

Total Mean

posit
ive 3,59

a. 110 cases.

Rejection

Case Summaries^a

	q19	q22	q31		
1	4	4	3	3,67	positive
2	3	2	2	2,33	negative
3	3	3	1	2,33	negative
4	4	3	3	3,33	positive
5	5	4	5	4,67	high positive
6	3	2	3	2,67	negative
7	4	3	3	3,33	positive
8	3	2	2	2,33	negative
9	3	4	3	3,33	positive
10	2	3	4	3,00	ambivalent
11	3	1	5	3,00	ambivalent
12	3	4	2	3,00	ambivalent
13	2	2	2	2,00	negative
14	3	5	4	4,00	high positive
15	3	3	3	3,00	ambivalent
16	2	2	3	2,33	negative
17	4	5	4	4,33	high positive
18	1	1	2	1,33	very negative
19	2	2	3	2,33	negative
20	5	3	4	4,00	high positive
21	4	1	3	2,67	negative
22	2	1	3	2,00	negative
23	2	3	3	2,67	negative
24	3	1	2	2,00	negative

25	5	5	5	5,00	high positive
26	2	3	3	2,67	negative
27	4	2	4	3,33	positive
28	1	1	1	1,00	very negative
29	1	1	1	1,00	very negative
30	5	3	3	3,67	positive
31	3	3	4	3,33	positive
32	3	1	2	2,00	negative
33	3	2	3	2,67	negative
34	2	2	2	2,00	negative
35	2	4	3	3,00	ambivalent
36	1	1	2	1,33	very negative
37	5	5	3	4,33	high positive
38	4	4	4	4,00	high positive
39	4	4	2	3,33	positive
40	3	2	2	2,33	negative
41	3	3	3	3,00	ambivalent
42	2	2	1	1,67	very negative
43	1	1	1	1,00	very negative
44	3	3	2	2,67	negative
45	3	1	1	1,67	very negative
46	4	5	4	4,33	high positive
47	1	1	1	1,00	very negative
48	3	2	3	2,67	negative
49	4	3	4	3,67	positive
50	3	3	4	3,33	positive
51	4	4	3	3,67	positive
52	2	1	1	1,33	very negative

53	4	4	3	3,67	positive
54	2	4	3	3,00	ambivalent
55	3	1	4	2,67	negative
56	3	5	4	4,00	high positive
57	5	4	4	4,33	high positive
58	1	5	4	3,33	positive
59	3	1	3	2,33	negative
60	3	4	4	3,67	positive
61	3	3	3	3,00	ambivalent
62	1	2	1	1,33	very negative
63	3	2	4	3,00	ambivalent
64	4	3	4	3,67	positive
65	4	2	2	2,67	negative
66	1	2	1	1,33	very negative
67	3	5	3	3,67	positive
68	2	4	4	3,33	positive
69	1	3	3	2,33	negative
70	3	2	2	2,33	negative
71	3	3	3	3,00	ambivalent
72	3	3	3	3,00	ambivalent
73	5	3	4	4,00	high positive
74	3	2	3	2,67	negative
75	3	2	2	2,33	negative
76	1	1	1	1,00	very negative
77	3	1	2	2,00	negative
78	2	4	3	3,00	ambivalent
79	5	5	4	4,67	high positive
80	3	4	4	3,67	positive

81	3	2	3	2,67	negative
82	2	4	4	3,33	positive
83	2	1	2	1,67	very negative
84	3	4	3	3,33	positive
85	2	4	1	2,33	negative
86	3	4	3	3,33	positive
87	4	4	4	4,00	high positive
88	5	5	5	5,00	high positive
89	3	3	3	3,00	ambivalent
90	2	4	5	3,67	positive
91	3	1	3	2,33	negative
92	3	5	5	4,33	high positive
93	3	1	2	2,00	negative
94	3	3	4	3,33	positive
95	2	4	2	2,67	negative
96	5	4	4	4,33	high positive
97	3	4	4	3,67	positive
98	2	2	4	2,67	negative
99	4	2	2	2,67	negative
100	1	1	4	2,00	negative
101	1	4	3	2,67	negative
102	2	3	3	2,67	negative
103	2	3	3	2,67	negative
104	3	3	2	2,67	negative
105	1	1	1	1,00	very negative
106	4	5	4	4,33	high positive
107	3	2	3	2,67	negative
108	4	3	3	3,33	positive

109		3	4	5	4,00	high positive
110		1	1	1	1,00	very negative
Total	Mean				2,88	ambivalent

a. 110 cases.

Ability grouping

Case Summaries^a

	q2	q6rec	q20rec	q21rec		
1	1	4	2	1	2,00	negative
2	3	5	2	2	3,00	ambivalent
3	3	3	2	1	2,25	negative
4	3	3	2	3	2,75	ambivalent
5	2	3	3	3	2,75	ambivalent
6	3	4	3	3	3,25	positive
7	2	2	3	3	2,50	negative
8	3	4	3	3	3,25	positive
9	3	2	2	1	2,00	negative
10	1	3	3	2	2,25	negative
11	5	5	3	5	4,50	high positive
12	3	4	3	3	3,25	positive
13	1	3	3	3	2,50	negative
14	2	4	2	4	3,00	ambivalent
15	3	3	3	3	3,00	ambivalent
16	3	3	2	2	2,50	negative
17	3	1	2	2	2,00	negative
18	3	4	3	4	3,50	positive
19	1	2	3	2	2,00	negative
20	4	4	3	3	3,50	positive
21	5	5	2	3	3,75	positive
22	2	5	3	1	2,75	ambivalent
23	1	5	2	1	2,25	negative
24	3	1	3	1	2,00	negative

25	2	2	2	2	2,00	negative
26	2	1	3	1	1,75	very negative
27	3	5	3	4	3,75	positive
28	2	4	2	1	2,25	negative
29	2	4	2	1	2,25	negative
30	1	1	1	1	1,00	very negative
31	3	5	3	3	3,50	positive
32	2	5	3	4	3,50	positive
33	3	5	3	3	3,50	positive
34	3	5	4	4	4,00	high positive
35	4	4	3	2	3,25	positive
36	2	2	3	2	2,25	negative
37	4	3	2	1	2,50	negative
38	1	5	2	2	2,50	negative
39	5	1	4	2	3,00	ambivalent
40	3	5	4	2	3,50	positive
41	1	3	2	1	1,75	very negative
42	1	4	2	4	2,75	ambivalent
43	3	3	3	3	3,00	ambivalent
44	1	5	3	2	2,75	ambivalent
45	1	1	1	1	1,00	very negative
46	3	5	3	3	3,50	positive
47	5	5	5	1	4,00	high positive
48	3	4	3	2	3,00	ambivalent
49	3	2	3	2	2,50	negative
50	3	4	3	4	3,50	positive
51	2	4	4	3	3,25	positive
52	1	3	2	3	2,25	negative

53	4	5	5	4	4,50	high positive
54	3	4	3	2	3,00	ambivalent
55	2	5	4	3	3,50	positive
56	3	4	2	2	2,75	ambivalent
57	3	1	2	2	2,00	negative
58	2	4	3	2	2,75	ambivalent
59	3	3	3	3	3,00	ambivalent
60	2	4	2	1	2,25	negative
61	4	4	4	4	4,00	high positive
62	5	5	3	1	3,50	positive
63	4	4	3	3	3,50	positive
64	3	4	3	3	3,25	positive
65	2	5	3	2	3,00	ambivalent
66	4	5	4	5	4,50	high positive
67	3	4	4	3	3,50	positive
68	3	3	4	2	3,00	ambivalent
69	3	3	5	3	3,50	positive
70	3	2	3	3	2,75	ambivalent
71	3	2	3	2	2,50	negative
72	3	4	4	3	3,50	positive
73	4	3	4	3	3,50	positive
74	2	2	3	4	2,75	ambivalent
75	5	2	5	2	3,50	positive
76	3	3	5	5	4,00	high positive
77	3	3	3	3	3,00	ambivalent
78	2	4	2	3	2,75	ambivalent
79	5	5	5	2	4,25	high positive
80	3	4	2	1	2,50	negative

81	4	3	2	3	3,00	ambivalent
82	3	4	4	4	3,75	positive
83	1	4	5	2	3,00	ambivalent
84	3	3	2	2	2,50	negative
85	1	1	1	1	1,00	very negative
86	1	5	2	3	2,75	ambivalent
87	3	3	3	3	3,00	ambivalent
88	1	1	2	1	1,25	very negative
89	3	1	3	1	2,00	negative
90	3	2	4	4	3,25	positive
91	1	3	3	2	2,25	negative
92	3	4	3	3	3,25	positive
93	1	3	4	3	2,75	ambivalent
94	4	4	3	2	3,25	positive
95	2	2	2	1	1,75	very negative
96	3	3	3	2	2,75	ambivalent
97	1	2	4	2	2,25	negative
98	5	2	2	3	3,00	ambivalent
99	1	2	1	1	1,25	very negative
100	5	5	3	5	4,50	high positive
101	5	5	2	3	3,75	positive
102	5	3	2	2	3,00	ambivalent
103	1	3	2	2	2,00	negative
104	3	2	3	3	2,75	ambivalent
105	3	4	2	2	2,75	ambivalent
106	3	5	2	2	3,00	ambivalent
107	2	3	2	1	2,00	negative
108	1	5	2	1	2,25	negative

109		2	2	2	1	1,75	very negative
110		1	1	1	1	1,00	very negative
Total	Mean					2,83	ambivalent

a. 110 cases.

APPENDIX E

Data Analysis of Classroom Practices Questionnaire and Dependent Variables

Table E1. Multiple Comparisons Dependent Variable (type of school): Rank of q19 - Scheffe

(I) Current School	(J) Current School	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public	Private Portuguese	,389	,567	,792	-1,07	1,85
	Private/English Internacional	-1,389	,591	,078	-2,91	,13
Private Portuguese	Public	-,389	,567	,792	-1,85	1,07
	Private/English Internacional	-1,778*	,675	,043	-3,51	-,04
Private/English Internacional	Public	1,389	,591	,078	-,13	2,91
	Private Portuguese	1,778*	,675	,043	,04	3,51

*. The mean difference is significant at the 0.05 level.

Table E2. Multiple Comparisons Dependent Variable (type of school): Rank of q25 - Scheffe

(I) Current School	(J) Current School	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public	Private Portuguese	-,167	,517	,949	-1,49	1,16
	Private/English Internacional	-1,375*	,538	,049	-2,76	,01
Private Portuguese	Public	,167	,517	,949	-1,16	1,49
	Private/English Internacional	-1,208	,616	,162	-2,79	,37
Private/English Internacional	Public	1,375*	,538	,049	-,01	2,76
	Private Portuguese	1,208	,616	,162	-,37	2,79

*. The mean difference is significant at the 0.05 level.

Table E3 Multiple Comparisons Dependent Variable (type of school): Rank of q26 - Scheffe

(I) Current School	(J) Current School	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public	Private Portuguese	-,111	,489	,975	-1,37	1,15
	Private/English Internacional	-1,222*	,509	,048	-2,53	,09
Private Portuguese	Public	,111	,489	,975	-1,15	1,37
	Private/English Internacional	-1,111	,583	,179	-2,61	,38
Private/English Internacional	Public	1,222*	,509	,048	-,09	2,53
	Private Portuguese	1,111	,583	,179	-,38	2,61

*. The mean difference is significant at the 0.05 level

Table E4 CrossTab for Years of Teaching for q 20

Years Teaching rec * q20 Crosstabulation									
Years Teaching rec	Teaching [1,20[	Count	q20				Total		
			1	2	3	4			
			9	3	1	1	14		
		% within Teaching rec	64,3%	21,4%	7,1%	7,1%	100,0%		
	>=20	Count	20	0	1	0	21		
		% within Teaching rec	95,2%	0,0%	4,8%	0,0%	100,0%		
Total		Count	29	3	2	1	35		
		% within Teaching rec	82,9%	8,6%	5,7%	2,9%	100,0%		

Table E5 Crosstab for Number of Weekly hours for q 2

N° of weekly teaching hours of English per class * q2 Crosstabulation							
		q2					
		1	2	3	4	5	Total
<=4	Count	10	5	5	5	0	25
	% within N° of weekly teaching hours of English per class	40,0%	20,0%	20,0%	20,0%	0,0%	100,0%
>4	Count	0	2	3	2	3	10
	% within N° of weekly teaching hours of English per class	0,0%	20,0%	30,0%	20,0%	30,0%	100,0%
Total	Count	10	7	8	7	3	35
	% within N° of weekly teaching hours of English per class	28,6%	20,0%	22,9%	20,0%	8,6%	100,0%

Table E6 Crosstab for Number of Weekly hours for q 3

N° of weekly teaching hours of English per class * q3 Crosstabulation							
		q3					
		1	2	3	4	Total	
< = 4	Count	11	9	4	1	25	
	% within N° of weekly teaching hours of English per class	44,0%	36,0%	16,0%	4,0%	100,0%	
> 4	Count	2	2	4	2	10	
	% within N° of weekly teaching hours of English per class	20,0%	20,0%	40,0%	20,0%	100,0%	
Total	Count	13	11	8	3	35	
	% within N° of weekly teaching hours of English per class	37,1%	31,4%	22,9%	8,6%	100,0%	

Table E7 CrossTab for Number of Weekly hours for q 5

N° of weekly teaching hours of English per class * q5 Crosstabulation							
		q5					
		1	2	3	4	5	Total
<=4	Count	8	9	5	3	0	25
	% within N° of weekly teaching hours of English per class	32,0%	36,0%	20,0%	12,0%	0,0%	100,0%
>4	Count	0	3	3	3	1	10
	% within N° of weekly teaching hours of English per class	0,0%	30,0%	30,0%	30,0%	10,0%	100,0%
Total	Count	8	12	8	6	1	35
	% within N° of weekly teaching hours of English per class	22,9%	34,3%	22,9%	17,1%	2,9%	100,0%

Table E8 CrossTab for Number of Weekly hours for q 9

N° of weekly teaching hours of English per class * q9 Crosstabulation							
		q9					
		1	2	3	4	5	Total
<=4	Count	14	6	5	0	0	25
	% within N° of weekly teaching hours of English per class	56,0%	24,0%	20,0%	0,0%	0,0%	100,0%
>4	Count	1	3	2	1	3	10
	% within N° of weekly teaching hours of English per class	10,0%	30,0%	20,0%	10,0%	30,0%	100,0%
Total	Count	15	9	7	1	3	35
	% within N° of weekly teaching hours of English per class	42,9%	25,7%	20,0%	2,9%	8,6%	100,0%

Table E9 CrossTab for Number of Weekly hours for q 18

N° of weekly teaching hours of English per class * q18 Crosstabulation							
		q18					
		1	2	3	4	5	Total
<=4	Count	11	1	9	2	2	25
	% within N° of weekly teaching hours of English per class	44,0%	4,0%	36,0%	8,0%	8,0%	100,0%
>4	Count	0	3	2	3	2	10
	% within N° of weekly teaching hours of English per class	0,0%	30,0%	20,0%	30,0%	20,0%	100,0%
Total	Count	11	4	11	5	4	35
	% within N° of weekly teaching hours of English per class	31,4%	11,4%	31,4%	14,3%	11,4%	100,0%

Table E10 CrossTab for Number of Weekly hours for q 19

N° of weekly teaching hours of English per class * q19 Crosstabulation							
		q19					
		1	2	3	4	5	Total
<=4	Count	10	3	5	4	3	25
	% within N° of weekly teaching hours of English per class	40,0%	12,0%	20,0%	16,0%	12,0%	100,0%
>4	Count	0	2	3	1	4	10
	% within N° of weekly teaching hours of English per class	0,0%	20,0%	30,0%	10,0%	40,0%	100,0%
Total	Count	10	5	8	5	7	35
	% within N° of weekly teaching hours of English per class	28,6%	14,3%	22,9%	14,3%	20,0%	100,0%

Table E11 CrossTab for Highest Degree for q 8

Highest Degree * q8 Crosstabulation								
			q8					
			1	2	3	4	5	Total
Highest Degree	Undergraduate degree	Count	2	8	2	5	3	20
		% within Highest Degree	10,0%	40,0%	10,0%	25,0%	15,0%	100,0%
	Postgraduate degree	Count	9	2	2	2	0	15
		% within Highest Degree	60,0%	13,3%	13,3%	13,3%	0,0%	100,0%
	Total	Count	11	10	4	7	3	35
		% within Highest Degree	31,4%	28,6%	11,4%	20,0%	8,6%	100,0%

Table E12 CrossTab for Training in Gifted Ed. During University for q 1

Did your university course include training in gifted educat * q1 Crosstabulation									
				q1					
				never	once a term	once a month	twice a month	once a week	Total
Did your university course include training in gifted educat	No	Count		7	10	6	3	4	30
		% within Did your university course include training in gifted educat		23,3%	33,3%	20,0%	10,0%	13,3%	100,0%
	Yes	Count		0	0	2	2	1	5
		% within Did your university course include training in gifted educat		0,0%	0,0%	40,0%	40,0%	20,0%	100,0%
Total		Count			10	8	5	5	35
		% within Did your university course include training in gifted educat			28,6%	22,9%	14,3%	14,3%	100,0%

Table E13 CrossTab for Training in Gifted Ed. During University for q 2

Did your university course include training in gifted educat * q2 Crosstabulation									
				q2					
				never	once a term	once a month	twice a month	once a week	Total
Did your university course include training in gifted educat	No	Count		10	7	6	5	2	30
		% within Did your university course include training in gifted educat		33,3%	23,3%	20,0%	16,7%	6,7%	100,0%
	Yes	Count		0	0	2	2	1	5
		% within Did your university course include training in gifted educat		0,0%	0,0%	40,0%	40,0%	20,0%	100,0%
Total		Count			7	8	7	3	35
		% within Did your university course include training in gifted educat			20,0%	22,9%	20,0%	8,6%	100,0%

Table E14 CrossTab for Training in Gifted Ed. During University for q 3

Did your university course include training in gifted educat * q3 Crosstabulation							
			q3				Total
			1	2	3	4	
Did your university course include training in gifted educat	No	Count	13	9	7	1	30
		% within Did your university course include training in gifted educat	43,3%	30,0%	23,3%	3,3%	100,0%
	Yes	Count	0	2	1	2	5
		% within Did your university course include training in gifted educat	0,0%	40,0%	20,0%	40,0%	100,0%
Total		Count		11	8	3	35
		% within Did your university course include training in gifted educat		31,4%	22,9%	8,6%	100,0%

Table E15 CrossTab for Training in Gifted Ed. During University for q 5

Did your university course include training in gifted educat * q5 Crosstabulation									
				q5					Total
				1	2	3	4	5	
Did your university course include training in gifted educat	No	Count		8	11	7	3	1	30
		% within Did your university course include training in gifted educat		26,7%	36,7%	23,3%	10,0%	3,3%	100,0%
	Yes	Count		0	1	1	3	0	5
		% within Did your university course include training in gifted educat		0,0%	20,0%	20,0%	60,0%	0,0%	100,0%
Total		Count		12	8	6	1		35
		% within Did your university course include training in gifted educat		34,3%	22,9%	17,1%	2,9%		100,0%

Table E16 CrossTab for Training in Gifted Ed. During University for q 6

Did your university course include training in gifted educat * q6 Crosstabulation									
			q6						
			1	2	3	4	5	Total	
Did your university course include training in gifted educat	No	Count	11	11	4	3	1	30	
		% within Did your university course include training in gifted educat	36,7%	36,7%	13,3%	10,0%	3,3%	100,0%	
	Yes	Count	0	1	3	0	1	5	
		% within Did your university course include training in gifted educat	0,0%	20,0%	60,0%	0,0%	20,0%	100,0%	
Total		Count	12		7	3	2	35	
		% within Did your university course include training in gifted educat	34,3%		20,0%	8,6%	5,7%	100,0%	

Table E17 CrossTab for Training in Gifted Ed. During University for q 7

Did your university course include training in gifted educat * q7 Crosstabulation									
			q7						
			1	2	3	4	5	Total	
Did your university course include training in gifted educat	No	Count	9	8	6	3	4	30	
		% within Did your university course include training in gifted educat	30,0%	26,7%	20,0%	10,0%	13,3%	100,0%	
	Yes	Count	0	0	1	2	2	5	
		% within Did your university course include training in gifted educat	0,0%	0,0%	20,0%	40,0%	40,0%	100,0%	
Total		Count		8	7	5	6	35	
		% within Did your university course include training in gifted educat		22,9%	20,0%	14,3%	17,1%	100,0%	

Table E18 CrossTab for Training in Gifted Ed. During University for q 8

Did your university course include training in gifted educat * q8 Crosstabulation									
			q8						
			1	2	3	4	5	Total	
Did your university course include training in gifted educat	No	Count	11	9	4	3	3	30	
		% within Did your university course include training in gifted educat	36,7%	30,0%	13,3%	10,0%	10,0%	100,0%	
	Yes	Count	0	1	0	4	0	5	
		% within Did your university course include training in gifted educat	0,0%	20,0%	0,0%	80,0%	0,0%	100,0%	
Total		Count	10		4	7	3	35	
		% within Did your university course include training in gifted educat	28,6%		11,4%	20,0%	8,6%	100,0%	

Table E19 CrossTab for Training in Gifted Ed. During University for q 9

Did your university course include training in gifted educat * q9 Crosstabulation									
			q9						
			1	2	3	4	5	Total	
Did your university course include training in gifted educat	No	Count	15	8	4	1	2	30	
		% within Did your university course include training in gifted educat	50,0%	26,7%	13,3%	3,3%	6,7%	100,0%	
	Yes	Count	0	1	3	0	1	5	
		% within Did your university course include training in gifted educat	0,0%	20,0%	60,0%	0,0%	20,0%	100,0%	
Total		Count	15	9	7	1	3	35	
		% within Did your university course include training in gifted educat	42,9%	25,7%	20,0%	2,9%	8,6%	100,0%	

