

Using WebQuests in Teaching and Learning English as a Foreign Language

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**Relatório de Estágio de Mestrado em Ensino do Inglês no 3º Ciclo do
Ensino Básico e no Ensino Secundário**

Julho, 2021

ACKNOWLEDGEMENTS

Aos professores Rogério Miguel Puga, David Hardisty e Ana Matos pela orientação e pela disponibilidade total prestada.

À equipa e direção do colégio Atlântico, pelo seu apoio e extraordinária cooperação desde o primeiro momento.

Aos colegas Sofia Valente, Luís Almeida e Patrícia Costa pela colaboração prestada durante a prática de ensino supervisionada, bem como na redação do relatório de estágio e por, em momentos decisivos e de diversos modos, me prestarem o seu auxílio.

Aos alunos pelo comportamento exemplar e preciosa colaboração neste projeto.

À minha amiga de longa data Catarina Xavier pela ajuda na fase da revisão.

À minha família por todo o apoio e carinho.

À Rita... por tudo, por ter feito acontecer! Pela infindável paciência, pelo apoio constante, por todas as ideias e pelo precioso auxílio durante todo o processo.

ABSTRACT

WebQuests have become a useful didactic method to explore resources through the use of the Internet, and to guide students in the selection, organization and transformation of information and in the knowledge construction.

This study aims at showing the importance of information technologies in the classroom, particularly the use of WebQuests. A case study was carried out between February and June 2020, focusing on 59 students divided in two classes from different grades: - a 7th grade class with 29 students and a 10th grade class with 30 students. The study focused on how these students handled the use of technologies in the classroom and how they interacted during the WebQuest. Particular attention was given to group work organization in a collaborative and cooperative learning environment and to students' motivation and engagement in their learning and in accomplishing the task. These goals were achieved through class observations, researcher's notes and self- and hetero-assessments.

The findings show that the WebQuest encouraged cooperative and collaborative learning and actively engaged students in the use of technological tools. This was found to be paramount for enhancing students' motivation to learn English as a foreign language. Additionally, the great majority of students recognized the success of their activity and considered the WebQuest a fun, easy and relevant experience in their learning.

All in all, results suggest that WebQuests are an effective methodology to explore the Web's resources and to guide students to learn collaboratively. Furthermore, they also suggest that WebQuests can be used to work outside the classroom. The singular situation caused by the pandemics showed the potential of using technology and WebQuests to teach English as a Foreign Language.

KEYWORDS: WebQuest, information technologies, collaborative and cooperative learning.

RESUMO

A WebQuest tornou-se uma metodologia didática deveras relevante no que diz respeito à exploração de recursos através do uso da Internet e no auxílio dos alunos na seleção, organização e transformação de informação, bem como, na construção do seu próprio conhecimento.

O presente estudo tentará demonstrar a importância das tecnologias de informação na sala de aula, com particular enfoque na utilização de WebQuests. Foi efetuado um estudo entre fevereiro e junho de 2020, que contou com a participação de 59 alunos divididos por duas turmas de dois anos distintos: - uma turma do 7º ano, composta por 29 alunos, e uma turma de 10º ano, com 30 alunos.

O estudo enfocou-se na forma como os alunos encararam o uso de tecnologias na sala de aula e na forma como interagiram durante a aplicação da WebQuest. Foi dada particular atenção à organização do trabalho em grupo, num ambiente colaborativo e cooperativo, bem como à motivação dos alunos e ao empenho nas suas aprendizagens e na conclusão da tarefa. Tais objetivos foram alcançados através da observação de aulas, de notas de pesquisa e auto e heteroavaliação.

Os resultados demonstraram que a metodologia WebQuest encoraja um ensino cooperativo e colaborativo, envolvendo ativamente os alunos na utilização de ferramentas tecnológicas. Estes fatores foram de extrema importância no aumento significativo da motivação dos alunos para aprender Inglês como língua estrangeira. De salientar que a maioria dos estudantes reconheceu o sucesso da atividade e considerou a WebQuest divertida e uma experiência relevante no seu percurso de aprendizagem.

Podemos concluir que os resultados sugerem que a metodologia WebQuest é uma mais valia na exploração dos recursos da *Web* e uma forma de conduzir os alunos a uma experiência colaborativa de ensino e aprendizagem. Não obstante, os resultados sugerem também que a WebQuest pode ser utilizada fora da sala de aula. A situação única causada pela pandemia demonstrou o potencial da tecnologia e da metodologia WebQuest no ensino do Inglês como língua estrangeira.

Palavras-Chave: WebQuest, tecnologias de informação, ensino colaborativo e cooperativo.