Table E20 CrossTab for Training in Gifted Ed. During University for q 11

Did your university course include training in gifted educat * q11 Crosstabulation									
			q11						
			never	once a term	once a month	twice a month	once a week	Total	
Did your university course include training in gifted educat	No	Count	5	12	9	1	3	30	
		% within Did your university course include training in gifted educat	16,7%	40,0%	30,0%	3,3%	10,0%	100,0%	
	Yes	Count	0	0	1	4	0	5	
		% within Did your university course include training in gifted educat	0,0%	0,0%	20,0%	80,0%	0,0%	100,0%	
Total		Count		12	10	5	3	35	
		% within Did your university course include training in gifted educat		34,3%	28,6%	14,3%	8,6%	100,0%	

Table E21CrossTab for Training in Gifted Ed. During University for q 12

Did your university course include training in gifted educat * q12 Crosstabulation									
			q12						
			never	once a term	once a month	twice a month	once a week	Total	
Did your university course include training in gifted educat	No	Count	9	8	4	5	4	30	
		% within Did your university course include training in gifted educat	30,0%	26,7%	13,3%	16,7%	13,3%	100,0%	
	Yes	Count	0	0	1	3	1	5	
		% within Did your university course include training in gifted educat	0,0%	0,0%	20,0%	60,0%	20,0%	100,0%	
Total		Count	9	8	5	8	5	35	
		% within Did your university course include training in gifted educat	25,7%	22,9%	14,3%	22,9%	14,3%	100,0%	

Table E22 CrossTab for Training in Gifted Ed. During University for q 14

Did your university course include training in gifted educat * q14 Crosstabulation									
			q14						
			never	once a term	once a month	twice a month	once a week	Total	
Did your university course include training in gifted educat	No	Count	9	9	5	5	2	30	
		% within Did your university course include training in gifted educat	30,0%	30,0%	16,7%	16,7%	6,7%	100,0%	
	Yes	Count	0	0	3	2	0	5	
		% within Did your university course include training in gifted educat	0,0%	0,0%	60,0%	40,0%	0,0%	100,0%	
Total		Count	9	9	8	7	2	35	
		% within Did your university course include training in gifted educat	25,7%	25,7%	22,9%	20,0%	5,7%	100,0%	

Table E23 CrossTab for Training in Gifted Ed. During University for q 16

Did your university course include training in gifted educat * q16 Crosstabulation									
			q16						
			never	once a term	once a month	twice a month	once a week	Total	
Did your university course include training in gifted educat	No	Count	13	9	2	5	1	30	
		% within Did your university course include training in gifted educat	43,3%	30,0%	6,7%	16,7%	3,3%	100,0%	
	Yes	Count	1	0	2	1	1	5	
		% within Did your university course include training in gifted educat	20,0%	0,0%	40,0%	20,0%	20,0%	100,0%	
Total		Count	14	9	4	6	2	35	
		% within Did your university course include training in gifted educat	40,0%	25,7%	11,4%	17,1%	5,7%	100,0%	

Table E24 CrossTab for Training in Gifted Ed. During University for q 17

Did your university course include training in gifted educat * q17 Crosstabulation									
				q17					
				never	once a term	once a month	twice a month	once a week	Total
Did your university course include training in gifted educat	No	Count		19	3	3	2	3	30
		% within Did your university course include training in gifted educat		63,3%	10,0%	10,0%	6,7%	10,0%	100,0%
	Yes	Count		0	1	0	4	0	5
		% within Did your university course include training in gifted educat		0,0%	20,0%	0,0%	80,0%	0,0%	100,0%
Total		Count		19	4	3	6	3	35
		% within Did your university course include training in gifted educat		54,3%	11,4%	8,6%	17,1%	8,6%	100,0%

Table E25 CrossTab for Training in Gifted Ed. During University for q 18

Did your university course include training in gifted educat * q18 Crosstabulation									
			q18						
			never	once a term	once a month	twice a month	once a week	Total	
Did your university course include training in gifted educat	No	Count	11	4	10	1	4	30	
		% within Did your university course include training in gifted educat	36,7%	13,3%	33,3%	3,3%	13,3%	100,0%	
	Yes	Count	0	0	1	4	0	5	
		% within Did your university course include training in gifted educat	0,0%	0,0%	20,0%	80,0%	0,0%	100,0%	
Total		Count	11	4	11	5	4	35	
		% within Did your university course include training in gifted educat	31,4%	11,4%	31,4%	14,3%	11,4%	100,0%	

Table E26 CrossTab for Training in Gifted Ed. During University for q 20

Did your university course include training in gifted educat * q20 Crosstabulation								
			q20					
			never	once a term	once a month	twice a month	Total	
Did your university course include training in gifted educat	No	Count	28	1	1	0	30	
		% within Did your university course include training in gifted educat	93,3%	3,3%	3,3%	0,0%	100,0%	
	Yes	Count	1	2	1	1	5	
		% within Did your university course include training in gifted educat	20,0%	40,0%	20,0%	20,0%	100,0%	
Total		Count	29	3	2	1	35	
		% within Did your university course include training in gifted educat	82,9%	8,6%	5,7%	2,9%	100,0%	

APPENDIX F

Transcripts of interviews carried out to secondary school language teachers

TEACHER A (also mother of a gifted student)

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analysed as a whole with the rest of the interviews I perform.

Interviewer: So E you are a teacher and you are the mother of somebody who is very, very bright and his name is F. How old is F?

E: F is 12 years

Interviewer: Where are you from?

E: Well we are from Germany.

Interviewer: You're also a teacher and you're also the coordinator of the English department - where did you do your training?

E: I did my teacher qualifications in Stuttgart which is in South Germany.

Interviewer: How many years of teaching experience do you have?

E: Well I had two years of teacher training plus 15 years of teaching experience

Interviewer: And what subjects and grades are you currently teaching?

E: I teach German and English to all grades from 5th to 12th.

Interviewer: Did you ever learn about gifted learners when you were doing your course?

E: Yes, I did I have a course on how to challenge kids and also how to push the weaker ones but it was not very detailed. That was just like the first impression more or less.

Then we start digging deeper when we realize that our son is bright and everyone said well send him to school earlier and we didn't want to and my husband at his school, he was one of the teachers in charge for providing programs for gifted, less gifted kids.

Interviewer: Right. Besides your son, besides F how many other people (students) have you had contact with that you feel are gifted?

E: Well this depends on the definition of gifted so if you mean by gifted having a talent for a certain area then many because we have especially here in Lisbon we have many kids that are talented at languages for example. If you mean gifted as overall gifted in general, then I'd say I have one or two people per class maybe.

Interviewer: In your opinion, what is a gifted and talented student?

E: Gifted and talented means that they understand much quicker than others, very often they already know from home because they have read things or listened or watched more than the others and they just yes they cross very quickly what you're trying to teach. Sometimes they give you the right answer that you wanted to have at the end of the lessons and then you have to see what you do with that.

Interviewer: Can you tell us how you started perceiving, from F, that he was extremely bright?

E: Well it started maybe in kindergarten when he was four or five, when I realized that he can work very quickly with Lego for example... that his visual learning was excellent - better than mine, that he knew how to construct blocks with his bricks that actually were difficult and I needed the leaflets you know. When he was five he got very interested in reading. He wanted to know the letters so he started reading when we were outside and he read on the car, "Polizei or Stop" signs. He learned the alphabet very quickly, so actually he could read before he went to school. And then the teachers asked us if we don't want him to skip a year but I never wanted that because he is young, he was not very tall, he was not very strong and I thought it wasn't a good idea.

Interviewer: From the mother's point of view, do you think that he presents any kind of social challenges in the classroom? How do you think his classmates see him?

E: That's a good, very good question I think. On one hand they elected him or they voted him as a class speaker but on the other hand they have a certain respect because as he of course always tells them "I never study and I get my "ones". One is the best grade in the German system so they are also a little bit envious because they have to learn a lot and he gets best marks without having looked at the book at home so I think it's a difficult position for him. It's this respect and amazement on the side of his fellow students but also envy and the feeling that maybe they are worth less.

Interviewer: How are his friendships? Are there any problems in terms of friendships?

E: He is very selective and has few friends and those that he has are really good friends, like they always hang out together. Even back in Germany, he had a handful of really good friends and he wasn't even interested in the others for whatever reason.

Interviewer: What about his emotional maturity? How do you find his maturity level compared to children of his age?

E: You should have asked this question a year ago because then my answer would have been different.

Interviewer: Please explain.

E: So I'd say he's much more mature because he also reads a lot and I think a lot of his knowledge about people, his emotional intelligence comes out from a lot of reading because many characters know how people react and very often that's why I think he is a good class speaker because he can mediate between conflict situations because he can simply understand the problem and can see both sides to be able to say "please remember to do so and so". But now since puberty hit hard and very suddenly, I sometimes don't know. Sometimes I get the feeling of "what happened to my son? He is not rational anymore". He gets angry so quickly and he is very emotional but yes I think it's normal for his age group but I know it's a little early for the age of 12 because I ask moms of his fellow friends, "Do you also have the same problem at home?" And they say "no, not yet" and he has also started getting pimples.

E: So yes I think he is a little fast, although he is the youngest in the class.

Interviewer: So his peers have not reached puberty yet?

E: Some certainly have but some I think not to the extent that he has, like wanting to be alone and always protesting against his parents, having a certain physical appearance...

Interviewer: And in terms of autonomy, in terms of independence how do you feel?

E: Well as a mother I must say that he is autonomous in a way that I have never had to check whether he does his homework, he does that. He always takes his things in the morning - he knows when to pack his sports bag and so schoolwise he's doing really well but at home...chaos. His room is a mess. Each time I tell him what to do he is not interested and also he doesn't want more input from me now you know because I try to challenge him. I try to give him books that are more demanding. We buy certain things for him to construct, like building batteries yourself and he does it but he isn't enthusiastic. Yes, I would say he is very autonomous.

Interviewer: Are there any behavioural challenges that come from that stem from him being brighter than other students?

E: Yes, he tends to be arrogant towards others. It depends a little bit on how the teachers, how their relationship is to him from some teachers who he are very willing to help but in other subjects he doesn't want to. He rejects it "Oh again" or "I don't want to" because I think more and more he has the feeling that he is used as a help, as a teacher's aid and he doesn't want to anymore. At the beginning it was interesting, he liked it when he was younger but now he doesn't feel like doing that anymore.

Interviewer: How does he react to criticism? I know it's very different as a mother and as a teacher so how does he react?

E: Not very well. No, he hates criticism and I have to phrase it very diplomatically and usually by putting my arms around his shoulders or like showing him that I'm mommy and I care and I love him but also that there are things he should improve that I want him to improve or put away his mobile phone and stuff like that so he hates criticism. I can't handle it very well.

Interviewer: What happens in class when he is criticised?

E: Yes, I think most of the time he just probably shrugs his shoulders since things are so...you know. Because the trouble is for example his handwriting is a mess. I have told him very often and the German teacher always writes a little comment and I can't ??? but he doesn't care much. He knows that what he is writing I correct, so he doesn't see why he should improve his writing.

Interviewer: Do you remember anything else in terms of either problem solving, his creative ability, or in the way he absorbs vocabulary that you thought was different? Do you recall anything like that?

E: Oh yes there are some things for example, instructions. He's amazing each time we get a new game, we play a lot, not computer games but table games and each time we got one he reads instructions and he understands them perfectly from the first read and I sometimes take time to start and "what? tell me again" and he is like "yes but momma let's start I know" and he's just very fast and also when he was three or four maybe his uncle bought him origami paper and ideas of how to make origami figures and he had no problem simply looking at the drawing and doing it himself.

Language is a little different. I mean he learns very fast, I must say and the trouble is that now he is getting faster and faster and he has never learned how to learn because he didn't need to. He just sits down and reads through his text and he remembers but it's very difficult for him to learn isolated words. So he learns very well when he reads dialogues or as a full text. He remembers that but single words that he doesn't connect with which is more difficult. For example, in Portuguese. You know Portuguese verbs are a catastrophe, very difficult for me. There are so many tenses but he has no problem at all - he just looks at them, remembers some sentences with the keywords and he just knows.

Interviewer: And at this moment he speaks German as his first language and mother tongue, Portuguese, French and English and I already had some information about his levels but in your perception where is he in terms of German? Is he C2?

E: Well, it corresponds to his age. Yes, I would say so. He reads everything - he reads the newspaper, he watches the news with us, he understands basically everything and his vocabulary is immense.

Interviewer: And English, Portuguese and French?

E: Well, French is the weakest because he only just started and Portuguese he is probably better at it than English because he has spent four years here and he has Portuguese friends. He picks it up on the street and in the football club so I think his Portuguese is probably better than his English.

Interviewer: I was also told that there was some sort of suggestion that he would be put in a class of Portuguese for native speakers which is P.A.M.

E: Yes, the teacher suggested that but he doesn't want to because in that class he has all his friends.

Interviewer: And this was suggested for this year?

E: Last year. But it would be a good possibility because then he could learn faster and he wouldn't feel like "this is so easy for me" but he doesn't want to.

Interviewer: That's an important aspect, I guess. We are trying to adjust aspects and friendships play an important role, right?.

E: Yes, that's what I'm saying. The earlier you start, the higher their chances are of being successful with him.

Interviewer: What do you want as a mother, from the teachers? What do you think he needs and what do you think he is lacking?

E: I think what he is lacking is, you know I've talked with a lot of colleagues and what usually happens is you get an extra sheet where you think "I'm done and now I get an extra sheet???" What some colleagues succeed in doing is to give him a challenge that is not an exercise, you know what I mean? Like for example constructing something in math or doing a logical like a puzzle. So something that doesn't have the touch of schoolwork, I think that would help. What I do for some for English, I give him books for easy readers but books like (what has he read lately) *In 80 days around the world*. If it's just schoolwork, then he feels unenthusiastic.

Interviewer: Would you say that in general he's not being pushed enough in classes?

E: He's got only ones in everything.

Interviewer: What is also interesting is since the beginning we haven't used the word gifted for F.

E: The thing is, this word gifted...I'm not sure if he is really gifted, I mean I don't want to sound arrogant about it. I just know he is very clever and very fast but when does gifted start you know?

Interviewer: When does bright end and gifted start right?

E: Yes, so that's why I always say he is very intelligent and bright because the word gifted to me has, to me personally, implies that that he is interested and he wants to learn more and he wants to get the Nobel prize at the age of 18 you know?

Interviewer: I see.

E: Maybe that's just my personal connotation of the word but...yes. And I never had a test, I don't want to test him.

Interviewer: You don't want to test him?

E: No, because I have a couple of students who did this test and I felt it didn't do them any good.

Interviewer: In which way?

E: Because they always relied on that like "Oh well so I didn't do very well in my essay but never mind I'm very gifted...my IQ is so high" or sometimes they lose their feeling of happiness when they have a good mark because "Of course I get a good mark I'm a gifted student" and I think it's a little bit of shame to take that away from them. And for children I think this is an important aspect. They want to be rewarded. they want to say "yay well done!", "you have worked hard!", "good!" but they don't want to hear "of course".

Interviewer: Also earlier you mentioned he needs to feel challenged. How do you feel that he needs to be challenged? Can you tell me a little bit about this?

E: Yes, I think it definitely needs a challenge because otherwise he wouldn't get any further, he wouldn't become...he wouldn't improve, he wouldn't find where his real interests are because he is good at everything. The problem is that he doesn't want to

show that in school, he doesn't want his peer group to know he's doing something additional because it's not as cool, it's a society problem so I think if I find something outside of school that is interesting...physics, biology something like that he likes that...computer technology which I don't want but he would love it.

Interviewer: Is that one of his passions?

E: Oh yes, he loves it. He would take that but we don't have that at school and that's a problem because it also means more work for me, it means finding something, a course, a company that offers some work with kids, I don't know.

Interviewer: And you think that this is more readily available in Germany than in Portugal?

E: Definitely.

Interviewer: So how is this topic developed? I was thinking about this as you were talking about what the term means to you, what the term connotes. So what is the word for gifted in Germany?

E: "Begabt".

Interviewer: How is the word seen? Are there any kind of associations to it?

E: It implies respect, it implies that he is a better person also maybe. And I mean you have that word gift in it and it a present, it's something that you don't have to work for and it's the same in German and a begabt is something that someone has given to you so it's implicit in yourself. It is nothing that you get from outside.

Interviewer: I think we spoke about how you feel that Germany would help to provide for the challenges. And I guess you're saying that in Germany, there are many of these possibilities right?

E: Yes. They are for free and after a certain age you can go if your teacher recommends you but after a certain age you have to pass a sort of a test which is not an IQ test, it's just to give you certain challenges and you have to show how you could solve them because it is getting more and more demanding. They work together with universities, with big companies so it's really... also a first foot into a career really and that starts (year eight).

Especially in the sciences and engineering field as engineers and scientists. They have put a lot of work to develop those sort of courses.

Interviewer: That sounds very interesting. Is there anything you want to add? If you were given the opportunity to carry out any professional development, I'm sure you would take advantage of it. Is there anything you want to add or any questions that you'd like to have answered? Within the next year or two years or whatever?

E: As a teacher?

Interviewer: As a teacher and mom I think, yes.

E: I think we always talk about differentiating classes, giving students different tasks and it's really difficult because it means you have to prepare like three lessons while you have only one and it would be a lot of help if there was material for certain topics and for certain age groups but this material should not look as if it was from a schoolbook you know? It has to feel different, maybe like being plastified somehow. It has to have a special touch I think.

Interviewer: Are you talking about having things which are ready for the teacher to use if she or he feels the need?

E: Yes, exactly. For example, thinking of D, I had a lesson once that D later said "I loved the lesson today." I just took newspapers, lots of newspapers, stacks of newspapers to the classroom and I told them to find articles on a certain topic. Some of them were done very fast, they found one and they summarized it, wrote the most important words. D kept reading for two hours. He just sat there, he never came up with an example but I'm sure he chewed up all of those news. Because he had the time and he was interested.

Interviewer: Now I have a question about D. So D is V's brother?

E: Yes.

Interviewer: Ok and D is also a year ahead.

E: Yes, he is only 16 and the others are 17 and 18.

Interviewer: D is an all-rounder?

E: Yes. But a lazy one. The thing his parents explained, that's my fear with F that at some point they lost him you know? That he didn't want to go further, that he was happy being gifted and that it was so easy for him to learn and understand but he didn't want to do any extra. He stopped doing homework, he was cheeky in class because he knew nevertheless the exams results were going to go well and he's happy with being good in the exam. He doesn't even want to be very good. Which is a pity.

Interviewer: So do you think that that's because...

E: He is not ambitious.

Interviewer: Why do you think that is the case? Why do you think he is not ambitious? Why do you think he is not that motivated?

E: That's a very good question. I think because sometimes the topics are boring for him. For example, now globalization. He knows so much about the world and about the economy, he is involved in a group that are selling T-shirts, they call it school clubs so he knows so much already. Maybe he would like to have time for other things to learn about, bionics or something but now the curriculum is as it is and he has to learn about globalization, just an example, or physics or geography. He won a competition, he was the best student in the whole of Germany plus the German schools (they count as German) in the field of geography in his age group last year or two years ago. There was this competition and he won, he came first.

Interviewer: It took place in Germany?

E: Yes.

Interviewer: And is this one of his passions? Geography?

E: Yes.

Interviewer: But he is as interested as he was two years ago?

E: Yes, yes. And he knows all the capitals, he knew things about the French war in Vietnam and can compare it to the ones that the Americans had.

Interviewer: Again D and V are brother and sister?

E: Yes, but V is also a girl and I think that's also the difference between boys and girls because V is trying to bring what she knows, what she can offer into the group whereas D doesn't necessarily do that. He says "Oh I know all of this, let them learn, let them do their work" and V, she wants to help, she wants to improve the group she's working with so maybe there's also a difference between boys and girls because of their social skills.

Interviewer: How do you think that there is influence from the parents because they are brother and sister?

E: I have no idea.

Interviewer: And E, I know that they are Malaysian, the mother is Malaysian, the father is German, I know that their mother tongue is Malaysian, they are bilingual in fact.

E: I'm not sure if they speak Malay.

Interviewer: I wasn't sure either I know that Vanessa speaks to her grandmother in Malay. In fact, if they have notions of the Malaysian language it would be quite interesting to somehow bring that into our topics, into the classes because it's quite interesting and quite rich.

E: The problem is in schools they often find that the curriculum is so strict and I don't know about Portugal but in England and Germany the curriculum are the topics that you have to do. They are so strict; there are so many that very often you don't have the time for extras.

Interviewer: Do you find that these students would actually benefit from not touching the curriculum at all like the aspects they could just kind of skip?

E: Yes. Definitely. There are schools that focus on gifted kids and they offer special courses or I know about the project I think it's a German school in Malaga (Spain) who allow bright kids in certain subjects to come out of the classroom and to work on the project and there is a teacher especially for those kids. So you might have a group of five children and they work on the field of sciences, for example.

Interviewer: I'm going to wrap this up now, thank you for your collaboration. This has been a very interesting conversation and it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request. As soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

Teacher B

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analyzed as a whole with the rest of the interviews I perform.

Interviewer: May ask you how old you are?

T: I'm 37.

Interviewer: Where you from?

T: I was born in England, London.

Interviewer: What about your training?

T: I did my degree here in Portugal and then PGCE here as well which took a year of theory and then a year of practice in a school in Lisbon.

Interviewer: How many years of teaching experience do you have?

T: This is my thirteenth year.

Interviewer: And what subjects and grades are you teaching?

T: At the moment I teach English in the national syllabus and grades 10 and 11 and I teach the IB in grade 12 English B.

Interviewer: Have you ever done any training in gifted education?

T: No, really in the course we didn't have anything specific. It was mentioned just as students with learning disabilities. I think they focus more on students with learning difficulties than they do on gifted students. Here through my experience we also haven't received anything specific - we just have to resort to our own opinions and our measures to try and stimulate the students and to keep them interested so that they don't get bored

and keep them motivated.

Interviewer: In your opinion, how many gifted people have you had contact with?

T: That's a difficult question because gifted is a relative term I guess. In terms of family and friends I don't know, not many, something in the units not even in the tens. With students I'd say we've had quite a few. Perhaps every year in my classes I've come in contact with three or four perhaps so a bit difficult to answer.

Interviewer: I understand this is difficult. How would you define a student that's gifted and talented?

T: I think a natural ability to just basically reach the objectives a lot faster than other students. They pick up on things very quickly and are able to reproduce or apply these in different situations. Sometimes these students stay behind, ask questions that often surprise us and make us think. They just go beyond what is expected, I think, and have this natural curiosity.

Interviewer: We know there's somebody in your class who has been tested as gifted and we know that she has been accelerated. She skipped a year. Was it in this school?

T: Yes, it was in this school.

Interviewer: When did you learn about her being gifted?

T: While I'm not her teacher this year but as department coordinator we knew when she came in to grade 5 that she was younger than the other students and the reason why was because she was excelling and she was going much faster than her other colleagues. Her parents asked if it were possible for her to skip a grade due to her ability and the school said yes so we heard about it in grade five. She's been doing very well - there were some issues at the beginning as regards to her maturity and there was some concern about her not being accepted into her class because she was younger but over time...she has a strong personality, she's not shy at all she's stood her ground, she's made her presence known and she is respected and I think she's...You can't tell the difference now you know? In terms of age and in terms of maturity.

Interviewer: So in terms of her characteristics - I'm more interested in terms of language learning right now, so what might they be?

T: Her characteristics in terms of language learning? Well she certainly has a natural curiosity for the languages. I'm sure she reads broadly and TV series, films and all that seems to have a great influence on her. You can tell by the idioms she uses, her intonation, even the cultural connections that she makes. There's definitely an influence there which is something that she does in her own time so it's a natural interest for her. The language is something she enjoys.

Interviewer: Now generally speaking, what challenges do gifted and talented students present to you in your classroom setting? The first aspect that I'd like to ask about are their social challenges. Do they bring any social challenges to class?

T: In this student's case no. Like I said she's completely part of the group, she's got a lot of friends there, there's no real social challenge because she has such a strong personality. She is welcome by everyone. There have been cases where gifted students sometimes have some social aspects where they don't...they have some difficulties socializing with others. That's usually because they have some other condition associated...Asperger's, some kind of autism or something that besides being gifted, there's another issue. So it depends on the student sometimes we have... as a teacher we try and group them with people they are more comfortable with so that they are not exposed, so that they don't have the added pressure of having to relate to someone that they are not comfortable with. Sometimes we take that into consideration but in this student's case that's not an issue.

Interviewer: In terms of emotional maturity as well, you mentioned before that she's pretty much in the same kind of level as her chronologically aged peers right?

T: She is now...in the beginning that was a concern but now she is in grade 10 and I think she is fine.

Interviewer: What about her level of autonomy?

T: She's fine. This student in particular... no problem whatsoever in fact she's one of the first to catch on to what's necessary and she goes with it and sometimes she adds

something to it. She goes beyond what is requested.

Interviewer: Whenever she intervenes with something such as a question, a thought, a comment in class how do her peers react?

T: They all get on very well in this class. They are very sweet so I would say that the majority reacts with interest. There's a natural curiosity in that part as well that's why it's good to have someone like this in the class to also stimulate the colleagues and bring them up and pull them up as well. You would think that there may be cases of "oh there she goes again" or "she is showing off" but I don't feel that in this particular class.

Interviewer: Has there ever been a situation where somebody reacted negatively?

T: Not really. I mean there is some competition that is healthy competition I would say. I have a group of students who are quite strong in that class in English and I may try to you know, when someone answers something and the other one has to add something just to show that they know as well - that healthy kind of competition.

Interviewer: Do you recall a moment where the student that we are speaking about has failed at something? How did she respond to her failure?

T: In English that hasn't really been the case. There have been compositions or homework or essays or something where she may have felt she could have done better, when she sees a silly mistake but it's still very positive. She doesn't beat herself up about it at all I think it's just "oh silly me" or "okay next time I'll do better".

Interviewer: In terms of the common European framework, what kind of levels would you say you have in the class?

T: We have quite a mixed ability group. We have various students who joined the school this year, some whose first language is not Portuguese or English and where English would be their third language so in those cases I would say we have students who are borderline A2/B1 but then we have students who are the more gifted ones. The ones who are stronger range from B2 to C1. The majority of students, besides these students who joined us this year, have done the first certificate in English and are preparing for the C1 - so that's quite a large range in there.

Interviewer: So all the students are getting ready for C?

T: No, not all of them. The level that is taught in the class is B2+ so why? Because the majority of our students, when they go into grade 10 they already have the B2. We don't want to push too much because we receive lots of students from outside the school that don't have the B2. Those who want to do the CAE, the C1s, have extra classes at the end of the day, exam preparation and these classes are specifically designed to prepare for the CAE exam so they do practice exams, they do listening for the CAE, etc. So that's an extra class.

Interviewer: How do you find the interaction with the parents? How is your interaction with the parents of the student we're speaking about?

T: It's fairly open and then these parents in particular they're not very... they aren't constantly contacting the school, they let us do our job basically but it's always positive. Whenever there is a question, it's very constructive and they are working together with the schools so it is very positive.

Interviewer: Imagine that this student hadn't been accelerated, imagine that she hadn't skipped a grade?

T: How would she feel? Bored. Essentially bored, it's the first word that comes into my mind because she would just be well I'm sure they would try to work with, just as we do with other gifted student who aren't accelerated we try and give them extra material, extra assignments something a little bit different, get them more involved in the class itself just to keep them interested and in this student's case we would have to do something like that to stop her from being bored.

Interviewer: What are the kind of different activities that you've had to carry out specifically for her?

T: Well just to get her to shine a bit more in class, get her more active where for example today's activity she was one of the spokespersons for the group so if I hadn't asked her to do that I would run the risk of her switching off or not switching off but feeling "okay this is easy peanuts" and she needs to be presented with more challenges so I try and give her roles in the class where she has to either explain something to the rest of the class or

do what she did today and actually be her representing her group, something that will stimulate her.

Interviewer: Does she ever have to do worksheets that are slightly different from her colleagues?

T: I haven't asked her to do that because well, I don't want to overload her with work as well because I know that it's the 10th grade. She's a Sciences student and they were complaining today that they have a workload so I don't want to give them extra things to do in class. In terms of language, she does other things in English. She goes out, she practices, she thinks she surfs the internet, she's curious in that way already so I don't really have to stimulate that because she does it herself.

Interviewer: Do you feel like you have all the materials and didactic resources to respond to these students? If not, what would you like to have available?

T: Well we have materials for higher levels so it's a question of just researching and finding something that is related to the theme that we are doing but at a slightly higher level in terms of language that's okay. In term of resources, you know material resources I think that's where we are okay but in terms of guidance and tips like what to do, suggestions, ideas of what we can do with these students I think that's what is lacking.

Interviewer: Is there a moment where you actually discuss these aspects? Is there a moment where all these ideas are shared/discussed?

T: Well we have class meetings where we discuss all the students in general and what strategies we should implement with students with learning disabilities or students who are more advanced, more talented but that's very general. It's nothing very specific and it's in a flash you know? Okay "with gifted students we should do this". We have many more meetings and many more discussions and guides for students with learning disabilities.

Interviewer: Is there anything you would like to add about this topic? Are there any questions that you would like to have answers to?

T: Well, I would like to know how other people do this you know what... again what suggestions and what tips, are we doing the right thing? Should we be pushing them and

putting them out there and using them as an example?

Interviewer: Maybe demystify some myths?

Interviewer: Thank you very much for your time and collaboration. This has been an interesting conversation and will certainly contribute to my research. I will copy the interview onto paper support and I have one last request . As soon as I have done it, I will ask you to read the transcript in order to validate the contents. Once again, thank you for your time.

Teacher C

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analysed as a whole with the rest of the interviews I perform.

Interviewer: May ask you how old you are?

E: I'm 29.

Interviewer: Where are you from?

E: From Germany.

Interviewer: And where is your basic training from?

E: From Germany and the university of Leipzig.

Interviewer: And how many years of teaching experience do you?

E: Just for now its two years but including my training.

Interviewer: And what subjects and grades are you currently teaching.

E: I'm teaching grade 6 to 12 in French and music.

Interviewer: Do you have any training in gifted education?

E: No.

Interviewer: How many gifted people have you had contact with in terms of family or friends?

E: Not a lot actually, I don't know. No, no one special.

Interviewer: Nobody in your family nor friends? Students?

E: No.

Interviewer: What is your opinion regarding gifted and talented students? What are your impressions? How would you define a gifted and talented student?

E: I would say that they work very fast because they understand very easily. It's easy for them to make the relations between the subjects because their brain works really fast.

Interviewer: Let's focus on V now. When did you learn about her being gifted?

E: Actually somebody told me at the beginning because she started French in Grade 7 and at the beginning French for everybody is easy because they already know how to learn languages here at this school but after a while it gets more divided and I saw that V understood very fast and I don't have to explain again. She is not bored but she just is very attentive even if I explain multiple times for the others and she always finishes her exercises first.

Interviewer: In terms of social challenges how do their classmates see them or her?

E: It's funny to see because sometimes I'm saying that because some students who are very slow because they are talking to their neighbor and there are some students that already finished and then it goes like "Ah V, V you already finished..." but it's not mean it's...they are kind and V, she knows how to deal with this because she doesn't care about this and she's also helping them if the others ask for things they don't know...so I think the relationship is good.

Interviewer: So basically V is quite good with this because she doesn't really care much and also she helps them, so are you saying that maybe once she finishes her activities she voluntarily turns around to her neighbor and might help?

E: She doesn't intervene, she answers but only when questioned.

Interviewer: What about her emotional maturity?

E: She fits well. She fits more with the boys than the girls in the class but she is like that.

Interviewer: And her level of autonomy? How independent is she with her activities?

E: She is very independent, she continues activities by herself and she is just very independent.

Interviewer: Are there any behavioral challenges?

E: No, she is very correct and a nice student.

Interviewer: Thinking back when somebody criticized her for a thought or some sort of behavior and if you can think back to that time how did she react in that situation?

E: I think that never happened in my class because they know V is a little special thing, she understands very fast and everything and I think that there are students that will not criticize her because they know that V is higher than themselves but that never happened.

Interviewer: Have you ever seen V in a situation where she feels like she failed at something?

E: I think I cannot call it failure but even when she finishes her exercises and I go there to check it there are mistakes, little mistakes but I think from V there are mistakes and then she's like "ah of course that's like that" and she sees there is a mistake and its ok but it's not a failure. She is very kind and fast and she is correcting everything and its done for her.

Interviewer: So in terms of motivation how is her motivation different to the average student in your class?

E: Sometimes I'm not sure because sometimes I give her extra work because she has the time to do it but sometimes I don't because I don't have any extra work and I must think is this boring for V? Is her motivation going down because she's not challenged? But I think she's very motivated because she is interested in everything and she asks questions if she doesn't know anything and yes she is motivated.

Interviewer: You said that you often give her work which is slightly different from other people's work. in what way is this work different?

E: It's an extra. Sometimes everybody is doing the exercise and you can do the next one or another which I won't do with the other students. Sometimes I have grammar sheets for her just to review some things or an extra that I will not give to the other because it's more challenging.

Interviewer: Going back to the cognitive abilities, can you think of anything in terms of problem solving or creativity that you might want her to comment on?

E: When they are doing some dialogue or when they have to think about something to be creative I think she is not the student who has the ideas on how to do it and how to present it. She is doing what others proposed to do in these kind of exercises.

Interviewer: And are there any particular areas of interest that I feel that she has within your subject?

E: In French it's not like a free talk... its very fixed but I think the grammar is the thing she loves to do because it has rules and she is learning the rules and the other things like texts but I think it's not very interesting for her because the textbooks are just...I don't know.

Interviewer: Do you have contact with her parents?

E: No. I never met them. I know her brother, I also teach him French.

Interviewer: Does that mean when you have parents-teachers meeting that they haven't come?

E: No, I'm in contact with the class teacher and of course the class teacher knows the parents and sometimes he comes to me and tells me, "Okay V is bored and she needs more challenges" and he tells me what the parents told me. For example, now I gave her some stuff because her parents wanted her to do some more because if she goes back to Germany, they are on a higher level in French because here it's the fourth language and in Germany is the third and so that's why she needs more now to be at the same level.

Interviewer: In terms of the Common European framework what are the ranges that you have in your class, in V's class, what ranges do you find in French?

E: I think we are still at the beginning between A1 and A2.

Interviewer: So you have something like 19 students?

E: 20 students.

Interviewer: If A1 was divided into three, A1.0, A1.1, A1.2 and A2.0 Where do you think the average student is?

E: A1.2.

Interviewer: And where is V?

E: She is in A2.0.

Interviewer: We also know she has been accelerated so she is actually one year younger than everybody else. How do you think she would be if she were in a class lower than she is now? Because now she is in grade.....?

E: In grade 8. Maybe she would feel more bored, maybe she would start doing other stuff in the lessons just to do something and I also think from the mentality she is not in grade 7 at the moment.

Interviewer: What do you think would help these children reach targets better, or work harder or work better?

E: Like V? I think she needs higher targets even if the teacher has agreed to give her more stuff. She needs next to the school a kind of other class with other gifted students; maybe it would be more challenging for her and maybe she can get higher.

Interviewer: So in class do you often have to do group work?

E: In French, sometimes. It's not very often but yes sometimes.

Interviewer: So generally its teacher/classroom, so it's whole group teaching?

E: Yes.

Interviewer: Do you do anything differently with them and if so what? Are the activities you have for these students things that you prepare or is it something that the book itself has?

E: Sometimes it is in the book but I also sometimes bring something that it's not on the book because I already know when I'm planning my lessons that V will finish 10 minutes before the others and she has to do something. I talked with the class teacher because I gave her some books to read and to learn the vocabulary and for her now she is allowed to read the book if she has finished, and it's a French book of course.

Interviewer: Do you feel that you have all the materials and didactic resources to

respond to these students? If not what would you like to have available at school?

E: Maybe it will be easy for me if there is just a book with extra exercises that you have to write little texts in this subject which would be easier because there are students and some good students who could use it and if they finish their exercises you can give them their book and they can just do it. It's close to the subject we are doing because when we are doing the exercises maybe it's not within the context.

Interviewer: Do you often have an opportunity to talk to other colleagues or teachers about your concerns, needs and projects for V?

E: I'm just very close to the class teacher because he is teaching English and so we have languages together and sometimes you talk about how to do this and it's more like that.

Interviewer: Would you like to have more professional development opportunities in the gifted and talented area?

E: It would always be good. But honestly there is so many stuff and then I think here at the school it's not the most important thing, of course for the students it would be good maybe but the teachers know better how to deal with these students even if they don't have experience but in the school there are so many things with the German and subjects and for me it's already enough.

Interviewer: Do you find that there is a lot of children at the lower end as well in terms of their needs, so children with either behavioral challenges or learning difficulties such as dyslexia? Do you have students like that in your class?

E: In the class with V? Yes.

Interviewer: What are the difficulties and how it is worked on in class?

E: In this class, for social things it may be good for the students but the range is very wide because there are students who don't do the final exam here at this school that just go to the class 10 and then they can decide if they can do the next one. The goal for everybody here is the diploma after the twelve years but some students they are on a lower level and here they are in V's class in grade 8 and there are five students at the moment and they get other class tests because the level is not so high for them.

E: For the students there are some that cannot deal with languages, it's hard for them because they can't memorize but this class is special because my other class isn't like this.

Interviewer: Is there anything you would like to add? Are there any questions that you would like to have answered about gifted and talented students?

E: For the moment I don't know. It's still new to me now but it's interesting and you have to deal with it in different ways. Regarding V I think that if she is bored she wouldn't say it on her own, you can see this because maybe she is telling that to her parents and they talk with the class teacher but I think she would never come to me and say it is boring after she finished everything.

Interviewer: Thank you very much for your time and collaboration. This has been in interesting conversation and will certainly contribute to my research. I will copy the interview onto paper support and I have one last request search. As soon as I have it done I will ask you to read the transcript in order to validate the content. Once again thank you for your time.

E: It was a pleasure.

TEACHER D (also mother of a gifted student)

In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

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Interviewer: May I ask how old you are?

G: I'm 48 years old.

Interviewer: Where are you from?

G: From Germany.

Interviewer: Where did you carry out your teaching qualifications?

G: Its part of our preparation in Germany to do a course of two years, we had two years and now it's just one tough year. You have his special semester between theory and practice - the first experience in the field, one day you go to a special school of teachers for the theory part and then you go to another school for the practical part. But yes, more or less two years.

Interviewer: How many years of teaching experience do you have?

G: A lot, 18 years I worked as a professor and 2 years of apprenticeship.

Interviewer: And what subjects and grades are you currently teaching?

G: German and Religious education.

Interviewer: Here every teacher teaches two subjects?

G: Yes, all of them teach at least two subjects.

Interviewer: Did you ever do any training in gifted education either in university or afterwards?

G: Not really training - I got some information and I was working in a special area in Germany where I had to watch children with deficiency, with a lot of problems and find some activities, some extra programmes for gifted students but I didn't learn it but it was part of my work in Germany.

Interviewer: One of your roles when you were working as a teacher was to carry out activities for special needs students?

G: Like coordination of special education needs and mostly we tried to get like competitions for these students on a national level.

Interviewer: How many gifted people have you had contact with? It can be students, people you have met and family members included.

G: In Germany, I would say five or six students in the last 10 years and in Portugal, at this school seven or eight gifted students in the last 4 years.

Interviewer: Possibly F as well?

G: Yes, as well. We have very intelligent students but not really with a high intellect but only few are really gifted. There's a difference.

Interviewer: How would you define a gifted and talented student?

G: In my personal opinion, it's a student that learns easily. It's a student that anticipates the teacher's process of teaching, someone who is some steps above the rest. They are quick and have a special intelligence to see where I want to go with the students and what's the solution to a special problem. They have a very high development to solve problems, to understand texts, situations but also individuals and personalities. This is probably what some high gifted student don't have this skill to change to another perspective maybe because they are know they are quite special.

Interviewer: How did you learn about F? When did you feel that something was different?

G: Before he started school he was already able to read, he was already completely developed, he was crazy with numbers, counting everything, combining things, making calculations on his own, he was absolutely inspired by all kinds of numbers. And of course the speed on how he understands new information and situations it was very fast at learning languages. He has a very high level of language knowledge.

Interviewer: How did you understand that he was gifted? Was it from conversation with other people, was it because you were teaching children that age, how did you realise that his learning pace was different?

G: When he was playing with the other kids, when we met with a certain special group for kids, a group that from time to time organised meetings of young families so we could see that he was in a level of understanding that was far ahead of the other kids. But before school - in kindergarten it wasn't a big focus but when the school started you could see the difference.

Interviewer: How did you learn about V? How were you approached about her?

G: I knew her brother. I heard from other colleagues that she was quite smart.

Interviewer: Are you teaching D now?

G: No, I was his teacher two years ago. I heard of V, of her situation, and they told me she was two years younger than the other students. You get this information before meeting somebody and in the first class she was so amazingly fast in doing everything, it's a little bit like F, they need half the time to finish their work unlike the other students. What we do here is a bit easy for the native speakers of German in special subjects like languages.

Interviewer: For V, German is the first language or is she bilingual?

G: German it's her first language.

Interviewer: And for F as well?

G: Yes.

Interviewer: What kind of challenges do they present to you as a teacher? Socially speaking, how do their classmates see them?

G: Starting with V, she has a certain role in this class. If they have a class test and they get the grades and V didn't have the best marks they say "Okay nobody can do this" so she has a high acceptance and her class is very special because there are a few bright students in her class. In different areas some are musicians, others are bright in the science area so there are at least four or five students who are very smart. The others accept and try to work together with them and with V. And she doesn't mind. She fits in well and she feels integrated but she is different but it's easier here than in Germany for her and it's also easier for me to help her here because in Germany there are 30 students and here the groups are smaller, so it's easier for the class teacher so I can give her extra work and assist her better.

Interviewer: What about F? How do you think people see him or his classmates see him?

G: It's different between boys and girls. They know that he is quite good, for some of them he seems a bit arrogant to other students because he gets the point very quickly but he participates specially in sports. Sports are very important to him and it's important for him to be in the soccer team. They have a special peer group of German native speakers so they have a little but very strong German group in this class which doesn't mix a lot with the Portuguese group, so they have different subculture groups within the class but they accept it. When he gets the best mark it's sometimes a little annoying for them

Interviewer: In terms of criticism, how do F and V react to criticism?

G: V, is very positive. If there is only a little thing she asks and she wants to correct it and she wants to improve it immediately and she does the correction so fast and carefully. It's easy for her to improve and to correct her mistakes. F is young and with us parents are like "I don't want to do this", "please leave me" and "My teachers can ask for this but not you". It's quite different from the teachers and us, the parents.

Interviewer: If you give work to V which is slightly different from the other students, how do the other students and V react to this?

G: The other students accept this because they know that there is a difference and they know if not V is doing nothing for minutes or half of the class so she needs it more than

them. And they are happy because they don't get more but yes they accept this and they think it's positive. She asks for more as well, since she is starting puberty, in this last month she tried not to get more work than what is necessary so she is changing a little bit.

Interviewer: What about F? How does he react when getting different work from other colleagues?

G: In school it's okay. But if we give him additional work because he has to learn a little more in French he doesn't like it. He does it if we force him more or less. If it's by the teachers it's okay but he is not very interested in extra work or special activities. There is a sort of programme, it's just one competition and you can get a special award for this so he did it on his first year but now he is not interested in it anymore.

Interviewer: Is that programme done on a computer or not?

G: Some are. The reading contest is just reading texts in class with special jury which evaluates them and geography also. It's the international competition, there is a Portuguese competition and International German competition. In Germany he liked to participate in Math but in this age he is not very interested. When we return to Germany he will probably enter again the special programme for special students with teachers who do projects with them.

Interviewer: Is it done in the weekends or throughout the week?

G: Its done during the week at 1 o'clock in the afternoon. They go there additional to their school and they do little teams and they work on projects.

Interviewer: Why do you think that would work better for F than for example carrying out different projects for him in class?

G: I'm not sure. Because these are different teachers. Other teachers from other schools so they don't know him from school, it's not the level of evaluation or getting marks. It's different and they are very special teachers and a very special way of teaching.

Interviewer: Have you ever thought about testing him?