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LIST OF ABBREVIATIONS

IT - Information Technologies

WQ - WebQuest

EFL - English as a foreign language

ESL - English as a second language

DR - Doctor

ICT - Information and communications technology

COVID-19 - Coronavirus disease 2019

INTRODUCTION

We are now standing before a technological age in which we are all connected. Moreover, the present crisis revealed the importance of adapting and adjusting our teaching models to the new and demanding reality. Therefore, it is becoming increasingly important to show the relevance of distance learning using technological tools, as technology has been gaining paramount importance within this unprecedented crisis caused by the Coronavirus in which schools were closed and our teaching habits were abruptly modified.

The main objective of this study is focused on the importance of using new information technologies, particularly in the use of the WebQuests (WQs) as a tool to develop classroom work. According to Bernie Dodge, one of the authors and first people to attempt to define and structure this kind of learning activity, a WebQuest is an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet (Dodge 1997, *s.n*). Accordingly, students are allowed to become active explorers in the search for information and knowledge building, as well as in developing group tasks that lead to a dynamic approach of the subjects depicted in English as a Foreign language classes at the 3rd cycle and secondary levels represented in this study. However, when a teacher asks a student to use the Internet to do research, that does not mean that the student is learning something by doing that as the information must be transformed into knowledge. A recent study concluded that using the Internet to access information “may cause people to become one with the cloud, to lose sight of where their own minds end and the mind of the internet begins” (Sparks 2015, *s.n*). Therefore, some authors share the belief that WQs are a form of helping students transforming the information available on the Internet into knowledge, being perhaps a different activity to develop when using IT in the classroom (Hartman 2012, 260).

The use of technology in the classroom is a frequent topic nowadays as it is now more and more crucial for teaching techniques to adapt to present times where the Internet, computers, tablets and mobile phones play such an important part of our students' lives. One of the most pertinent albeit early references showing the growing role of technologies in our society was made by Douglas Rushkoff, in 1997. In his book *Playing the future*, teenagers are called *screenagers*. Also, Tom March, co-author of the WQ, mentions in his Webpage that people have begun referring to

today's students as being Generation Dot Com, due to the Web's relevance and presence in the public's awareness. This became the first generation with access to computers, music downloads, e-mails and mobile phones. Tools such as the computer and the Internet diminished all the other means of information and communication, by picking previous tools and converting them into new structures with unthinkable educational capabilities (Costa 2008, 19).

As Costa suggests, using technology at a global scale allows students to develop their social, reading, writing, communication and cooperative skills through their participation in on-line debates. The main subject of these debates or tasks could be solving a problem or a presentation about a specific item. Going through these specific tasks, students exchange concepts and ideas and can create original presentations based on roleplays (Costa 2008, 22). The use of Information Technologies (IT) allows students to learn by doing instead of listening or observing how to do something, making them memorize their findings. They can create a video or a Podcast advising and presenting real solutions to help dealing with the suggested problem as well.

It would seem that our students like technology and show considerable enthusiasm towards the World Wide Web. Recent studies suggest that today's students, regardless of their social or demographical background, show an interest in using digital tools as a way of learning (Sneed 2016). It is, therefore, essential that students are able to use these different resources, awakening their learning interest. Consequently, it is also important for teachers to reflect upon the use of technology in the classroom and its advantages when teaching any subject. Nonetheless, technology should not be used just because it is available or because students enjoy it. It should be considered as a complement that teachers can use, however taking into consideration student's needs and the syllabus. Particularly in the teaching and learning a foreign language setting, the Internet provides access to a vast world of information to teachers and students. Nevertheless, demography can cause differences in the access to that information, and consequently in digital literacy, since the access to technology, mainly, the Internet, can differ between places. The access to technology seems to be easier in a large city than in small rural areas, in addition, the high costs associated to Internet services are pointed as being responsible for causing differences in digital literacy (*Público* 2020). Digital literacy seems to be important in a

world of *Digital Natives*,¹ and children who do not develop technological expertise will be left behind in the digital revolution. They may also miss out on the secondary benefits of learning technology skills, such as building problem-solving and logic skills, and this will become increasingly important in education and beyond as the workforce will demand new skills as technology evolves (McLaren 2020). Thus, IT can be a powerful tool to help teachers in the classroom motivating students and, in some areas, also to mitigate the demographic differences in digital literacy, avoiding exclusion and preparing learners as equally as possible towards life and digital revolution.

¹ Those who have grown up with technology (Cambridge Dictionary 2020)

SECTION I

THEORETICAL FRAMEWORK

I. 1. WEBQUEST – THE CONCEPT

In 1995, Bernie Dodge, a Professor of Learning Design and Technology (formerly Educational Technology) at San Diego State University, envisioned the use of the internet in the classroom as a tool to help students develop their knowledge, as an essential part in evolving their learning skills. In 1995, he began creating the WebQuest (WQ) concept as a way of helping teachers integrate the use of the Web to assist student learning. Dodge was Tom March's mentor and colleague. As such, they began working together on this project and both developed what was later called WQ. Initially, their focus was on creating sample WQs for teachers and students around the world to use. Bernie Dodge created The WebQuest Page and Tom contributed with some WQs.