G: They told us when he was entering school that he could start with the second year. They made a test if he was able to start in the second year and then we got to decide if he

wanted to start in the second year. If we decide that maybe it's not enough for him or he is underachieving we would think of alternatives, but he feels good, he does his work and he develops the way he should and he stays in his age group. With V, she jumped two years but she is very lucky because with her personality it is not a problem but in Germany I see a lot of students with age differences because their personality doesn't develop like the others. Its quite complicated.

Interviewer: In terms of linguistic ability if we look at the Common European Framework, for example in your German class, where is your average student and where is V?

G: I'm not sure, I don't know which level of the framework is for this class, they should be B1 but in this age I don't know.

Interviewer: If in two years this class should be B1, is V already in B1?

G: Yes, I think so. She reached this level specially in her differentiation of vocabulary and expressions. Starting with argumentation, she starts very strong with both sides of the argumentation and she is already able to understand both sides and that it is something that we will learn next year but she already has that way of thinking.

Interviewer: Is she one year ahead or two years ahead?

G: She is one year ahead. She was the youngest, when she first arrived at the school like F she was almost one year younger than her fellow students from the same year. So she is nearly two years younger.

Interviewer: She is currently in the 8th grade. How old is V right now?

G: She is only 12.

Interviewer: And how old are the majority of her colleagues?

G: Most of them have 13, almost 14.

Interviewer: Did you get the chance to speak with V's parents?

G: Not really. We never spoke about V.

Interviewer: What help you as a teacher to answer to V's needs in a more effective way in class?

G: She gets more work. She gets special work to explain some main topics for the students. For example, when we are reading a short story, she gets a special work where she has to get information and background about the situation of the people at the time.

Interviewer: So since she finishes faster than the others when you give them a text to read she gets that extra time to search for the information maybe about the author, the history?

G: Yes. We have in the workbook, activities and exercises.

Interviewer: Do you find that those activities are useful?

G: Sometimes yes. Depends on the quality of the workbook, if it is a new edition or the old edition.

Interviewer: Is there anything else that you that is slightly different with V, the way that you question, the way she is paired with people? For example, in terms of grouping, who does she usually work with? If she works with somebody?

G: She has two students who she likes to work with, sometimes I try to mix her with other students that have different language levels. From time to time they get work groups which they can make themselves with whom they want to work with but sometimes they have special groups of three because I only have eleven-twelve students in class. So I mix them with different levels sometimes when I need V, for example, to be the specialist in her group.

Interviewer: And when do you decide when to do the type of groups?

G: Depends on the activity. I mix them from time to time.

Interviewer: What about the questioning method? What do you do differently with V?

G: I try to go into the intellectual side, I ask her why, to get combinations and things compared. How to change her perspective on things and look both ways, if it's a short

story or literature in general. She waits in class until we reach a certain level, she is there, she is attending but she isn't that active. She only starts when we get to a certain level.

Interviewer: What is she doing when you are repeating activities or repeating materials?

G: She is attending the class, she doesn't disturb or doing other activities and she sometimes just waits. I'm not sure but her mother is Muslim so they accept authority figures in a very positive level. She is very mature and not like the other kids.

Interviewer: As a parent, as regards to F, what do you think you would like his teachers to be doing differently?

G: We are lucky because he has a lot of good teachers who know him and sometimes ask if they can give him extra work. Sometimes he doesn't want to because he just wants to be like the others. I think he maybe needs an extra sheet of exercises or tasks more than the other students. I don't accept too much from my colleagues. I think that it's nice but...

Interviewer: Do you feel like you have all the materials and resources to respond to these gifted students? If not what would you like to have available at school?

G: I don't think we have enough materials in the subjects. I think we would need maybe teams of teachers so we could split the class in groups and work on those groups in different levels. We have some books but this is the minimum. So to have two teachers or a volunteer something like a teacher who is learning like teacher training to split these groups we could work, and with this group with four or five talented students that I could do a lot of things that I couldn't do in a normal class.

Interviewer: Do you get a chance to speak with your colleagues about V?

G: Yes, I do. Specially in this school. How to work and how to integrate her in groups.

Interviewer: Would you be interested in having professional development opportunities in the gifted and talented area?

G: Yes. For me and for the school. I think we do a lot for students that have a lot of problems but we don't do enough for students who are talented and gifted. We have the

responsibility because we have a few students who are really extraordinary. I was in Germany for twenty years but in this last four years here I have never seen so many gifted students. This school could work a little more on this. And it's a shame that we can't do as much as we would like to.

Interviewer: Is there anything that you want to add or any questions?

G: No.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

TEACHER E

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analysed as a whole with the rest of the interviews I perform.

Interviewer: May ask you how old you are?

M: I'm 45.

Interviewer: And where are you from?

M: I'm from Portugal.

Interviewer: Where did you carry out your teacher training?

M: In Lisbon and in Germany.

Interviewer: And how many years of teaching experience do you have?

M: 20.

Interviewer: What subjects and grades are you currently teaching?

M: Foreign languages - German and Portuguese as foreign languages in the 7th grade.

Interviewer: In all this time, either in university or afterwards have you had any training in gifted education?

M: No.

Interviewer: Have you ever come across a gifted person?

M: I don't think so. I don't really know what a gifted person is...What's the definition of a gifted person? Is it simply intelligent? I know many intelligent people but I don't know if any of them are gifted. So I'm not familiar with this terminology.

Interviewer: Would you say that in every class that you have had, over these years there's always been somebody or more than one person better than...

M: The others? Sure of course.

Interviewer: Yes, I understand that the concepts aren't always too clear.

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Interviewer: So in your opinion right now what might a gifted and talented student be?

M: Well I would say...it's someone who very quickly understands explanations and doesn't really need to repeatedly be explained things and sometimes he or she doesn't even need an explanation, someone who really from a very brief contact with a task for example...very quickly understands what they are supposed to do, someone who is very interested in things and maybe if I'm correct in this assumption...someone who gets distracted very easily because they understand things quickly so "Oh I've got that I understood that so I don't really need more of this".

M: Maybe someone who has a lot of interests, focuses but that's really my idea of what a talented and gifted person might be.

Interviewer: We are looking at F who is a student you consider to be quite intelligent and you've also said that in the same class you have other students who are similar?

M: Well, intelligent. I would also say they are also intelligent.

Interviewer: Ok. So we are going to focus on the kind of strategies you might use with somebody who is intelligent or students who are high ability in Portuguese in this case.

Interviewer: Socially speaking do you find that there are challenges? I mean how do their classmates see them for example?

M: I think they see him as someone who really knows everything.

Interviewer: Is that a positive thing?

M: I don't know if among children that's a very positive thing.

Interviewer: Like a smart alec?

M: I think it's just someone who really knows everything. Someone who doesn't fail. Someone who for example has always over 90% of the answers you know? So socially he is popular and I don't think that brings him any disadvantages.

Interviewer: How does he react to failure, how does he respond to criticism?

M: He is quite mature. I think well he gets a bit...for example well this time he didn't get a spectacular grade as he normally would and he accepted it and if I explain why he'll accept it. But I don't think he cares about it because he knows he is going to overcome that. I mean he will be better next time.

Interviewer: And for example if he gets a grade lower than he expects does he ask you why?

M: Yes, sure I tell him why and I think he understands it but I don't think that's a problem for him because he knows he will be better next time.

Interviewer: And in terms of autonomy?

M: Totally autonomous. No problem about that.

Interviewer: Are there any behavioural challenges?

M: Well he is very restless maybe because he is distracted by things he loves to talk with his colleagues you know? And he really doesn't need to pay attention so I guess he is always very chatty. So sometimes I really have problems telling him "Please be quiet, we want to do this in silence" you know?

Interviewer: Has there been a situation where there's been something that he got really wrong and he had difficulty accepting the mark?

M: No, no. I don't think so.

Interviewer: In terms of motivation how is he different? Or the other very intelligent students, how are they different from the average students?

M: Motivation to learn Portuguese? I think he is motivated but not very motivated. I think he is leaving Portugal pretty soon. I don't know if the fact that if he were staying longer would make it different. So I'm sorry I can't tell you if he is very motivated or not because he is leaving.

M: We've had a presentation about Portugal and how long they are staying and what they like about it and he said that he was going to leave the country so I don't really know if that has any repercussions.

Interviewer: Does he ever have to do different work? Him or the other students?

M: It's something I would like to introduce actually because I have a very particular class with many different language levels because these are kids coming from Germany or other countries at different times of their lives so their knowledge of Portuguese is very different so you see actually I should have different things and I'm really trying to do that. It's a challenge for me and I'm still learning how to do make them do different things so I think yes I would have to do that.

Interviewer: In terms of the Common European framework, could you maybe give me an indication of what levels exist in that class?

M: A2, B1, B2...

Interviewer: That's quite a lot. And where would you put F?

M: Well the highest. B2 advanced. I've talked with his previous teacher and there was also an idea of asking him and his family to put him in PAM which is the Portuguese as a mother tongue class. There has been this suggestion because he is so good at Portuguese that the Portuguese classes as the mother languages would be more challenging for him.

Interviewer: That is very interesting. Thank you. In terms of language learning itself can you think maybe in two activities in class, maybe explain how F reacts to those activities? How fast he is? How he does things differently from other students?

M: That's exactly the point. He is very fast, he plunges directly into the exercise and wants to get it over so he is very fast and he says "Oh, I'm finished".

Interviewer: Once he does finish, what kind of activities are given to him?

M: If he finishes I should give him more and more activities but the problem is sometimes I'm not prepared for that. He has to wait until the others are finished...that's probably my problem but ideally he should have more activities so I should have more things prepared for him. With this landscape, with this language level of diversity it is very difficult to prepare and also because you don't know how they will react, if they are going to need more time (the others I mean).

Interviewer: What kind of interests does F have in particular? So what kind of passions does he have? Hobbies?

M: They all like football I think and music. And he plays the trumpet or clarinet.

Interviewer: What kind of help would you like? What would help you as a teacher?

M: Methodology and how to implement different activities at the same time so that the others don't feel awkward because they are doing something different than the others.

Interviewer: Do you find that it's a problem?

M: Yes, sometimes they say "Oh but they are doing this and I'm doing this but I want to do that" you know?

Interviewer: But is it the strong learner himself that feels that way? When we say for example F I would like you to do this, do you think he would be the one to react differently?

M: No, no. The others would.

M: And then I would like to accompany them all you know? Because I have to switch constantly or I would have to switch constantly.

Interviewer: Do you do group work?

M: Sometimes but they are very restless. They are very noisy sometimes because you know this is the only group in which they have German speaking students are together so

they are anxious to speak German about themselves. And it's very difficult to discipline them, it's very different in this group and very difficult to implement discipline.

M: And F has a part in it because he is always talking but as I told you I think that's partially my problem that I don't bring enough challenges or enough challenging activities and that's where I would appreciate help maybe. In methodology and what would work.

Interviewer: For example, when referring to students who are weaker, is there more help available?

M: No, I don't think so, you mean...

Interviewer: The resources, books, materials...

M: Probably, if you have normal learners I mean we have responses for these normal level learners. When you have these highly gifted or highly intelligent students what can you do with them? So yes we have more help for weaker learners.

Interviewer: Do you often get an opportunity to talk to other teachers or colleagues about your concerns, needs and projects for these stronger students?

M: No, not really.

Interviewer: Would you like to have professional development opportunities in the gifted and talented area?

M: Yes, why not? It is always welcome.

Interviewer: Is there anything that you would like to add? Are there any questions that you would like to have answered?

M: About this topic of course, I would like to know your conclusions. If my answers are somehow similar and I really hope that I have been helpful because I don't really have much experience with gifted students.

Interviewer: Thank you very much for your time and collaboration. This has been an interesting conversation and will certainly contribute for my research. I will copy the interview into paper support and I have one last request. As soon as I have done it, I will ask you to read the transcript in order to validate the content.

TEACHER F

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analyzed as a whole with the rest of the interviews I perform.

R: I agree.

Interviewer: May ask you how old you are?

R: I am 37.

Interviewer: Where you from?

R: Lisbon.

Interviewer: Where was your teacher training?

R: Well. I am from Lisbon but I went to live at about sixty kilometres away from here so that's where I did my so to speak internship in high school to teach Portuguese and French and then I went abroad to France to teach Portuguese as a foreign language and then I went to Italy to teach Portuguese as a foreign language.

Interviewer: So your degree is from Portugal?

R: From Portugal, yes.

Interviewer: What subjects and grades are you currently teaching?

R: Portuguese and French.

Interviewer: And what grades?

R: So...Portuguese I'm giving to fifth, seventh, eighth, ninth and tenth grade and French to seventh grade.

Interviewer: Have you had any workshops or any training in gifted education?

R: Only in autism, dyslexia, special needs related but not to the other end.

Interviewer: How many gifted people do you think you've come across in your circle? It could be friends and family... yourself.

R: Like 10.

Interviewer: 10?

R: Yes, I think so, for the most relevant reasons.

Interviewer: Are you including students in that?

R: Yes.

Interviewer: Okay. So, how many would you say are students and how many would you say are family and friends?

R: Half, half.

Interviewer: In your opinion, what is a gifted and talented student?

R: Someone who knows exactly what they should be doing in order to achieve their idea of success.

Interviewer: And in this particular case, of course I'm going to, also be asking questions about the two students that we already mentioned. So how...what do you know about them and how were you given that information and what do you think about it?

R: I perceive a lot. I observe...my students. I get to know them just by watching them do stuff and by, just analyzing whatever I'm seeing so it's kind of strange and challenging because it's not that I have something that says to me like in a paper "this is a gifted student". But at the end of it I know he or she becomes a successful person. Even so, there's no paper that can tell you that, I mean, you just get it by working with them by seeing the strategies that they apply, by looking at the way they act in the class, by

looking at the connections they make between the different languages that they learn because here they have German, Portuguese, French, English... some of them also know Spanish. It's a wide range of languages that can be absorbed by them with the rules and with the exceptions and with the comparing of one another so it's kind of really interesting to see what they come across.

Interviewer: About A and F - How were you approached about A? Who told you about A? What were you told?

R: I know A's story, I mean there is so to say a psychological background, psychological issue, family issue so it was his mom that came to me and said very openly. You have to mind A because he is very sensitive, yes sensitive is the right word, he is very sensitive, when he gets to know you he will believe in you, you need to support him, you need to mind what he's doing.

Interviewer: She came to speak to you as his language teacher?

R: As the language teacher yes. Portuguese and French teacher because I see them quite often during the week. So she came to...you know with mom worries. F I met in class. I immediately started speaking to all of the class in French so his first approach was like, "God, what is she saying, oh my god oh my god" and step-by-step and that something his mom tells me because we work together— She's a teacher here and she says: "You know what, he comes to me every day saying French is very easy. He doesn't study hard and I said to her he doesn't need to because he gets it. Just like, you know when you're trying to explain something. He is already there; you see it on his face, "I don't need you to explain it. I have it, let me do my exercises and I'll show you that I've really understood it."

Interviewer: As regards to going back to A when his mother approached you - did whatever she said make sense to you?

R: Yes.

Interviewer: Did anybody use the word gifted for example?

R: No.

Interviewer: So the mother approached you about him and then probably...

R: Just to explain to me how he is, how his personality is. Not how he acts regarding school.

Interviewer: Now I'm going to be focusing on the challenges that the students might present in the classroom setting itself.

R: [affirmative sound]

Interviewer: Socially speaking how do you think their classmates see both of them? Here we need to speak about both.

R: I think that they are both...they are both part of the class, meaning they're integrated, they are not cast away, they are not put aside, no absolutely not but there are moments when, because we have Portuguese students and German students, so the Portuguese students often tend to care about A and the German students often tend to stay with F which is normal regarding nationality but I don't see them as being any different.

Interviewer: What about emotional maturity?

R: That we have cultural thing because the thing is we Portuguese tend to be very open, we tend to be very warm, we tend to approach people easily and that happens with Portuguese teachers and students. On the other hand, we have German students who tend to be a little not cold, but like...

Interviewer: More reserved?

R: A little bit more reserved, a little more distant if you can say that so I'm not saying one is nicer than the other. It's not - absolutely not that. But I get to A much more quickly than I get to F because of what I said before, because you know F laughs in class, he tells some jokes and he is cool you know he likes you but his own space is his own space. When he wants to ask you something he will go to you or he will ask you to go to him, but my space is my space and your space is your space, we don't interact.

Interviewer: What about their level of autonomy?

R: I'd say they are really autonomous,

Interviewer: In comparison to everybody else, to the average students?

R: No, they are the same. Because in here we teach them to be, how to do it since the first grade or since the fifth grade.

Interviewer: Do any of them in any way or form challenge you with their behavior?

R: Yes. Over talking?

Interviewer: What are we talking about? Who are we talking about?

R: I'd say A; He challenges me that way. Just with one look. One little sentence, one comment, one...

Interviewer: What kind of comment?

R: Like, "This is not a good day for you is it?" or, "Are you upset?" or, "Whoops I think we should be quiet!" or...

Interviewer: (laughs)

R: Go ahead laugh, go ahead. Well he is nice, really nice kids and that's how you see that he's not really a grown up. He is still a child you know?

Interviewer: But when he says that, is he spot on? Is it a bad day for you? Is he picking up on cues?

R: Some days yes, some days not because I'm really what you see is what you get you know? In my face you can see everything. If I'm having a bad day, each one of them will know and each of them will know exactly what they shouldn't do to make it worse. So most of the days I would say yes he is just trying to understand what's happening. If there's something happening and some other days, it's just me just trying to fool them so that they just behave because maybe I have a headache or whatever.

Interviewer: How do A and F's peers react to their interventions?

R: Very naturally, very naturally. All of them take it really naturally. There's absolutely no problem.

Interviewer: Can you think back to a time where you had to kind of criticize their work? When they missed something, they made a mistake with something?

R: I just criticize them. I mean, I criticize I say, you've done something wrong without the

criticism. I just try to be as nice as possible and say “you’ve misread it or you are not doing it in the right way or perhaps you didn't pay enough attention or just always doing it in the nicest way because they are twelve and thirteen you know the age where we tend to be a little...

Interviewer: Sensitive?

R: Yes...

Interviewer: And none of them react badly to their mistakes?

R: No, no.

Interviewer: What about in terms of motivation? Do you find that they are different from the average student in terms of motivation towards the language teaching?

R: No, no.

Interviewer: They are as motivated?

R: I think they are as motivated and of course speaking about people, I think that they have their different things, hobbies or interests or particularities that interest them, but I think they're all motivated.

Interviewer: Do they often have different work from the other students?

R: When they finish earlier, which is often the case with F yes.

Interviewer: And what kind of work is given to him?

R: The kind that allows him to go ahead, to go over the same topic with a bunch of extra exercises.

Interviewer: The extra activities that he would do, would they be something that you think about or the book already has or...?

R: Usually the book has some. Usually. It goes without saying I spend the weekend trying to widen the variety of things that I offer them so that they just don't focus on the books that they have so that they can watch, even do listening activities because French has a lot to do with listening. I tend to be as open as I can.

Interviewer: Do you find them very different from the average learners when it

comes down to cognitive abilities?

R: They go deeper. They just don't content themselves with all this "oh this is the rule I have to learn". They go further - they want to know why. For example, I usually say to them French is the language of the exceptions, not the one of the rules because for every rule there's a hundred exceptions, and they often ask me, "But if this is a rule and there's a bunch of exceptions afterwards why do we learn the rule?" and this is a question that normally no one asks.

R: They try to find out why and how come, kind of challenging me to teach examples that show why it is like this - why does this have to be an exception? And that's really challenging for you as a teacher because you end up a student as well.

Interviewer: Of course, it's absolutely the most challenging and interesting part. Imagine that we were to work together on creating activities for these gifted students, what other areas do they enjoy learning about? I was told for example, about F and football, in his passion about football. I don't really know of A's interests.

R: Anything regarding the human body. He will tell you why you have that disease. He will explain to you, even the slightest detail of it anatomically speaking, he just knows everything about it.

Interviewer: And does he bring that into Portuguese and French? Does he bring that interest into Portuguese and French class? Is he able to...

R: I mean in French... not yet, because we haven't learned the body parts yet but in Portuguese yes. There might be someone complaining about a headache and he goes and asks what is hurting and he will tell you that if it aches in one place it means whatever, if it aches somewhere else it means whatever. Every single detail of it, he knows it all. So yes.

Interviewer: In terms of language learning, when we are looking at The Common European framework, where does A currently stand? I know that F is not in that Portuguese class right now because I am assuming the Portuguese classes are for native speakers?

R: Exactly.

Interviewer: Although it was suggested at some point that F could change...

R: Classes...yes.

Interviewer: And is that going to happen?

R: If it did, it would be a pleasure because even though we do absolutely different things, harder things obviously in Portuguese he would get it just like that you know? You get the idea that he doesn't even look at the books the day before the test. You just know that he knows. About A I would say a C2+ level. I know it doesn't exist but...And the rest of my students, some are between B2 and some are between C1- level. So he is a very gifted person, even in the way that he comes to you know? Formal, polite, extremely polite... I know what I'm doing, I know I'm talking to you, using the right vocabulary, asking the right questions. It's just awesome.

Interviewer: What about in terms of French? So in that class, what are the ranges that you have and where is F? And where is A?

R: Since they've started this year with French I would have to put them both in an A level but I would say an A1+ because they don't talk. I sometimes speak in German with them, which makes it harder for them to speak French and I know that it is a mistake that I make which I'm trying to correct, but I would have to say that since they don't speak so much in class I'm just looking at reading ability. I would have to say an A1+ going to an A2.

Interviewer: And the average student would be....?

R: An A1 and I have a student who is probably an A1- .

Interviewer: We spoke about what you do in terms of giving F an extra activity when he finishes earlier than everybody else. What kind of other activities are going on in the classroom? Is there anything that is different for any student at any end?

R: No, no.

Interviewer: What is it that you need to help these students? These very strong students?

R: Time...time to time to check the most helpful strategies to put the materials together in order to help them develop their language level.

Interviewer: It would be nice to have a selection of strategies that they could use.

R: Yes.

Interviewer: And again it would be very different in French at A1 level and Portuguese at C2 level.

R: There's nothing to do because French is a foreign language for all of them, and Portuguese in my case is my mother tongue and for all of them. So the skills are completely different.

Interviewer: Besides the fact that I think we would need...we would have to take into account the individual differences because again they can be both very varied and very different right?