Like the name suggests, these are guided activities which require the use of the World Wide Web as a way of finding specific and valid information provided by the teacher, avoiding unreliable resources and which will promote the introduction of many activities. Dodge believes that, this way, students' logical thinking, synthesis and analysis capability will be increased (Dodge 2017). March considers WQs as a learner-centered approach based on the learning input in which some or all the information that learners interact with comes from the Internet, and the attribute of the WQ is to facilitate the transformation of information into a new understanding. Through the use of this activity it is hoped that students are able to develop the ability to search and select reliable information - an essential competence in an global society. March points out that WQs do this in a way that inspires students to see richer thematic relationships, facilitate a contribution to the real world of learning and reflect on their own metacognitive processes (March 2003, *s.n*). He also thinks of them as a scaffolded learning structure where students are asked to brainstorm and list before doing, helping to develop the right mindset, engaging them with the problem, dividing activities into manageable tasks, and direct students' attention to essential aspects of the learning goals. It is comprised of six components, commonly referred to as building blocks which will be presented fully.

The author also points out WQs as a tool to integrate several learning strategies while also making substantial educational use of the Web, therefore, considering them not just good ideas, but essential. They can be divided into a two-part activity: the building up of expertise and the

application of it, in which the key is to create something new that must be substantively new, not merely a new compilation of information or an original agglomerate of unprocessed facts. Perhaps the best way to communicate how WQs support this transformative learning, called transformative Group Process, is through examples. Giving an example retrieved from this report, first, students might ask “How can we deal with the COVID-19 pandemic?”. Potential answers might be found on the Internet, inviting a copy/paste solution. A good WQ is expected to help students use the information they have gained from global examples and apply it to local scenarios, where learners can use what they know and provide solutions to what should be done about this situation among, for instance, their family or friends. A second example of transformative Group Process is to predict future outcomes or effects of the pandemic. When students must base their opinions on evidence from predetermined perspectives (scientist, politician, or student), we know that all group members must contribute to a hypothetical answer instead of copying answers from the Web.

As it will be shown in this report, there is a belief that are many reasons for using the WQ in the classroom (Dodge 2017; Dudeney 2003) and students might not be the only learners who benefit from their use. March says that WQs are equally important to teachers, because they could offer professional development, moving them toward a truly learning-centered practice (March 2003, *s.n*).

I. 1. 1. CHOOSING WEBSITES AND MOTIVATIONAL TASKS

Resources are key aspects within the success of a WQ, they can help motivating students and improve their critical thinking, the websites used should be relevant to make the WQ meaningful. But why use the internet and go to the trouble of creating a WQ, can the learning be achieved without the Web? March trusts that the activities of a WQ should not be all connected with texts and encyclopedias. Accordingly, he believes that, by doing this, the teacher does not make full use of the Web’s full potential (March 2003). Teachers must look for websites that provide interactivity to personalize student learning and to challenge critical thinking, reading, and the synthesis of conflicting opinions. An extremely appealing to the eye WQ is not significant if the resources are not pertinent and useful to the final task. It should provide learners with

information, images and opinion, so that they can pick and choose what is important to their work while engaging students.

The subject of motivation has been one of the focuses of educational research over the first two decades of the 21st century. Bringing together learning and student's motivation is a continuous challenge to educators around the world, because student's motivation influences the educator's work in the classroom. Students regularly do not understand the purpose of their school activities, as they cannot grasp the importance of the subjects in real life situations. March shares the belief that the best way to capture the learner's attention is by choosing a topic of their interest, and then build a challenging task based on that topic (March 2003). A good WQ containing a task that challenges the students will increase their curiosity to search about the subject. Thus, teachers should give the groups a task that requires them to make new meaning, not just to assemble the separate pieces they have learned about. Hence, the fact that many WQs suggest the publishing of the final product, at a Website, a blog, a digital poster, or a podcast, might enhance learners' willingness. The collaborative element that WQs promote by suggesting group work can also be added to the motivational energy that they reflect: problem solving as a group and open-ended questions techniques operate towards activating readers' critical thinking by analyzing, evaluating and synthesizing information from the suggested Web resources, stimulating students by posing contradictions, presenting new information, asking questions and encouraging research. This is considered to be the hardest part, but unless students create new understanding from the information they have acquired, the WQ purpose is not being accomplished, and students can likely complete the task using copy/paste instead of new insights.