R: And rhythms, and motivations and interests and yes all that.

Interviewer: Do you feel like you have all the materials and didactic resources to respond to these students? If not what would you like to have available at school?

R: I think we have a lot, not to say everything because if it's not here I'll bring it from home and show it to them, but we have internet access. In the classroom I can show them whatever.

Interviewer: How often do you get a chance to speak to a teacher, or your colleagues from other subjects? How often do you get to talk about these students? Their needs? Their projects?

R: Every time I feel the need to.

Interviewer: How often does that actually happen?

R: I would say, I don't know, in Portuguese we tend...we have a team that basically helps every one of us to share the work and then we would try and put it together and we try it in both classes. We share and that doesn't really happen with French because I have unfortunately or fortunately I don't know a different way of comprehending, of accepting French. To me, French is not a foreign language, it's my language so it's kind of hard for

me to understand when you say to me “but French is a foreign language” no it's not, it's part of me I feel just that I treat Portuguese and French equally, and other people usually don't, you know? And that gets in the way with French teachers, mostly loving to work alone doing their own things. Instead we Portuguese, we have a large Portuguese group, we tend to share everything we do, so it gets easier.

Interviewer: In those cases, when you have the meetings, when you have the team meetings, do you tend to think about activities for or discuss A and F?

R: No...Yes, we do discuss students that have the most problems so that we can just think of a strategy that we could adapt for them. It's really...It's true that we don't pay enough attention to these gifted students in a positive way...We should. Talking about this, it makes me realize that this is important.

Interviewer: And would you like to have any professional development opportunities in this area?

R: I would.

Interviewer: Is there anything you want to add, something about the way they learn, what you think about this field, things that worry you?

R: No, I think we covered it all, I think so.

Interviewer: Thank you very much for your time and collaboration. This has been an interesting conversation and will solely contribute to my research. I will copy the interview on to paper support and I have one last request. As soon as I have it done, I will ask you to read the transcript in order to validate the content.

TEACHER G

In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

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I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analyzed as a whole with the rest of the interviews I perform.

Interviewer: May I ask how old you are?

C: I'm 35.

Interviewer: Where are you from?

C: I'm from Vila Real.

Interviewer: Where did you carry out your teaching course?

C: UTAD, Universidade de Trás-os-Montes e Alto Douro.

Interviewer: How many years of teaching experience do you have?

C: 13 years.

Interviewer: Are you currently teaching 7th grade?

C: Not just 7th grade but 10th grade as well.

Interviewer: Did you ever do any teacher training in gifted education?

C: No, never.

Interviewer: In your opinion how many gifted people have you had contact with? Either in your family, friend circle or students?

C: I don't know, I never thought about it. I've had some students that stood out along the years. Some of them are native speakers, others just have a good ear and most of the times what I noticed mostly along the years, unlike M, most of these students are not interested in learning. They don't know much about grammar. I have one of those this year. It's a 10th grade professional course and he is very good, he can maintain a conversation almost like a native speaker level but he doesn't know grammar or the structure at all. I know that they have contact with native speakers online, through games and they pay attention to films without subtitles, so they learn English intuitively. I don't know if you can call them gifted students but they do have a special ability to absorb the language.

Interviewer: In your opinion, how do you define a gifted and talented learner?

When I had a native speaker (American) and I was teaching him in a 10th grade professional course, everything was too easy for him, in order to maintain him interested and motivated I would bring him different worksheets. I actually brought books so he could read them and summarize them and answer questions about the books to develop his vocabulary instead of just listening to something that he had already heard from a long time ago.

Interviewer: In terms of defining gifted and talented learners, you mentioned earlier that they have a special ability in learning right?

C: It's not actually learning I think - they just absorb it. They don't process it. They are passively absorbing what they are being exposed to. They are usually very lazy students.

Interviewer: What do you think about their emotional maturity? Is there something different?

C: I don't know about the maturity. What I do think is different about them is almost like the kids with autism, they all love English, it's a specific interest. They are naturally motivated to speak the language, to use the language, not to learn it - they want to use it. That's what different. When they are gifted in English they are almost always not very good students at other subjects and I'm thinking about a student who had 19 at almost all subjects and he struggled to have an 18 at English. He was very good and very

hardworking but English was his weakest subject. And usually when they are really relaxed and laid back about the language when they are communicating it makes it easier for them and for their brains to get the required vocabulary in their memory bank in order to learn the structure. So in terms of personality I would say they are more relaxed and they are more abstract. In terms of maturity they have a different kind of thinking.

Interviewer: What kind of behavioural challenges have there been with gifted learners?

C: With that kind of students they usually don't want to work. Most of them at least. They are the kind of students that are very good, everything comes very easy for them. In Portugal we teach a lot of grammar and they don't find it interesting. They don't want to do what we are doing in class. For instance, in that class, the 10th grade professional course, in the beginning of the year I noticed that they are above average, their level of English in class was above average, we have a different syllabus for professional courses. I noticed that everything was too easy for them so I decided to use the book for normal 10th graders and it represented a challenge for them and everything happened a lot easier, and they were more interested, they were learning and they were producing. Usually these students want challenges - they want to hear something that they never heard before.

Interviewer: In terms of the European Common Framework what is the lowest average and the highest student? (Let's say M versus the girl that was here)

C: This is for the 7th grade.

Interviewer: The highest level would be an A1?

C: No, more than that. M is the only one that can translate everything that goes on in school for P, they speak in English outside. So they can already communicate. I would say she is a B1. If she took one of those Cambridge school tests she would probably be a B1.

Interviewer: The average student would be around the level A1 then?

C: Yes.

Interviewer: Regarding the strong students in your class, how do you as teacher help them or answer these students' needs in a more effective way?

C: It isn't very easy to cope with that because we have too many students and too much work. We have another challenge which is the fact that a lot of these students don't want to work. Our motto for the second term was "no child left behind" and I tried hard to help the weaker students so it doesn't leave us much room to help the stronger ones involved. I've always had this opinion that the best is to create classes of levels like in most Cambridge schools. This would be ideal for us to work because it's very hard to have so many students. Plus, I have seven classes and it's very hard because we have to deal with other problems.

Interviewer: Do you ever group them?

C: Yes. I usually put a weaker student with a strong student and this is a problem here in Portugal, I've been in many schools because I'm a substitute teacher and in Portugal we work for the results. We want positive results from students and we work more in order to help weaker students to have positive results. For example, here in the 7th grade we have to have an average of 89% of success rate in this school and that's a lot. With 22 students and 89% that leaves a very low margin of negative results.

Interviewer: What would help you, if you could have the material and the resources to cater for the high ability and gifted students, what would you ask for?

C: Well, I would ask for classes, levelled classes first of all. That would be perfect. We would be working for the students at different times. On the 7th grade you have a lot of grammar to teach. It's a long list so you have no time to work on a specific subject for too long. If I had the same kind of students we would be able to work on the same subject for several hours and give more attention to these students. Sometimes I give them extra work, I can always tell them write essays and give them to me so I can mark them and help you with it and some of them do that but in class during the 90 minutes or 45 minutes we don't have time for that on the 7th grade. However, on the 10th grade it's different because we have less students.

Interviewer: How many less students? What's the number?

C: Most classes don't have 20 students in this school. Depends on the school but they have more time.

Interviewer: Do you talk with to other teachers or colleagues about your concerns about the high ability?

C: Yes, yes of course. But we are not concerned about those students. We work for results so we are not concerned. We are happy for them and we are proud of them and they can even help us with other students.

Interviewer: How easy or difficult is it to differentiate in these class?

C: 7th grade?

Interviewer: Yes.

C: Very difficult. Almost impossible, take a look at the syllabus. I have no time to stop and say "Okay let's develop this skill". The only thing we can do is extra class and ask for more work because in class I don't even have time to help all the students understand how things work. When you go to a secondary school, 10th grade. They are supposed to already know all the grammar. You only start developing skills when you go further in the secondary school. Not in the 7th, 8th and 9th grade because you are too busy working on the structure because some kids are gifted in the sense that they have a very good ear and they learn naturally when they are exposed to English but others are like deaf. They don't hear anything; they don't pay attention to movies or songs or games or whatever. Everything they learn is in school and that's not enough, they have 90 minutes of classes plus 45 minutes per week and that's not enough. They are just learning the structures so they can start building sentences and at this level they are still trying to directly translate it into Portuguese and its difficult. Some of them still have difficulties understanding that the two languages do not have the same origin (Latin) and aren't structured the same way.

Interviewer: Would you like to have professional development opportunities in the gifted and talented area?

C: Yes.

Interviewer: And is there anything you would like to add? Any queries, any thoughts, any ideas that you have?

C: About gifted students?

Interviewer: Yes.

C: We don't have gifted students. We don't have room for the gifted students here.

Interviewer: But do you think you have gifted students in this school?

C: Yes. Not on the 7th grade and you can't tell yet but for instance I can tell that G is more gifted than M.

Interviewer: Why is that?

C: Because he is more relaxed. There is something in his brain that is different. She is more introvert and if she is under stress she can't form a correct sentence. He reads books in English like Harry Potter but I don't know where he learns it. He just knows. He just has an aptitude for languages. M is probably going to be a lawyer like her parents and she is being programmed that way but G only has one parent and he is moving from house to house, there are a lot of problems going on but he is learning naturally.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

TEACHER H

Interviewer: In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches inside the classroom. I will guide you through a series of open-ended questions in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset and I want to thank you for sharing it with me.

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Interviewer: So may I ask how old you are?

D: I am 28.

Interviewer: Where are you from?

D: Germany.

Interviewer: And where was your teacher training or your teacher education?

D: In Germany.

Interviewer: How many years of teaching experience do you have?

D: Almost a year.

Interviewer: And what subject or grades are you currently teaching?

D: I'm teaching grade 6 to 11. English and Biology.

Interviewer: Have you had any courses or any training in gifted education?

D: No.

Interviewer: How many gifted people have you had contact with? Either amongst your friends or family?

D: Definitely not myself but I think I had another student during my teacher training but

she was not diagnosed so we don't really know. There are two that are gifted and among my friends it's not really a topic so...

Interviewer: What might you define as a gifted and talented student?

D: A gifted student for me is a student maybe from the school surrounding who has difficulties also to adapt to the situation given because they are above average. Their abilities are related to certain subjects or skills for example English or other languages and usually at least what I associate with it is also that they are gifted in some aspects but less in others for example social aspects. That isn't a definition though.

Interviewer: So when did you learn about A and F? Had you thought about them before in terms of their linguistic capability before you were actually told about it?

D: No. Well the first time I heard about it was when the observations were being organized. I realised before that A's English is already quite American and he has a wide range of vocabulary but is also new to this system. I wasn't sure if it was because of the system or because of him personally, so I couldn't tell right away.

Interviewer: And what do you think their characteristics might be?

D: As being gifted?

Interviewer: Yes.

D: When I look at A he seems also to already embody, kind of he feels special in a way because at the beginning like there were great difficulties because he was talking the entire time. He felt that he didn't have to stick to the rules like everyone else. He talked whenever he wanted to and because he also thought that whatever he says is correct and important, everybody needs to know and this was striking at the beginning. With F he was just very quick with what he does and there's usually no problem.

Interviewer: What are their social challenges?

D: A's challenges are to stick to the rules which has gotten better I must say. Sometimes he is also the class representative and he sometimes is very ambitious which annoys other kids because they are like "why do you care?" and "why do you make such a fuss out of nothing?" and this could be one challenge that some other students don't really

understand his behaviour.

Interviewer: Is he chosen by his colleagues?

D: Yes, yes he is. Other challenges for him are that he has difficulties with German but he feels very confident in English so if we speak in German he always asks if you can to English and he doesn't really seem that he doesn't really want to fight, connected to other things. He prefers to work in English as he's already quite confident in it.

Interviewer: What about like F? Are there any social challenges that you can think of?

D: He seems like a normal boy for his age and he is widely accepted, no social challenges sometimes but I don't know if it is also due to puberty but he's like he understands more quickly when we have discussions in class that there is sometimes no sense in discussing any further and he is like "Why are you still arguing, there's no point" and "Can we just stop?" and then he just gets frustrated but nothing very striking.

Interviewer: So can we go back to this idea about how A will help other students and how other students might view some of his ideas? How do they react to his suggestions?

D: Sometimes they are annoyed like "Oh it's A again?"

Interviewer: You were saying that his ideas are ambitious I think. That's interesting.

D: No, ambitious in the way he behaves and not really what he says but there's things that concerns and I don't know if it is his personality but he is always like "There is something I need to talk to you about" and eventually there is nothing really that important. He acts like what he said and what he wants to say is important and also in class when we talk for example in the discussion is over or we've collected all the answers he might still have his hand up because he still wants to say something because he feels that it's still important what he has to say. Ambitious in that way.

Interviewer: In terms of emotional maturity for both because we are talking about two different students...

D: F already started puberty so. They don't seem very special like out of ordinary.

Interviewer: They're not like immature or over mature?

D: A sometimes is in the way he speaks and in the way he wants things to be solved but see for me it's difficult because I've only known this these students for half a year so sometimes I can't really make a clear diagnosis.

Interviewer: How would you describe these students' level of autonomy?

D: F is very autonomous and A as well yes, but he has asked more often "Can you check if that is correct?" but in general they are fairly autonomous.

Interviewer: How do they both respond to criticism?

D: They are not criticised very often actually. For A it seemed a bit difficult at the beginning when E told him "Okay hey you also have to stick to the rules, you also have to raise your hand and we practice a little bit more or less but I wouldn't really ignore him but he would get a second chance to raise his hand and then answer again so we trained that a little bit and after that he's also been better with criticism. They don't react very aggressively or anything.

Interviewer: In terms of motivation, how different are they from average students in the class?

D: A is very motivated but he also told me when they got their reports last Friday that his stepfather told him "If you're among the three best students in class, you get a certain amount of money" and if he's the best he gets €500 so it's not like a little bit of money but quite a lot so I don't know where his motivation comes from. Therefore, he came up to and once again asked "so why did I get a two and not a one" but in the beginning it was very severe because he was motivated by being better than F not just by having a good grade being better than others that was more or less his motivation.

Interviewer: So he is very competitive?

D: Yes, and F does what he does and he is just good at it. It seems he doesn't feel that he needs to be better than...it's just easy for him to do things.

Interviewer: As regards to the program, the curriculum itself. How do they react to

that? Do these students feel that they would like something else?

D: You mean go beyond the school book?

Interviewer: Yes

D: We also sometimes do that, so it's not that we only strictly work with the book so it's difficult to answer.

Interviewer: Do A and F have different tasks from other students?

D: Sometimes they do. It depends. We are setting up a helping system so that they get to help other students because there are some that are really slow and they are really fast so they get to help others as well. They sometimes get additional exercises or complex exercises but that's more I have to say ... everyday life it's more what comes up spontaneously not that they get completely different worksheets or anything.

Interviewer: And in terms of their cognitive abilities, in terms of problem-solving or creativity or notions of vocabulary or being great and fast at things how do they compare to one to the other? Amongst each other and average student?

D: Amongst each other both are very quick with what they do and they are fairly comfortable with what they do and also the same compared to other students. They are quicker. Quick in a sense that they work quicker but also that they understand quicker.

Interviewer: In terms of vocabulary for example, would you say that it's way richer than other average students?

D: A's is but F I can't say with certainty.

Interviewer: And in terms of the European framework, what kind of levels do you have within this class?

D: There are a few girls that are very quiet. They even have a hard time correcting at the same time we are correcting in class even if I tell them "here have a look at this task".

So there is a wide range but if you refer to the European framework, B1 is rather stretched, so some are more A2 but most are somewhere in B1 level.

Interviewer: So your top students are at the end of B1?

D: In terms of vocabulary I would say yes but in terms of grammar probably not but the problem here is that they are exposed to English and such a great variety so they just pick it up from anyone in their surroundings. Because when we look at grammar for example it's very explicit that they use it more or less correctly without knowing the grammar but if we do specific grammar exercises then of course sometimes they have a mistake. It's not the authentic use of language.

Interviewer: In terms of any kind of different activities that you might do. Can you give examples that you might carry out with, not just with A and F but any other students that you think or are very good, very fast?

D: For example, if they are fast I have the helping system where they get to do extra exercises for example when the vocabulary is more advanced or sometimes they get less of a helping system where there are no phrases or no instructions is given and they do it without the instructions for example. That could be one possible aspect that comes to my head right so.

Interviewer: Do you often have group work going on?

D: I used to in the beginning but not at the moment because they were like bees, they are just very noisy and it seemed they still had difficulties to work independently so this is why at the moment, they do pair work which works fine but group work in large groups of three or four, not at the moment.

Interviewer: And when they do the group work what kind of grouping would A and F be in? Would it be mixed ability, homogeneous grouping or is it random?

D: I usually like to have groups of different levels so that we have some students that can more or less guide or lead the group and they would be the strongest in these groups.

Interviewer: That would mean that A would be in a group where he would be the strongest student and then F in another group?

D: Yes.

Interviewer: Do you get a chance to speak about your strongest students, whether is it the strongest or your weakest students to your colleagues? To the head of

department? Do you get to talk about these situations?

D: Not really, not really. Only if there is a certain incidence or anything where we talk colleague to colleague if we teach the same class. There are actually, but not in seventh grade. There are at the end of the conferences for the reports, there are always students that can be nominated for certain awards where they get funding that would be a chance.

Interviewer: Would you like to have professional development opportunities in this area, in this gifted and talented area?

D: In which way?

Interviewer: Maybe workshops given by the school or training outside or something that would interest you, that you think is needed?

D: In general, yes, because usually it's focussed on students that are weaker and because you always fear that you lose some of the students on your way and it would be helpful...I just don't know when though.

Interviewer: Is there anything that you would like to add? Are there any questions that you would like to have answered within this area?

D: I would have to think about it a bit longer. I don't know at the moment but for now actually what my difficulty is to focus on them even further because you have 26 students and there are two who might or could need a bit more special attention but also other students could need it for different reasons. It sometimes feels that you have to stretch between giving them special attention and not giving them more advantages or focus on them too much because then they also turn into outsiders because they already know the answer or they are better anyway so we don't have to do anything. It would be helpful to have more aid in that sense. To make this stretch, not so big.

Interviewer: Thank you very much for your time and collaboration. This has been an interesting conversation and it will certainly contribute to my research. I will copy the interview onto paper support and I have one last request. As soon I have it done, I will ask you to read the transcript in order to validate the contents.

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TEACHER I

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Interviewer: May I ask how old you are?

I: I'm 44.

Interviewer: Where are you from?

I: I'm from Portugal. I was born in Setubal.

Interviewer: Where did you carry out your teaching degree?

I: Universidade Nova de Lisboa

Interviewer: And how many years of teaching experience do you have?

I: 22 years. Mainly as a Portuguese language teacher.

Interviewer: What subjects and grades are you currently teaching?

I: English, 8th grade and 9th grade currently.

Interviewer: Do you recall doing any training in gifted education either in university or afterwards?

I: No, never. Not even at university.

Interviewer: In your opinion, how many gifted people have you had contact with either in terms of your family, friends or students?

I: None, I think. That is my perception of course.

Interviewer: What do you perceive to be a gifted and talented student?

I: I really don't know. I have the idea that sometimes the gifted are misunderstood. They have difficulty in social skills, sometimes they don't seem that bright or brilliant students. They are very shy sometimes also and they have different interests from the school programs. That is at least my perception. The content from school can be very easy for them since they already know it sometimes.

Interviewer: Currently you don't have any gifted students in your classes?

I: No.

Interviewer: Focusing on your classes and the high ability students how did you realise that they have high ability? Was it from prior classes, other teachers?

I: I think that when we meet a high ability student in the first classes the skill that they have, probably the speaking skills are the most developed or when we ask them to present themselves we can tell that they have high ability.

Interviewer: In terms of language learning how do you think they differ from the average learner?

I: I think that they have a kind of input knowledge different from the others. There are certain students that you teach some grammar content, for example 20 exercises and they learn it after doing the exercises, and they have the ability to understand it. Sometimes they don't even know how to explain the rule but they can do it. They talk in English by learning in the internet and by watching TV, they just have a different contact with the language.

Interviewer: What about any social challenges that these high ability students may have? Any social challenges?

I: No, I think that they are just like the others. Im thinking about a girl, she is a high ability but she is completely different from the other two. The other two are very

confident and sociable and but she is a bit shy and more responsible, hardworking. The social ability is completely different.

Interviewer: How do they intervene in class? When do they make a comment? When do they ask questions?

I: Always. They are always asking questions. They are always like that but I try to ask different people to answer.

Interviewer: How do they colleagues react to them?

I: They don't care.

Interviewer: What about in terms of motivation, are they different from the other students?

I: No. They are just the same.

Interviewer: Do they often have different work from other students?

I: Sometimes, they work very fast for example if the exercise takes 10 minutes to do and they do it in 2, so sometimes I tell them to bring a book in English and I let them read in that spare time. I also sometimes tell them to do the exercise that is coming after the one that we are doing. And then the next one, and the next one, and so on. But there are no different strategies. Just a book.

Interviewer: When they get a chance to read their book, do their colleagues react badly?

I: No, no. They are okay with that.

Interviewer: How different is their linguistic ability in terms of the Common European Framework from the average student in class?

I: B1 probably.

Interviewer: And everybody else is?

I: Its difficult because there is a gap. I have some students that besides the basic introductions they don't really talk in English. If you ask them a direct question they answer, some of them with difficulties as well. But if you ask them to discuss a topic or

describe a picture, they can't do it. So probably the three high ability students are above it but they are very different from the others.

Interviewer: What about their areas of interest? What kind of interests do they have as children?

I: The usual, music and cinema. I think they all do some sort of sport. They also learn languages outside school in a language institute. One of them plays the violin.

Interviewer: What would help you answer these students (the weaker and the stronger students) needs in a more effective way?

I: It's very difficult. We have our book and the exercises are the same for everyone. However, they don't have the same skill and the same abilities. It's very hard. They are 30 so it's very hard when you say "So I will give you 10 minutes to do the exercise" and then 10 of them do the exercise in 2 minutes and the other 20 they need half-hour. It's very hard to do it because you can't be there with all of them. If I had 10 students in class I could be there with them individually but they are all together and that's the most difficult thing, it's the number of students you have in class. If we had different exercises for different levels it could be easier.

Interviewer: The materials are not prepared for that?

I: No. They aren't. We don't have equal levels. There is no different type of exercises in the book.

Interviewer: Do you think groups can be arranged within your class? Do they work in pairs or groups?

I: They work in pairs but as a group it's very difficult. I think I only asked them to work as a group once and they were using the computers. They had to do some research about a famous person but it was a different activity. It's difficult because they are 30.

Interviewer: How about the way you question them - do you use different types of questioning systems or strategies?

I: Yes, yes. For example, for the high ability I ask them to question and for the others I just say the beginning of the sentence and let them complete the sentence. Or just a

simple yes or no question which is easier for them. The high ability can do all of them so it's different.

Interviewer: Would like to have professional development opportunities in the gifted and talented area?

I: Yes, I think it would be nice to do something and to understand better. To have the possibility of building different types of worksheets.

Interviewer: Do you find that you have the time in your working schedule to do that?

I: Yes, I think so. Sometimes I do some courses about other areas and other topics.

Interviewer: What was the last course you did for example?

I: Last year I've done some about the new technologies. I went to another school and we learned about technologies that you can use in your classroom with your students. It was twice a week for two or three months.

Interviewer: It was during class time?

I: No, at the end of the day or on Saturdays.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

TEACHER J

In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analyzed as a whole with the rest of the interviews I perform.

Interviewer: May I ask how old you are?

M: 65.

Interviewer: And where are you from?

M: Coimbra.

Interviewer: Where did you carry out your teacher qualifications?

M: In Germany and Portugal.

Interviewer: How many years of experience do you have?

M: 45.

Interviewer: You are currently teaching Portuguese correct?

M: Yes.

Interviewer: And what grades are you teaching currently?

M: Usually 10th to 12th grade but sometimes because the school struggles to find a teacher to teach Portuguese as a foreign language I also give lessons to younger students who don't speak Portuguese. Because my speciality, that I used to do for many years at Faculdade de Letras was in fact Portuguese as a foreign language.

Interviewer: Did you do any training in the gifted education when you were at the university or afterwards?

M: No.

Interviewer: How many gifted people have you had contact with? This could be family, friends as well as students.

M: So I have already told you about my son that gave me a lot to worry because in Germany (where we were) he was tested to see if he was gifted and at the time it was a big deal and they had very sophisticated schools. Afterwards, we came back to Portugal and it was a big mess because I wanted to continue with this type of school. So, and this was 20 years ago, they got us a school for gifted children in Lisbon.

They told us about a school in Benfica and we went there but it was awful. I thought it was horrible. I thought that he was crazy, he would come home with a different idea every time and we took him out of that school as soon as possible and enrolled him on a “normal” school. He later walked his own path with a lot of ups and downs but his academic path was made in a normal school.

Regarding the students part, I don’t think so. Maybe V I think but D for example, he is very intelligent but the class is so good that he can’t really stand out that much. He is very bright and a kid with a lot of knowledge at a political and social level but really the class is so good that I can’t really see that much of a difference regarding other students.

With V is different. She is a girl that learns very fast, she is well integrated in Portugal, she plays football and so, my observations during class are all related to the colloquial language that she learns from the people whom she plays football with. However, there we can see the ability that she has which how fast she absorbs things.

Interviewer: How do you define and gifted and talented student?

M: I’m thinking about a student, another student who has nothing to do with the two aforementioned students. H I think maybe can also be gifted but I don’t know. He has an absorbing ability out of this world like a sponge really. I explain whatever I need to explain just once and immediately that explanation is used forever. And with this I think it is this ability to apply the theory which H and V both have.

Interviewer: And regarding your son?

M: Yes, it is the same. I think these children are extremely gifted but sometimes in some situations they are precisely the opposite. My son would take sometimes things in a very literal context like for example I would say “Go see if it’s raining” (Portuguese popular saying/expression) and he would actually go check if it was raining.

Interviewer: When were you approached about V or D? Was there any information given to you before you were their teacher?

M: No, no. With D there wasn’t necessary any extraordinary measures because like I said the whole class was already extraordinary.

Interviewer: What about their language learning ability? How are they different from the average student?

M: I don’t go by the book sometimes because I come from 20 years of experience with grown up students at the university while teaching Portuguese as a foreign language so I thought that this was just a continuation of what I’ve done at Faculdade de Letras but it is not. It is a very special audience; the German school is a very special audience. It is not always easy.

M: We have a great number of students who have zero interest in learning Portuguese, because they won’t be here for too long. I have other students whose parents think Portuguese is a 3rd world language and they tell me face-to-face and therefore, there is no need to waste time with that as well and I can totally understand the child’s stance on it. Finally, we have those who I don’t think they even speak Portuguese at home which I think it might be V’s case but she is simply great and knows it. But I don’t believe that her parents are able to do it as well at home but she does.

M: Now, to answer more specifically, the strategies. We have a programme which might not work. Sometimes that programme is not good because it is written by the Ministry or by ourselves in a situation that would be the ideal but the everyday life is different. During the first year I tried to follow the syllabus step by step and it was chaotic so now I adapt it to the needs of the target audience. I have the core that needs to be done but the rest I can do based on what I think they might have interest on.

Interviewer: What about their level of emotional maturity? Do you think they are different from the other students?

M: No. D for example, he is very intelligent but he is also the youngest. I have kids in his class who are 18.

Interviewer: He is 16 years old right?

M: I don't think he has turned 16 yet. So since the others are older it ends up being a toss since they already have 18 years old. What he has in excess he lacks in other things when comparing to those 18-year-old students.

Interviewer: Since they came from Malaysia with a one-year acceleration difference from the rest and if I'm not mistaken but they also got accelerated one year here as well.

M: Yes, yes! It was very easy to spot and it is very interesting. No doubt that he is a very mature kid but since I have 18-year old students there isn't really much to highlight.

Interviewer: In terms of behavioural challenges, are there any with V or D?

M: No, in no way, shape or form. Maybe rarely but V more than D. V sometimes (she is not unpleasant) but you can notice a certain arrogance which doesn't reach an unpleasant level but it is understandable. With D I don't feel that, even though some teachers have that impression from him.

Interviewer: Do they react well to critics? Critics for example towards their work?

M: Yes, yes. I have no problems with that.

Interviewer: And in terms of motivation?

M: That also depends on me. Since I'm much more motivated towards the older-students' themes. D is satisfied and happy with that. However, with V I think she might be slightly bored since I'm also not that much motivated towards the topics that I find for them.

Interviewer: Regarding the Common European Framework, in V's class in which level is she compared to the others?

M: She is without a doubt the best student. They are in a B2 level but V is clearly a C1.

Interviewer: What about D?

M: D has someone who is better than him in languages. D is too mathematical which for a language it is very complicated but P has a gift with words. D is very objective and lacks further development but P can go beyond with the linguistics. D is the best when it comes to knowledge and process of thinking.

Interviewer: Overall D's class is a C1 level?

M: I would say they are all in a C2 level.

Interviewer: What about their particular interests? V's and D's interests? I know that V has football like you and other people have mentioned before but are there any other interests?

M: I haven't found out yet about her other interests. She is very well rounded for a lot of things. We do a lot of debates and she is very conscious of what she needs to do. There was a time where she was the moderator for the pros and cons teams and she did an excellent work but I don't think she really has that interest. She was just very professional and did a good job. While D, he has a set of interests. I would say he has more social and political interests.

Interviewer: He also knows a lot about geography and the world.

M: Yes, yes. And V knows the latest players from Sporting and who was sold and how much were they sold for.

Interviewer: Regarding their work in class when there is a group work, how are the groups done? Which grouping strategies do you use?

M: My strategy is....for D's class its automatic. It usually works really well and I give them a lot of freedom. With V's class is different because it is a complicated class with students who are very complicated themselves. So usually the strategy, which V usually doesn't work, is to put her with a weaker student which on one hand gives her the opportunity to show her knowledge but on another hand its very unpleasant to her because the other student is still doing something when she has already finished a long

time ago. I am always changing strategies. It is a challenge and it gives a lot of work with the 8th grade.

Interviewer: Have you ever had contact with V's parents?

M: No, I don't know them.

Interviewer: They never reached out to you? In a teacher-parents meeting for example?

M: No, they don't need to because everything with V is working just fine therefore, I don't know any of them.

Interviewer: And were you ever approached by V's or D's class teachers about any request from their parents?

M: No, no.

Interviewer: Is there any type of work that V or D do in class that might be different from the rest of the class? Any worksheet or grammar exercise?

M: Not for D. But, for V yes, I do it sometimes with her and regarding grammar exercises I do it for her but also for another 2 or 3 students who also learn very quickly. 2 or 3 of them, including V have a very high level of grammar. With texts I usually don't do any extra with them because we can explore the same text in different ways. We can have students answer in a more developed way and others in a more basic way.

Interviewer: Do you do different worksheets or just different questions or both?

M: Both things. But the tests are all the same, the assessment tests are all the same.

Interviewer: Do you feel that you would like to something different with V?

M: Yes, but I don't get the feeling that she really needs it.

Interviewer: Regarding the different students' needs (not just V's and D's), do you talk with your colleagues about what is needed?

M: Yes, and I'm always asking them about it. I try to adapt other's works or get some tips on how to deal with the younger students.

Interviewer: Would you like to have some professional development in this gifted and talented area?

M: Yes. I would like that. However, I think that this topic is something that annoys the school a bit because the Portuguese teachers have little to no possibilities to develop anything when comparing with the German teachers since they have more offers than us.

Interviewer: Some of the training can be transversal.

M: Yes. But not all Portuguese teachers know German. That is a big issue. It would be nice to have some specific information and data in Portuguese since we don't have as many offers as the German.

Interviewer: Would you like to add something about this topic? Any question or any worries?

M: I think that the teachers, and for example, we have this student that is gifted and another who is the opposite, who has a lot of difficulties in learning and we are not prepared to deal with that. We are not prepared to deal with everything that happens outside of the "normal" box.

Interviewer: And what do you think is our worst enemy? Is it the lack of training during or after university or just the lack of time?

M: I think it is time. There is more and more bureaucracy and we have to do things with more intensity, all of us. Like for example with the 12th grade exam which is extremely complex, not because of the structure but the paperwork for the Ministry afterwards, which all of us have to evaluate. The paperwork that we have to fill for each student and the reports and all of that and we waste so much time, so many hours and it's not productive. I would like to have that time to prepare my lessons.

Interviewer: Thank you for your time and collaboration. This has been an interesting conversation and will solely contribute to my research, I will copy the interview on to paper support and I have one last request as soon as I have it done i will ask you to read the transcript in order to validate the content once again thank you for your time.

TEACHER K

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Interviewer: May I ask how old you are?

J: I'm 42.

Interviewer: Where are you from?

J: I'm from Germany.

Interviewer: Where did you carry out your teaching course?

J: I did it at Leipzig University and one semester in London.

Interviewer: How many years of teaching experience do you have?

J: 14-15 years.

Interviewer: You are currently teaching music and English?

J: That's correct.

Interviewer: And you are teaching grade 8?

J: This year the youngest is 5th grade and it goes up to 11th and 12th grade.

Interviewer: You are also V's class teacher?

J: That's right.

Interviewer: Did you ever do any teacher training in gifted education at University?

J: No, nothing.

Interviewer: And did you do any courses afterwards?

J: No.

Interviewer: In your opinion, how do you define a gifted and talented learner?

J: I would say that they have the ability to see structures and to make connections facts and therefore remember them much faster. They are able, from what I learnt from V, to reconstruct or to construct knowledge and reconstruct it with the information that she gets and also to present the way she finds the information and presents it.

Interviewer: When was the first time that you learnt that V had a different way of approaching her work? Or her studies? Or her analysis?

J: Do you mean how long it took me to realise it? Because nobody told me about her.

Interviewer: So you learned about V because she was accelerated, she is the youngest in her class, at a right now. She was accelerated at a very young age so when you came to this school...

J: She was already there, like a normal student. And you could tell she was younger than the other students.

Interviewer: How did you learn the fact that she had been accelerated? Did she tell you?

J: No. At the primary school there was the class teacher and she told me that she is younger than the other ones and then I looked at her file and searched for her birth date.

Interviewer: What characteristics do you think that they have, the gifted students? In terms of language learning what things do you notice which are different, in the way she absorbs or assimilates in comparison to other students?

J: I don't know if it's her personality but she is not shy. For example, she now speaks Portuguese with the others kids like its normal for her and she is not inhibited. I think she experiments with the languages.

Interviewer: What is her first language? Is she bilingual?

J: Yes. German and I think her mother is Malaysian.

Interviewer: So she speaks Malaysian?

J: I don't know. I think she has some knowledge and can communicate with her grandmother.

Interviewer: Just for the record she speaks Malaysian, German (two different levels of course), English and Portuguese?

J: And French.

Interviewer: In terms of the challenges that she presents to you or other students that you think are very strong or gifted in the classroom, what are their social challenges? How do their classmates see them for example?

J: They notice that she is special. When we have the half term information for the parents they are like "Okay you have got the best one". They know, they accept it and she also knows.

Interviewer: What about in terms of emotional maturity? Is she the same as the other students in the classroom?

J: Yes. She is in puberty. She expresses her puberty moments much stronger.

Interviewer: What about her level of autonomy? How independent do you think she is?

J: Its high. It's extremely high.

Interviewer: And very different from the average learner?

J: Yes, she is able to see the pieces. I think it's the intuition of the information that she wants or needs and she gets it.

Interviewer: In class, when there is some sort of intervention on her behalf how do her peers react to that?

J: Normal, no difference.

Interviewer: And what kind of interventions does she make? Does she ask questions?

J: It's her contribution to the topic, coming up with solutions, its normal. It is on a different level but it is normal and organic. It is not weird or sophisticated, its just age appropriate.

Interviewer: Have you ever had to be in a situation where you had to criticise her for her work? How did she react to that when that happens?

J: She is fine with it. She had a presentation and she chose a topic and it was about California trying to do get independence from the United States and the presentation was okay but there was nothing special about it. I criticised it and she was fine with it. She didn't put much effort to it and she took the consequences.

Interviewer: Was the idea of California coming out of the US hers?

J: She picked the topic.

Interviewer Was this an invention of hers then?

J: No, no. California was actually trying to be independent. She just picked the topic.

Interviewer: In terms of motivation, how is she different from the average student?

J: I have her father here for he asked if could come around. And at home they were talking about school in a more or less negative way so he was concern that she was losing motivation and then I had her and he here and we talked about what we could do to help her or give her more work. With her all seems natural, if you saw her I think you couldn't tell at first sight that's why she is not highly motivated to be the best because it's just easy for her, she doesn't show off but it's just normal.

Two or three years ago we had a situation, we went to the cleaners with her father and there was a lady in front of them, her shirt was missing and she left a telephone number, V memorised the telephone number and he said "how do you know that, did you memorised it on purpose?" and she just said "No, it was just there." I tried not to ask too much but I don't know how she does that. In fifth grade, in music classes we were talking about opera houses. There is a booksheet where I copied some material and we talked

about the Sydney Opera house and then a year later I made the same worksheet with the next fifth grade and the text said the architect was inspired by orange peels. And then we started talking in the class about the opera house and I didn't remember and she said "Yeah the one with the orange peels and I had no memory but she knew! She just absorbs everything you say."

Interviewer: What about her problem solving skills and her creativity?

J: She doesn't give up. She is determined, if she puts her mind to something she goes for it. Like they were writing texts and then she finished and presented it and she could sit there and correct her text without being disturbed by the colleagues, she was just so focussed.

Interviewer: What about areas of interest that she might have?

J: She has a broad variety of things. She can easily be motivated, for example, we went to this trip last year and I took my ukulele and I took my colleague too. M wanted to learn the ukulele and I showed her because it was easy and it was just the basics and V was sitting next to her and she was like "can I try" and during the whole week she picked up out to play the basics. Ukelele is not that complex and she used to have violin lessons but her interests are really wide.

Interviewer: As a teacher, in terms of English learning, following the Common European Framework what kind of ranges do you find in that classroom?

J: I think some are still at A2. Some of them are in the higher B's.

Interviewer: What kind of activities you do with her which are different from the other students?

J: In the beginning, I didn't know how to handle so I gave her extra grammar copies and she would do them without complaining and very easily and then I changed to short stories and easy books and she sat there reading.

Interviewer: So if she finishes work early she often gets short stories to read which is a way that she extends her learning right?

J: Yes.

Interviewer: Do you feel like you have all the materials and didactic resources to respond to these students? And if not, what would you like to have available at school?

J: I don't have the material but with the internet I know where to find it. However, the problem is the lack of time, that is my major problem.

Interviewer: When the classes are being planned do you have to often think about “I know V will finish this faster than everybody else so this way that I can go about it if that happens”. Do you do this? Not just for V but also for other students because we have the other children as well, the weaker students. Is that something systematic?

J: Not systematic. I started to do some research and some reading and I found that there are different ways of giving them support and one of them is going more into depth and the other one is to speed. If she advances even faster, then I'm trying to give her more depth to slow her down.

Interviewer: Can you give any example on how you do that?

J: Its mainly with texts, with literature. More complicated because it's the easiest to prepare. I go through my bookshelf and then I find something and I give her like Adrien Mole and that's like for teenagers and the other students get the sense of humour and the language.

Interviewer: Is there any work that she gets to do based on the stories or is it mostly reading?

J: With those diaries it's like writing something fun and copying the style.

Interviewer: Do you talk with other teachers or colleagues about your concerns, needs and projects for these students?

J: First I talked with her. So I said “your dad is here” and she said she knew and she said “what shall we do?”. I answered “well we have different options and then we named all options for example, her going to a different class of a higher level in the 9th grade.

Interviewer: So that option was given to her?

J: Yes, because I'm also in the position of organising the secondary (terceiro ciclo) as well. The options are this or for example she could do repetitions but she doesn't need the repetition so if I said if you want to you can do to the library and do some research and I can't give you a project, if you want to you can talk to a teacher and do like a thesis or present it. So we made like a long list of possibilities and she picked French so we decided that she would be accelerated in French to work on her own and with the Math teacher she gets more difficult tasks.

Interviewer: How would other students react to her doing different type of work?

J: One or two would be jealous, they would work extra faster to get extra work too. Which is good, it sounds bad but it is perfect. V's best friend works very hard to reach out to her and he would like to be as good as she is. He is a good boy and he is a good student and he is trying.

J: She also wrote a eulogy.

Interviewer: But that wasn't part of the programme right?

J: No, no. But I gave her this task because it fit this little text and the result was amazing. I even asked her to write one for me. It was very much spur of the moment though!

Interviewer: How did the teachers react when you spoke to them about trying to kind of enriching her work?

J: It was very interesting. Because E was on the spot saying "Yes, yes. We should do this". The math teacher, his first reaction was "with me she doesn't show much effort" and I told him "maybe she lost motivation", he is a very good math teacher and then there are two versions of the story about a math competition one is that she didn't enrol in the competition and her father said that the teacher forgot to mention but the teacher said that V didn't want to enter. So he was a bit defensive first.

Interviewer: Do you find V's level of motivation different from last year since you were her teacher?

J: She tries more to blend in. She loses on purpose; she still finishes first but she tries to lose on purpose so the games last longer. But I think its puberty. She has reached puberty

and it is like hiding in her hoodie...And like in the 4th or 5th grade she had like some identity crisis, we didn't spoke about it but it was in music class. We sang this Russian song and I said "Okay we have"- because it was performed in stage and all the Russian girls have that hairstyles with ponytails and buns. And the boys got like a belt, like a big bright belt but she insisted on having one of those belts instead of the buns for the girls.

Interviewer: What happened? Did you give her the belt?

J: Yes, of course.

Interviewer: Would you like to have some sort of development in this gifted and talented area?

J: It is necessary. Because with my position here we see that we put so much effort to help the students who have bad marks and have difficulties and we forget about the others and that is terrible.

Interviewer: Because it is not just about the gifted and talented. There is also the high ability students who need it.

J: There is also another girl in the class, she has great marks and she could need some extra because we focus only on the bad.

Interviewer: In Germany how is this development in gifted and talented students seen? Is there any talk about this? More than you would find in here for example?

J: I can tell from six years ago but I don't remember much.

Interviewer: You were teaching in Germany six years ago?

J: Yes. I came to Portugal in 2011 and before that there was this focus on who needs extra support and not on who is gifted.

Interviewer: Is there anything you would like to add? Anything that you as a teacher would like? Something that would help you help this students?

J: As I mentioned before it is time. Time is really what I need. From what you can find on the internet there are so many good ideas but I have to find them, I have to prepare them and this is the time that I usually don't have.

I also talk to all my students. I invite them once in a while and we have like a conference. What's going well...

Interviewer: Is this a common practise in the school?

J: No, but I enjoy it. It is good for the personal relationship because sometimes I've seen if someone doesn't come to school say three days in a row I know something is going on and we need to talk.

Interviewer: V's has an older brother, he is in the 12th grade and he is also E's student. Is he meant to be gifted as well?

J: He is bright, he is very eloquent and very clever.

Interviewer: But he has not been accelerated like V was?

J: Yes, he turned 16 and they are making fun of him because he is younger.

Interviewer: Thank you for your time and collaboration. This has been an interesting conversation and will solely contribute to my research, I will copy the I interview on to paper support and I have one last request as soon as I have it done will ask you to read the transcript in order to validate the content once again thank you for your time.

TEACHER L

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Interviewer: May I ask how old you are?

L: 62 years old.

Interviewer: Where are you from?

L: I'm from Alentejo. I was born in Odemira, in South Alentejo.

Interviewer: Where did you carry out your teaching degree?

L: It was here, some years ago in Universidade Clássica de Lisboa. It was where I took German and English.

Interviewer: And how many years of teaching experience do you have?

L: 46.

Interviewer: What subjects and grades are you currently teaching?

L: I am teaching only English, 12th grade, so it is already an advanced level. And year 10.

Interviewer: Do you recall doing any training in gifted education either in university or afterwards?

L: Not only in the university. I had teacher training but during all my...-my life I have been doing some training. Not only here in Portugal but abroad as well.

Interviewer: In this training that you had, did you have any training in gifted education specifically?

L: Never.

Interviewer: In your opinion, how many gifted people have you had contact with either in terms of your family, friends or students?

L: Family members maybe three. Students, I really don't remember, but maybe five or six.

Interviewer: What do you perceive to be a gifted and talented student?

L: It is not only linguistically good but also the way, the attitude. So linguistically, cognitively and also the attitude face the language. The way they perceive the language, the way they behave, the language is so familiar to them that sometimes I wonder and I ask them "where have you learn English?" and they answer "Internet". "Have you been in a British class or any of that?" – "No, no. In the Internet". And that is amazing. That's what I perceive as a talented student.

Interviewer: Currently do you have any gifted students in your classes?

L: Yes, I do. They are some, maybe three or four students in year 12 - they are really gifted. In year 10 maybe two or three.

Interviewer: What about any social challenges that these high ability students may have? Any social challenges in the class? How do they relate with the classmates?

L: They have social skills in a way that they help each other and the other students. I think that they interact, they are always ready, if I say: "can you help that one?" they are ready to do that. On the other hand, there are gifted students who are very introverted, they don't say anything and only answer the questions when they are asked for. These are the two types of students that I think I have. There are some that easily interact, that are extroverted. On the other hand, there are those who are a bit shy or introverted, but when you ask them, either orally or written, the way they construct the discourse about everything is amazing. Those are the gifted ones.

Interviewer: In terms of emotional maturity. Do you find them the very strong ones different from the other ones in that way, in terms of maturity for example?

L: Maybe more mature. But, as you see, they are kids. They like to make a little bit of a show, so why not to let those feelings come out in the class, you can get more from them if you allow them to do that.

Interviewer: In terms of autonomy and their independence, how independent are they as regards to the work that they do?

L: They are really independent although, because they are in mixed classes, sometimes they ask for your help: “do you think this is correct?” and so on. They are used to this, they are not the only ones there, there are others, and they have to mix and share everything. That is what I think it is important.

Interviewer: How different is their (the gifted ones) linguistic ability in terms of the Common European Framework from the average student in the 12th grade?

L: In year 12 it was supposed to be B2, I have some students who are B2 or B1+. The average students are B1, because the 9th grade students have to finish with B1. Of course with these gifted students maybe, because some of them are bilingual they can get even a higher grade than B2, but it is not here in our school system.

Interviewer: What about their areas of interest? What kind of interests do they have?

L: I think as teenagers they have interest in their own hobbies, in their own music.

Interviewer: If you think about one or two members of the 10th grade and two members of 12th grade, and if you think of them specifically and their interests for example? ML

L: She has a very good background knowledge in everything and for me M could be already a student only in English in year 12 because every time she talks, every time she writes something we can see that L is not simple those ideas of a teenager, is more. She expands her vocabulary, and she expands her intellectual interests in other things that I would never imagine that someone could and M can do that.

Interviewer: Do you get to see their parents often?

No. Because I am not a class teacher.

Interviewer: What do you think you do differently with students that are very strong versus the ones who are average versus students that are weak?

L: I have sometimes to choose the activities. Sometimes the activities are really elementary, simple so I can get to the weaker students. And I realise from those activities that the gifted ones don't like it much they say: "we have already done that". And if they have already done it, I need to have another task for them just to expand more- Because the first one, they do it in 5/10 minutes.

Interviewer: When you give that extra task, what nature of task is it?

L: Usually are open questions. Written and then they present it orally. There is one of the boys who is so shy that I know that every time he writes his ideas are amazing, but when he speaks-it is different so I prefer to keep with the writing. And other ones, apart from writing I tell them: "no, let's do it now orally, what have you written?" and this is what they are good at, and they expand. I also ask open questions like: "what about this and how about that?". I challenge them with other extra work.

Interviewer: How about the grouping system, is there anything in a particularly way you group them? Or variations on the way that you group them?

L: Sometimes the good ones' work together. On the other hand, I cannot do that so often otherwise the weaker ones would feel intimidated- if I put the first ones the good ones first, they feel a bit intimidated so I have to mix them. That's what I manage to do and that is what our syllabus says we should do. And they have these good students, with their abilities, they know they can help the others and sometimes when they help its really we can see how happy they are because they feel that because they have shared something and achieved something.

Interviewer: Do you feel like you have all the materials and resources to respond to these students? If not what would you like to have available at school?

L: We have all the resources in the classroom although sometimes they don't work. We have an overhead projector, computers, smart board, we have everything, but sometimes – specially on the second floor – things sometimes they don't work and that's why I bring all my own materials: computers, everything. And but I can't demand any more, that's what we have-

Interviewer: Is there anything that you would like for higher ability and stronger students specifically?

L: I haven't thought of that because it's a new perspective and I'm not prepared for that challenge.

Interviewer: Do you get the chance to talk to other teachers and colleagues about concerns, needs or projects for these specifically students?

L: For these specifically students no. Only things in general. We talk maybe more about the weaker students; we draw infinite strategies for those students – sometimes we get nothing – and we forget the other ones' others sometimes. That is my feeling; sometimes we forget that we have to develop the students with higher levels of language.

Interviewer: Would like to have professional development opportunities in the gifted and talented area?

L: Yes, if I have time why not? So that I could learn new strategies and new approaches. Practical approaches because there must be some. But my question is "how am I going to cope with those strategies?" Especially for those in the in classes with 27/28 (students), that's my concern.

Interviewer: What kind of things wouldn't work in situations like that?

L: The classes are too big. 27 or 28... It's a mix, it is like a bag with different levels and to cope with everything is not easy; it's difficult because you know they are kids, they are adolescents, they talk all the time, they are on their mobiles and so on. You have to sometimes prioritize other things.

Interviewer: Would it be worth to look over tips and ideas that are not very time-consuming or costly?

L: Yes, it would be very useful.

Interviewer: Do you have anything to add?

L: No. I think it was very interesting. I'm waiting now for those tips that you are going to give me and I promise I am going to think about what I am going to do with my gifted students.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

TEACHER M

In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

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Interviewer: May I ask how old you are?

I: I am 23 years old.

Interviewer: Where are you from?

I: I'm from Bragança.

Interviewer: Where did you carry out your teaching course?

I: I did my Master's degree at the Universidade de Coimbra, Faculdade de Letras.

Interviewer: How many years of teaching experience do you have?

I: This is my first year.

Interviewer: What are the grades and subjects are you currently teaching?

I: Currently I have two Portuguese language classes both from the 10th grade, four 7th grade classes where I teach Latin and three classes of PLM which is classes for students who are trying to learn Portuguese (with A1, B1 and C1 levels).

Interviewer: When you did your course, was there any preparation or subject that focussed on the gifted education? What about afterwards? Was there any training in this area as well?

I: During my undergraduate (3 years) we had no contact with training focussed on the gifted education. After that, during my Masters since we had a subject called “psicologia e educação” but this subject did not touch upon the topic as well.

Interviewer: In your opinion how many gifted people have you had contact with? Either in your family or friend circle?

I: No.

Interviewer: What about students?

I: Last year, during my internship I believe that there wasn't anyone who was gifted. And since this is my first year, I'm having contact with the students for the first time.

Interviewer: How were you approached about M? Did anybody told you or talked to you about her profile?

I: In October, we have a mid-term meeting to know the classes and to see how are the students performing in classes and it was around that time that I knew about her profile.

Interviewer: Was the word “gifted” used when you were told about her? Or was M introduced in another way?

I: She was firstly introduced as someone with a different ability to understand and to follow the classes and then later it was used the word “gifted”.

Interviewer: In your opinion, how would you define a gifted student?

I: I believe that the gifted student is someone who despite having a set of abilities such as easy understanding and absorbing skills is also very anxious in general. At least that is what I feel from students who display a higher performance during these situations.

I: There are obviously students who study a lot to reach a goal while there are also students who easily achieve it as well and those are the ones that I notice that they have higher anxiety levels.

Interviewer: In terms of language learning (in Portuguese classes), what makes her different from the average students?

I: M is very well integrated in the class. She doesn't feel the need to be different. She is different because when she participates there is a lot of quality in her oral and written skills which make her stand out from the rest. We can clearly see an ability to respond which is much more advanced than the rest. Her ability to respond has a level of autonomy a higher than her peers. In terms of attitudes and behaviour, taking away the part where we are close to the assessment, she is a completely normal student. Well integrated, doesn't show any signs of anxiety, cooperates a lot...

Interviewer: Regarding her relationship with her peers is everything normal then?

I: Yes, completely normal.

Interviewer: What about in terms of emotional maturity?

I: M, for what I can see, she is very stable. She is emotionally stable and calm and so she can pass that to her colleagues. She is very extroverted as well.

Interviewer: What about her autonomy level?

I: She is very autonomous. When comparing to the class she shows a high level of autonomy.

Interviewer: In terms of challenging behaviour, is there any challenge or behaviours from M?

I: No.

Interviewer: How do other students react to M's interventions during the lessons?

I: They react very well. Perhaps because they also like M or because they acknowledge that she is very skilled. They make sure they listen to her and they want to know her what M's opinion is. She has colleagues who like her help and to cooperate with her.

Interviewer: How does she react to criticism? For example, criticism towards her work, how does she react?

I: She has two phases. First she finds it weird, she questions everything. She is not the type of person to just take an answer. She tries to find answers and after agreeing but she tries to find out why is that the way it is and she has to understand it why and what went wrong.

Interviewer: How does she respond to failure?

I: She is a student with a high grade average and on her first test she had a B (Bom) and she got sad. She calculated the grade all over again to make sure that the situation had really happened to her. Then she accepted it and worked harder to reach a higher level again.

Interviewer: Why did she have a lower grade?

I: It was her answer structure. But it was something common in the whole class not just M or just related to her. They were used to a different study methodology and since this is a transitional period. It wasn't in term of content but more at an organisation level of structure. She worked on that and she went up seven points from the first test to the second one.

Interviewer: In terms of motivation, how is she different from the average student?

I: They are all at the same level of motivation. She comes to class motivated to learn and she relates very well with her fellow classmates and that will is shared by her classmates.

Interviewer: What about her cognitive abilities? Are they different from her peers? How are M's problem solving skills and creativity different from the rest of her classmates?

I: It's the fact the she is very autonomous and having a very critical spirit that makes her be the way she is. We had to do some oral presentations and they had to deliver me the dates of their presentations. M was the first one and not only did she gave me the date but she also gave me the topic which was a uncommon one and different from the rest.

Interviewer: And what was the topic she chose?

I: We had the main topic which was satire, and she chose Charlie Chaplin which I was not expecting.

Interviewer: In terms of the Common European Framework, in your class for the Portuguese language level. What are the levels that you have in your class?

I: I would say there is a little bit of everything. M stands out from the rest. She is a C1 level and the majority would be between A2 and B1.

Interviewer: What are M's areas of interest?

I: The part in which I see her more defensive would be in the history part. Literature as well, adding the historic context of things. In terms of grammar and text interpretation she is really good.

Interviewer: What about her vocabulary? Is the vocabulary very easy to distinguish from the rest of her classmates?

I: Yes, it is a bit unique in a positive way. Her vocabulary is diverse.

Interviewer: Have you had any parents meeting yet?

I: Yes, we had one but I didn't get to know M's parents.

Interviewer: What are the strategies that you use in class since you have different levels of Portuguese in your classroom?

I: We can divide well the exercises. I usually ask those who have a higher chance of losing focus to participate. When it's time to consolidate and give a more complete answer I try to ask those who might give a good complete answer or those who might help their fellow classmates.

I: When it's time to read, when it's time to interact I usually try to have the students with more difficulties to participate. In terms of individual work, it's the same, it's never just one or two questions. Its more questions so if some of them take more time to answer, others can move forwards instead of having nothing to do.

Interviewer: Is there any work that M does which might be different from the rest of the other students?

I: If it's not different, she goes faster and continues the exercises. There is no different work but she if she finishes one exercise she continues onto the next one.

Interviewer: What would you like to have to further help M and other stronger students' needs?

I: I would like prepare some exercises (poetry which is what we are doing right now) and have more time to prepare them so they can give the lesson to their fellow classmates. I think M would like it since she has an excellent relationship with the class.

Interviewer: How would you prepare it?

I: I would have to talk with, we would have to meet and prepare things in advance. Going through a stage of motivation to explain how is a lesson given, a stage of pre-reading and a stage of poetry analysis and she would never be alone, it would be 15-20 minutes like a presentation.

Interviewer: In that case M would perform what?

I: She would lead her classmates during the poem analysis. It would be a small poem but I believe she would be able to do it with her peers and I also think it would be a positive experience for everyone.

Interviewer: M was accelerated but let us imagine if she wasn't accelerated how do you think she would be doing?

I: I think she would feel the lack of encouragement or something that would challenge her. I think she fits well in the 10th grade.

Interviewer: Have you had any situation in the classroom where M was doing an exercise with her classmates and you could see her losing interest?

I: No. However, it happened once when she finished earlier but she helped her classmate.

Interviewer: What would you need as teacher to work with gifted and talented students?

I: Maybe, time. Time to go beyond the programme and the book and test them. Give them the challenges that they ask. But mostly time. Once some of the students went on a field trip but M and other students stayed and we did something completely different and they enjoyed it.

Interviewer: This wasn't following the book or the curriculum?

I: No, the topic was related (with the evolution of women) and I brought to the class a story by Lidia Jorge, that talked about the women and M loves those topics. And she enjoyed that class so much that we later talked about the suffragettes and Humanism.

Interviewer: Do you have the chance to talk to your colleagues or other teachers about M or other students who worry you?

I: Yes. We communicate but we usually focus on the negative aspects and try to fix them so what is good continues that well. We just focus on what needs to be improved.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time.

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Interviewer: May I ask how old you are?

L: I'm 56.

Interviewer: And where are you from?

L: From Portugal.

Interviewer: Where did you carry out your teacher training course?

L: Here in Portugal.

Interviewer: How many years of experience do you have?

L: 30 something, I'm never sure. During 3 years I hadn't completed my degree so I started to work in October/November.

Interviewer: What subjects and grades are you currently teaching?

L: English and I haven't taught German for some years but I have a club. So I try to keep the language alive.

Interviewer: And what grades are you teaching?

L: 10th, 11th and 12th grade in English. 12th grade I haven't taught in some years.

Interviewer: Do you recall ever doing any training in gifted education?

L: Not particularly, but sometimes you hear this or that in some sessions but that was not exactly dedicated to gifted children.

Interviewer: Was that during your degree or afterwards?

L: Afterwards. Everything was afterwards.

Interviewer: If you think about your family, friends and students. How many gifted people do you think you've had contact with?

L: I don't think I have ever had contact with gifted people.

Interviewer: How would you define a gifted and talented student?

L: I would separate things. Gifted seems to be something normal that you don't really prepare as a student, it would show up very spontaneous. Someone who is very quick. While talented is somebody who has talent for something, someone who is very good at doing something but implies that you do a lot of preparation and study a lot.

Interviewer: Would you say that you currently have or have had students that might be gifted?

L: I don't think so. This year for example, I'm a tutor in a class and one of the mothers told me something about her son that gave me the idea that he could be a gifted child. But after knowing the child I don't think so. Those children who have some difficulties concentrating and those who don't usually like what most students do in classes and I thought that this might be the case. In English at least the students are usually interested, he participates a lot but he is not that bright as a student.

L: And like a said L, the girl from the other class, she is a quick learner in my opinion. Everything that its new, she carefully writes down and she uses it later on and whenever feedback is needed she has her notes. That means she is very intelligent, she learns quick but just in English and not in all subjects. So again, I don't think she is a gifted student.

Interviewer: Are there any other characteristics that you associate to L?

L: Well she is very polite. She is one of the girls that really, at the beginning of the year I told them if they any doubt to email me, she is the one that emails me in English even if it's just saying "Thank you teacher that was really interesting".

Interviewer: Does she or the children present any social challenges within the classroom?

L: I think gifted children have some problems with relating with each other in class but this is not the case.

Interviewer: What about L's emotional maturity and her level of autonomy?

L: Maybe, when she asked to do comprehension questions. When you are analysing the test. There are those questions you ask just to make sure they understand the language. But then when we start to read between the lines, yes maybe she is different. She is more accurate but there is also she is not the only one. There is also G, he is always something to say but his handwriting is difficult to understand but when he speaks he is very clear and he really gets what the author means.

Interviewer: Do you associate any behaviour challenges to these students?

L: To L, no. She has a good relationship with everyone. But when I think about the boy in 10th grade yes. He doesn't have a good relationship with everybody but he is younger so that might also be a reason.

Interviewer: Regarding criticism when L is criticised how does she react to that?

L: She is very humble, she accepts it and she always tries to improve. For instance, when she does some homework and I don't give a very good feedback and say that you can still improve and do better she will do it.

Interviewer: What about in terms of motivation? Do you find her different from the other students?

L: I don't think so. Once again I usually think that gifted students lose interest very quickly but this is not the case.

Interviewer: Regarding the Common European Framework, within the class, what is the lowest level and the highest level in the class?

L: I would say it would be an A1 for J. J used to be my student two years ago, she failed. Now she did the 10th grade with another teacher and she is my student again but can't speak, she can't build a sentence. And then I have L and T, very fluent but I would say almost a level C. I would say most of them are a B1. The average is B1.

Interviewer: Are L and T different regarding their problem solving and creativity skills?

L: Yes. I challenged L last term to instead of writing a feedback, she writes perfectly so she could do something different. Whenever I approach some topics I invite them to search google for the topic and bring me everything that you may find interesting (a song, a video clip) and it really is interesting. We bring it in class and we work on this. We were working on a sound, she sent me the song "you are beautiful" by Christina Aguilera and I told her she could do some more than just the song, she said "okay" and with no feedback she decided to interview some kids here in school, not just from her class but also from other classes, in English with two questions of what they think about it and she ended the interview by saying "you are beautiful". Even if the students were a bit serious about being interviewed in the end you would see them smile and that was perfect.

L: And she comes to class, she presents it and explains why she did so. I had M, the one who was behind this being a teacher for a day with another student.

L: I had in another class, F also being a teacher for a day. F is a boy who is against feedback, he doesn't like homework but he is good. And I said why am I supposed to give you zero because they have to accomplish the number of feedback I ask them to (two or three feedback per term). If they don't write those two or three feedbacks, they have zero. It's an extra point in your evaluation its 5% and you have all the help you can have(internet), do something and I'll accept it. He said "okay". He found a song, he presented it and his classmates clapped at the end of the presentation and said he looked like a teacher.

L: For this students that behave in a different way, it's not because they are gifted, they are just different. All students are different.

Interviewer: What about any particular areas of interests?

L: They are volunteers (L and M) in the animal shelter. I'm not sure what she wants to do in the future. Her last work was on their future career and she choose something related to psychology. I think it is due to her personality. She likes to help.

Interviewer: What would help you answer these students' needs in a more effective way?

L: I don't know. If I think of what I do; I cannot consider that I have special strategies for them. What I always try to have in mind is that they cannot be demotivated in my class. I keep finding something extra. Whenever they have finished the task. They usually work in pairs so if they have finished, that pair will be assigned a different task to do so they can keep on working. I try to find the hardest exercises among all exercises for students like L.

Interviewer: When you might give them extra work can that also be open-ended questions?

L: Yes, sometimes.

Interviewer: What kind of activities, besides the open-ended questions would you give?

L: To read a bit of grammar and to explain it to the class. I try to make them understand that that is one way to explain something.

I usually don't use the course book. I create my own worksheets. So what do they is they work on the book to try and see if they understand what the book says or to do exercises that appear in the book and then they explain it to the class. Something that the others don't have to do.

Interviewer: So they put it in their own words. They put it in their own words making it a different explanation.

L: Yes, they make it easier. Teachers tend to make it longer, sometimes more difficult to understand. So I always try to avoid that. But I know that if it's a student explaining it things come short so it's easier for weaker students.

Interviewer: What about pair work? Do you have structured pairs already or do you alter them?

L: I vary quite often. I don't like to intervene where they sit. They choose in the very first day and they keep there as long as they wish unless there is something which needs me to intervene or something when I think it's better to pair a stronger student with a weaker student.

Interviewer: Do you think that kind of strategy also helps the stronger student?

L: Having to explain how to another person makes you really understand what you are saying. Cases like L, she didn't learn here at school, she is one of the students that learnt at private institutions and they are very fluent in English it's not learned in school. They don't think about it; they know by heart. It's just spontaneous and because they have to explain they then get the theoretic knowledge.

Interviewer: Since you vary them, when you put two stronger students together, how do you think they do?

L: It depends. If it is a difficult activity I do need two students together. I'll have some people working in some kind of exercises but in terms of interpreting a text for example you might have students interpreting in different ways. They have to interpret and then answer, some students answering true or false questions and others finding evidence. So you see different exercises for different students. And then, to correct, so they work in a group of three or four it depends. Sometimes it's in the moment, it's within the time you have. I want to do a lot of things and if I have them all working at the same time with different tasks everything will be done. And of course silence is needed and so they behave, they take notes and ask questions. Everybody is responsible for the correction.

Interviewer: Do you feel like you have all the materials and didactic resources to respond to these students? If not, what would you like to have available at school?

L: I could always have some help, as you said. I've never had specific training on the gifted area. Maybe I haven't felt that it was necessary because I haven't diagnosed gifted children but it may always appear. In the past, it was easier for us to identify gifted students in class. Nowadays, students are lazy and they don't work much. So when one

student really works and participates in class its great and you may tend to think they are gifted but sometimes they are not. I would definitely like to develop that.

Interviewer: Do you talk to other teachers or colleagues about your concerns?

L: Not much, lately I haven't really talked about it. School life is nowadays, you know, you get involved in so many tasks that there is no time to do what we need to do. Meetings, teachers of English get together to discuss papers, laws and what is important.

Interviewer: As a teacher trainer yourself, it occurred to me that initial teacher training often doesn't include any training on gifted education. However, I wonder if the training should be given or the training would be more worthwhile if given once the teacher as settled in a school into the professional experience.

L: I don't think that they are prepared for that, there are so many fields in which they have to get really prepared that would probably be spoilt. But as you say, once they are at school then yes. It requires a lot of time. If I go back to the first years I couldn't be so sensitive. Nowadays I think about it. I think about all the training I had, post-graduation, my master's degree...It teaches you a lot, it makes you pay attention to the details. Things that in the beginning of the career there is a lot more that you must do.

Interviewer: Is there anything that you would like to add? Any questions that you would like to be answered? Not necessarily by me but in the future?

L: With gifted children there is always one thing that has confused me which is how do you find out you are facing a gifted child.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I will ask you to read the transcript in order to validate the contents. Once again thank you for your time

TEACHER O

In the scope of my thesis, part of my PhD, I aim to identify the teachers' opinions and perceptions about gifted and talented students as well as some of the teaching approaches, inside the classroom. I will guide you through a series of open-ended questions, in order to explore this topic. Your experience and your knowledge in teaching these students is a valuable asset, and I want to thank you for sharing it with me.

I want to ask your permission to record the interview. All that is said will be maintained anonymous – meaning that I will copy the interview to paper support but will maintain the file anonymous.

I also want to ask your permission to use the information that you share with me for data analysis – the source of the data will be anonymous and analyzed as a whole with the rest of the interviews I perform.

Interviewer: May I ask how old you are?

V: Yes of course, 41.

Interviewer: Where are you from?

V: I'm from South Africa.

Interviewer: Where did you carry out your teaching degree?

V: In the University of Setubal.

Interviewer: And how many years of teaching experience do you have?

V: 20.

Interviewer: What subjects and grades are you currently teaching?

V: Currently English from the 5th to the 6th. But it used to be from the 1st to the 6th.

Interviewer: Do you recall doing any training in gifted education either in university or afterwards?

V: During university but it was some kind of work, not practising.

Interviewer: How was it?

V: Teachers would give us subjects and then we had to do some kind of work but only theoretical not practical.

Interviewer: Was it managed for everybody?

V: No, we could choose. So I chose that.

Interviewer: In your opinion, how many gifted people have you had contact with either in terms of your family, friends or students?

V: From the 20 years I've been teaching maybe two students. Family: one.

Interviewer: How do you perceive to be a gifted and talented student?

V: By the way he acts in particular subjects.

Interviewer: You mentioned that G is a gifted. Can you explain a little more how did you first learn about him?

V: Through his father. His father works here with us, he is a friend of mine; he has studied with me back in university so he told me some little things about his son: he didn't tell me he was a gifted, he just told me he learned how to read and speak English on his own. Since I am his English teacher - maybe that's why he told me that. When I met him, I could understand that he's a very gifted student. At school, in the corridors, he never speaks Portuguese to me—he always speaks in English, even outside, when I met him at the shopping centre or something, it is always in English.

Interviewer: And that's not common for a 6th grader, right?

V: No, not even for the 5th and he was my student last year and he did the same thing.

Interviewer: In terms of language learning how do you think G differs from the average learner?

V: In the classroom he learns the same way because I teach the same way, but he quickly understands it (grammar and everything) so he just does the exercises very quickly and then after that if I continue doing the same exercises he probably gets bored – he doesn't say anything – but he gets distracted and he starts opening the book on another page to read something else and I can understand that he already acquired that, he already knows it, so I don't even tell him anything and I let him read whatever he wants to.

Interviewer: What about any social challenges that these high ability students may have? Any social challenges?

V: That is difficult for him because he never plays outside. The kids know that he knows a lot, and some of them - usually the ones that don't know as much as he does - they start making fun of him and when outside they don't play with him directly.

Interviewer: This giftedness that he seems to demonstrate in English class is it transversal in all others subjects?

V: Yes, he has five in all the subjects.

Interviewer: How does he interact with his classmates?

V: Usually I force him. Since last year I do that because every time that the lesson finishes he would stand there trying to talk with me. And I had to tell him: "go and play with your friends; come here "you" and "you", can you take G with you and play with him?" and he usually goes but gets upset. Sometimes he makes an effort because all of the students - especially boys here in the classroom – they play football outside the school, so, during the breaks, they want to play football. He doesn't like to play, he doesn't like activities like that; even his father once told me that sometimes he pushes him to go to the swimming pool, so ok he goes to the swimming pool just a few minutes and then he gives up. Then he wants to go and do some karate but then he gives up. He doesn't like physical activities. He makes an effort sometimes and even tells his father: "ok, I'm going to make an effort and play with my friends" although he doesn't like it. He knows that for being accepted he must play with his mates but he doesn't like it.

Interviewer: In comparison to his colleagues/classmates, what about his emotional maturity?

V: I think he is also suffering from that because he gets isolated a lot and doesn't know how to speak about it, he doesn't speak about his emotions. Even back home I know he doesn't speak to his father but his father knows he is not very well because he looks sad and his father ask him "what do you have?" and he doesn't want to talk about it, he doesn't know how to express his emotions. He should maybe to go to a psychologist to work on his emotions.

Interviewer: How about his level of autonomy?

V: Very good. You give him a task and he does everything on his own.

Interviewer: Are there any behaviour challenges that he demonstrates in class?

V: No, not really. He is very quiet and if he doesn't want to participate, to join or if he is getting bored he just starts reading.

Interviewer: How does he intervene in class?

V: Last year it was very funny: because he is a very good student in English but I also I had other students who were very good; speaking English very well and very fluently. So he would raise his hand very fast, faster than anyone else, to participate, to join in class. Also because I use a mobile app called "Class Dojo" - I give points every time the students participate or do a good task or also give negative points if they are not doing the things correctly; it is kind of a way to evaluate them and they can see the evaluation daily as well as the parents. So he wanted to win all the points.

V: Every time, I wouldn't even finish the question and he was already with his hand up. That went very well for last year: the 5th. This year, most of the students who weren't very good started to make fun of it so he started to participate less. It is a pity.

Interviewer: Do you recall a moment when you had to turn around him and tell him that his work could have been better?

V: No. He has everything correct every time. It is very difficult even in the tests, the written tests and everything, probably has 2% less than 100. But he likes to write me an essay during the weekend about things he likes, things he did; write it in English and give it to me. I usually read it and tell him: "ok, this is not very good, you should write this or this" and sometimes I correct him there.

Interviewer: Do you think it is possible for students to be gifted in one area and not others?

V: Yes, I think so. I know this because I have a teacher here - she is a very good friend of mine - and her son is also a gifted. He didn't make the first year, he just moved on to the second one. I know he was tested and has a high IQ, very high IQ, but only in Science

and Maths. In the other subjects he is not that good and even had problems with his primary teachers.

On the other hand, G doesn't have problems because I think he isolates a little bit. He just switches off and stays there. The other one I think it was more agitated. I also know him and I know he is very talkative while this one is not.

Interviewer: Do you find - G – to be more motivated than the average students in the classroom?

V: In English yes. He likes it a lot. Especially if we have some kind of competition where I can show his skills.

Interviewer: What is the possible level of Common European Framework that G may be in?

V: In a-B2.

Interviewer: And your weaker students? And average students?

V: In this classroom my average students... We have really weak ones and really good ones. I have other ones, maybe 3 or 4, also in B2. A1/A2 for the weakest ones. This is a good class; they also had English since the 3rd grade.

Interviewer: Do you find his cognitive abilities, problem solving and creativity different from the others students?

V: He learns very fast; I don't think there is a problem there. Being creative, if it is with technology, that is his strongest point. He loves everything with technology. There is an app, called Kahoot, it is a game. But you can use it as a game or you can use it to evaluate. I usually use it for the revisions. And today they're going to use it as it was a game and I am going to evaluate if they don't know it. They use their mobile phones or the tablets, we are going to do some revisions. After that they're going to do their own revisions using the Kahoot because they made their own games with the contents I've already taught them, like: present simple, present continuous... and he just loves that. At home he creates his own Kahoots, his own games. In other kind of creation areas I don't know how he works. He is very good at writing; role-play: if he feels comfortable in the

language. because he goes there and represents because you see the way he even interacts if he wants to participate and he always starts like this “Well I think”, always! Because it’s his way and he feels comfortable and has a different level of maturity.

Interviewer: What about their areas of interest? Besides technology.

V: I know he likes films like “Fast and Furious”; he loves that one. He also likes cartoons but not the kid’s cartoons, the more developed ones, maybe those for the grown ups. There is one program called Science of Stupid, he likes it a lot.

Interviewer: Is it easy to talk with his father about how is son is doing?

V: We speak a lot not in terms of contents, because it is not necessary; but because of his concern about his social skills. Sometimes he tells me “something happened today outside the classroom because he was a little bit upset, I know his colleagues made fun of him”. Usually we talk about it a lot.

Interviewer: Does he do anything different from other students in the classroom?

V: He does worksheets very quickly, he participates a lot and they way he starts speaking in the classroom... not all students react badly to that – the ones that are weaker do.

Interviewer: In terms of the work that you give him, is it different from the ones you give to the other students?

V: The work is the same. What I do is: I have lots of small books in English with stories and if he finishes it I can give him one so he can stay there and read it, because that is what he likes, he loves to read – really huge books and everything. But the rest is the same. Why? Because we have 50 minutes lessons, 30 students in the classroom and I have four students with special needs - but not the kind of his needs - and I must be here, and there, and there... because the class don’t have the same level, there are different levels.

Interviewer: How do other students react to him receiving a book to read and they don’t?

V: I have two other who are very good students and they also do the same thing. I have the books there, if they want to, they can pick it up and read it. I try to do the same for

everyone and not make a huge difference because they already know he knows a lot and they sometimes mark him like “ah! He thinks he is very smart” and I don’t want that to happen. Not with him being the stronger or the other ones being the weaker. I try to treat my students the same way. So they won’t see the difference because I don’t think it is good.

Interviewer: Do you think groups can be arranged within your class? Do they work in pairs or groups?

V: Yes, and that is also the difficult part. Because if I say “you are going to do some group work – 3 or 4 people in a group” usually he is left out. He gets left out and sometimes he is around the classroom and I say: “c’mon you must go there and find your own group” and he goes to a group and the other ones say “no”, and when he left they start laughing and giggling and I have to intervene and say “that’s not good, don’t forget you have so many years of school and the same may happen to you and you won’t like it!”.

Interviewer: Do you feel like you have all the materials and resources to respond to these students? If not what would you like to have available at school?

V: We don’t have it. We have a lot of material for the special needs – the weaker students. New books are coming and we have to select them, we have special tests and worksheets... But not gifted students. Because the major concern in schools is: “he is a very good student, great, stay there. But I need to work with this one that doesn’t know that much and he needs to be more or less the same level”.

Interviewer: Do you get the chance to talk to other teachers and colleagues about concerns, needs or projects about G?

V: Yes. During the meetings we talk about how he reacts, how he is in the classroom but we don’t do any kind of work outside or special projects for him. That is why sometimes I ask the parents that have this kind of “why don’t you put him in a special school? Because he is not going to develop here”. It is true, we are concerned with the weaker ones, and we don’t have time for the ones that have good levels or high IQ. It is

something that really bothers me, why doesn't the parent put him in another school? A special school?

Interviewer: Would like to have professional development opportunities in the gifted and talented area?

V: Yes, I'd like that, me and the other colleagues. That is why back at University I chose the subject because it was like "ok, so the student should be at the same level or should we treat him the same way or differently?" But I don't like them to know that I treat them differently but I try because I even tell them we are not all the same and I usually say these in the classroom because there are some students there that don't understand or don't want to understand that some of them are better and others are weaker, they don't like that a lot, they don't understand why I treat them differently. (...) I try to put the students at the same level that is why I give them different things, but they don't like that.

Interviewer: Do you have anything to add?

V: Sometimes I would like to give him more to develop his skills. But I don't want the other ones to see it because I know they would make fun of him and they may say "she is going to give him that" ...They have a group in the "WhatsApp" and they say – because sometimes the father sees the messages – "the English teacher and the Portuguese teacher do different things for G and they treat him different because he is the son of a teacher here at school". So that is why I try not to let them see I am giving him different things because I know he's not very well treated by his colleagues. I sometimes do what other teachers do: I know that he is there, he is reading so let me take care of the others who are weaker. I know I shouldn't do this, I should do something else, but what? Give him an extra worksheet? Maybe it is going to be boring for him. I don't know exactly what kind of things should I give him.

Interviewer: His father has he ever consider accelerating him? And how do you feel about this?

V: I think every parent that has a kid with special needs – because he is also a kid with special needs – doesn't want to see it that way. He wants to think he is a normal kid; that is why he never mentioned it before, we have been teaching together for eight years now

and he never talked to me about his son, he never told me his son was a gifted boy, never. Only when he came to school last year he told me some things: he learned how to read on his own and so on. V: He just tells me G's difficulties on social skills and interaction with the kids. I think he don't want to see that he has a gifted kid and he has to be treated differently (like kids who are weaker). No parent wants to see that or recognize it, I think that is why. I know that, because he (G's father) has also a degree in ITC he gives him (G) something different and he loves that, so he told me "my son already does that at home because I taught him and I told him how to do it" but nothing else, nothing extra. He just lets him be.

Interviewer: You mentioned before that you often go to on field trips together?

V: Yes, outside. For example, last year we went camping with his class and another class – only two classes. It was really difficult for him to interact. He went but he doesn't like those kind of things, we did a lot of water games but he just ran and he hid completely. I remember he hid behind a car that was parked there and I had to go there "G, c'mon, let's go, it will be fun" and he went there but every time the water balloon or something passed through him he would run; in all the activities he was hiding. I remember that he started joining the games when I took my son also to the camping, he was six years old and I remember my son was there playing and I gave him a water gun and I asked G: "Do you want a water gun too? All you have to do, both of you, is just to squeeze the water to the other ones" so he was playing with his colleagues but making it in a way that the other ones weren't watching, he liked that.

That was the way I found to make him interact with the other ones otherwise he would always run. We were there for about three days and during the activities he was hiding all the time or he was with another boy that also doesn't like those kind of things (but he is very good socially) and there they were, the two of them, walking together, alone, without the other ones. Interaction and physical activities are not his strongest point.

Interviewer: Thank you for your collaboration. This has been a very interesting conversation it will certainly contribute to my research. I'm going to copy the interview onto paper support and I have one last request as soon as I have it done I

**will ask you to read the transcript in order to validate the contents. Once again
thank you for your time.**

APPENDIX G

Data Analysis of the Classroom Observation Scale-Revised

Table G1. Means and standard deviations for all items in Curriculum Planning and Delivery

ID		CPD1	CPD2	CPD3	CPD4	CPD5	Sum Row	Mean ID
1		3	2	2	3	0	10	2
2		2	2	2	3	2	11	2,2
3		1	1	1	3	1	7	1,4
4		1	1	1	3	1	7	1,4
5		3	2	2	2	1	10	2
6		1	1	1	3	1	7	1,4
7		2	3	2	2	2	11	2,2
8		3	2	2	1	1	9	1,8
9		3	2	2	2	2	11	2,2
10		1	1	1	1	0	4	0,8
11		3	3	3	2	3	14	2,8
12		3	3	3	3	3	15	3
13		3	3	3	3	3	15	3
14		2	2	2	2	2	10	2
15		2	2	2	2	2	10	2
16		1	1	1	2	1	6	1,2
17		3	3	3	3	3	15	3
18		3	3	3	3	3	15	3
19		2	2	1	3	1	9	1,8
20		2	2	1	2	1	8	1,6
21		2	1	1	3	1	8	1,6
22		1	1	1	2	1	6	1,2
23		3	3	3	1	1	11	2,2
24		1	2	1	0	1	5	1
25		1	1	0	1	1	4	0,8
26		1	1	0	1	1	4	0,8

Valid	26	26	26	26	26
Missing	0	0	0	0	0
Mean	2.04	1.92	1.69	2.15	1.50
Std. Deviation	.871	.796	.928	.881	.906
Sum Col	53	50	44	56	39

Table G2. Means and standard deviations for all items in Accommodations for Individual Differences

ID		AID1	AID2	AID3	AID4	Sum Row	Mean ID
1		2	2	3	0	7	1,75
2		0	3	2	2	7	1,75
3		1	1	3	1	6	1,5
4		1	1	0	2	4	1
5		1	0	1	1	3	0,75
6		1	3	0	1	5	1,25
7		2	2	2	2	8	2
8		1	2	1	1	5	1,25
9		1	1	0	1	3	0,75
10		1	1	0	1	3	0,75
11		2	3	1	2	8	2
12		3	3	3	3	12	3
13		3	3	3	3	12	3
14		1	1	1	0	3	0,75
15		1	0	1	1	3	0,75
16		1	2	1	1	5	1,25
17		2	3	2	2	9	2,25
18		3	3	3	3	12	3
19		1	1	3	0	5	1,25
20		1	1	2	1	5	1,25
21		2	1	1	2	6	1,5
22		2	1	1	2	6	1,5
23		1	1	1	0	3	0,75
24		2	2	2	2	8	2

25		1	1	1	2	5	1,25
26		1	1	1	0	3	0,75
Valid		26	26	26	26		
Missing		0	0	0	0		
Mean		1.46	1.65	1.50	1.38		
Std. Deviation		.761	.977	1.030	.941		
Sum Col		38	43	39	36		

Table G3. Means and standard deviations for all items in Problem Solving

ID		PS1	PS2	PS3	Sum Row	Mean ID
1		2	1	3	6	2,00
2		2	2	2	6	2,00
3		1	3	1	5	1,67
4		1	1	1	3	1,00
5		1	1	1	3	1,00
6		1	0	1	2	0,67
7		2	2	2	6	2,00
8		0	1	2	3	1,00
9		1	1	1	3	1,00
10		0	1	1	2	0,67
11		2	2	3	7	2,33
12		3	3	3	9	3,00
13		3	3	3	9	3,00
14		1	1	1	3	1,00
15		1	1	1	3	1,00
16		1	0	1	2	0,67
17		3	3	3	9	3,00
18		3	3	3	9	3,00
19		1	1	0	2	0,67
20		0	1	0	1	0,33
21		3	3	3	9	3,00
22		2	1	1	4	1,33
23		0	0	0	0	0,00

24		0	0	0	0	0,00
25		1	1	1	3	1,00
26		1	1	0	2	0,67
Valid		26	26	26		
Missing		0	0	0		
Mean		1.38	1.42	1.46		
Std. Deviation		1.023	1.027	1.104		
Sum Col		36	37	38		

Table G4. Means and standard deviations for all items in Critical Research Strategies

ID	Type of school	CRI1	CRI2	CRI3	CRI4	Sum Row	Mean ID
1		3	0	3	0	6	1,5
2		2	2	2	1	7	1,75
3		1	1	1	1	4	1
4		1	1	1	1	4	1
5		1	1	1	1	4	1
6		3	3	1	1	8	2
7		3	2	2	2	9	2,25
8		3	3	1	1	8	2
9		3	1	1	1	6	1,5
10		1	0	1	1	3	0,75
11		3	3	0	0	6	1,5
12		3	3	3	3	12	3
13		3	3	3	3	12	3
14		1	1	1	1	4	1
15		1	1	1	1	4	1
16		1	1	0	1	3	0,75
17		2	2	0	2	6	1,5
18		3	3	3	3	12	3
19		1	2	0	1	4	1
20		3	2	0	3	8	2
21		2	2	0	1	5	1,25
22		1	2	1	1	5	1,25
23		3	0	0	0	3	0,75
24		2	1	1	1	5	1,25
25		2	1	1	1	5	1,25

26		1	1	0	1	3	0,75
Valid		26	26	26	26		
Missing		0	0	0	0		
Mean		2.04	1.62	1.08	1.27		
Std. Deviation		.916	.983	1.017	.874		
Sum Col		53	42	28	33		

Table G5. Means and standard deviations for all items in Creative Thinking Strategies

ID		CRE1	CRE2	CRE3	CRE4	Sum Row	Mean ID
1		3	3	0	3	9	2,25
2		2	3	3	2	10	2,5
3		2	1	1	1	5	1,25
4		1	1	1	1	4	1
5		1	1	1	1	4	1
6		1	1	1	1	4	1
7		2	2	2	3	9	2,25
8		1	1	1	1	4	1
9		1	1	1	1	4	1
10		1	1	1	1	4	1
11		3	1	1	1	6	1,5
12		3	3	3	3	12	3
13		3	3	3	3	12	3
14		1	1	1	1	4	1
15		3	3	1	1	8	2
16		1	0	2	2	5	1,25
17		3	3	3	3	12	3
18		3	3	3	3	12	3
19		2	0	1	1	4	1
20		3	0	2	3	8	2
21		1	1	1	0	3	0,75
22		1	1	1	1	4	1
23		3	2	2	2	9	2,25

24		1	1	3	3	8	2
25		2	1	0	0	3	0,75
26		1	1	0	1	3	0,75
Valid		26	26	26	26		
Missing		0	0	0	0		
Mean		1.88	1.50	1.50	1.65		
Std. Deviation		.909	1.030	.990	1.018		
Sum Col		49	39	39	43		

Table G6. Means and standard deviations for all items in Research Strategies

ID		RS1	RS2	RS3	RS4	RS5	Sum Row	Mean ID
1		3	3	0	0	0	6	1,2
2		3	0	0	0	0	3	0,6
3		0	0	0	0	0	0	0
4		0	0	0	0	0	0	0
5		0	0	0	0	0	0	0
6		0	0	0	0	0	0	0
7		0	0	0	0	0	0	0
8		0	0	0	0	0	0	0
9		3	0	0	0	0	3	0,6
10		0	0	0	0	0	0	0
11		0	0	0	0	0	0	0
12		3	3	0	0	0	6	1,2
13		0	0	0	0	0	0	0
14		0	0	0	0	0	0	0
15		0	0	0	0	0	0	0
16		0	0	0	0	0	0	0
17		3	0	0	0	0	3	0,6
18		0	0	0	0	0	0	0
19		0	0	0	0	0	0	0
20		0	0	0	0	0	0	0
21		0	0	0	0	0	0	0
22		0	0	0	0	0	0	0
23		0	0	0	0	0	0	0

24		0	0	0	0	0	0	0
25		0	0	0	0	0	0	0
26		0	0	0	0	0	0	0
Valid		26	26	26	26	26		
Missing		0	0	0	0	0		
Mean		0.58	0.23	0.00	0.00	0.00		
Std. Deviation		1.206	0.815	0.00	0.00	0.00		
Sum Col		15	6	0	0	0		