While facing a WQ, as in any other tasks, educators have the role to promote this critical thinking to transform the information acquired by the students. Although students are expected to develop autonomous work, the teacher should aid in articulating and debating the topics in a meaningful way, mediating the knowledge in the classroom and keep up with the different paces of students and student groups to help transforming this new understanding. Teachers should be able to understand the learning process and adopt the best strategies to help students (Santos 2012).

I. 2. DESIGNING A WEBQUEST

This section explores the structure which form the WQ, although adaptations were made to the design throughout the years, this study will focus on the original creation. According to Dodge, it is comprised of six components, commonly referred to as building blocks and, when adapted, these different pieces can be used to accomplish a wide range of learning goals. These blocks include an introduction, a task, resources, the process, an evaluation, and a conclusion as described below:

- **Introduction:** Dodge suggests that the introduction should include background information for the WQ. It should have meaning to students, something that they can relate and be interested in. The subject should have global importance with an urgent necessity in finding a solution for the problem, and it should also be fun. The purpose of the introduction is to prepare students and to captivate their interest throughout the WQ (Dodge 1999).
- **Task:** It is an explanation of the upcoming activity. It grasps students' attention to what they must do. It should be something interesting that students have to follow and create to successfully conclude the WQ.
- **Process:** This section provides a step-by-step description of what learners must do to complete the task. Within the process, tasks can be divided into subtasks giving each student an important role in the group, promoting interrelationship and participation of each group member.
- **Resources:** The hyperlinks to the available resources can be found in this section and the teacher should previously approve them. Some authors recommend that these links should be renamed to become more appealing to students and as well as include a short description of its contents (Carvalho, 2002). Although some WQs can encourage students to find other links, it might be easier to suggest the links they should be using as a way to filter the websites students access and to facilitate their research.
- **Assessment:** It mentions how students' work will be assessed. It allows students to acknowledge their responsibilities in developing their learnings. Assessment charts can

become a useful tool because they can be used to distinguish individual performance from group performance. When possible, students should have a role on their assessment and in their colleagues' assessment (Pickett & Dodge 2007).

- **Conclusion:** The conclusion enables students to reflect upon their findings and what they have learned (Dodge 2004). It is a summary of what students should be able to know about the subject at this specific point.

I. 3. USING WEBQUESTS: ADVANTAGES AND DISADVANTAGES

I. 3. 1. WHY ARE WEBQUESTS USEFUL?

The World Wide Web can be a powerful tool inside and outside the classroom, however we may also pinpoint some flaws to it, because the Internet is full of useless (sometimes dangerous) data. Nonetheless, there are good resources, such as news websites from reliable entities and government and academic websites. Students will sometimes try to simplify their tasks by using as many online resources as they can, and the Web is the biggest encyclopedia available, and the easiest to use. In 1998 March concluded that, although an encyclopedia is organized and cross-referenced, the Web is amorphous and chaotic. Still, students would be more likely to respond to its use: “The Web is more like inviting the world itself into your classroom” (March 1998, *s.n.*). Since the end of the 20th century that this quote became reality in most places and with a significant part of the population having access to the web, encyclopedias are no longer used as before. Nevertheless, using the web can still be sometimes chaotic, and it might be important to improve the ability to use information and communication technologies well and help improving students’ digital literacy.

Recent studies show that despite of its educational benefits there is a new gap between those for whom Internet is a more and more diverse and stimulating resource and for whom it still is an occasionally useful resource, but quite less meaningful. The authors suggest that it is necessary to increase training in the use of the World Wide Web for the students as, even if they are able to detect the information weaknesses, showing a basic critical attitude, later they are not able to redirect their searches towards reliable and verified details existing on the Internet. Therefore, the authors point out the importance of using the Internet, ensuring that an improvement of this area among those who lack training is offered, turning the Network into an increasingly safe space and creating social awareness on the importance of Internet security (Pagán et al. 2018).

As March also points out, one of the solutions to manage the chaos was the creation of WQs, which can help students with the skills to navigate rather than surf the Web. Surfing the

Web suggests browsing for pleasure, while navigating suggests trying to locate specific information, March believes WQs might help guiding them to their destination through student-centered and active learning activities (March 1998).

Several studies reveal the effectiveness of the use of WQs in teaching different types of subjects, including Social Sciences, languages such as English, as well as Sciences and Mathematics. For instance, studies on how effective the WQ has been in teaching languages such as English indicate that students taught with WQ had a superior command of vocabulary, as well as other aspects of learning second or foreign languages such as sentence structure and word alignment (Lee & Friedman 2009). Some authors mention that the WQ shows some benefits when compared to a book-based learning, that sometimes still seems to be the tendency when teaching a language. In a foreign language classroom, students sometimes still read texts and learn from teacher-centered classes, adopting, in some cases, a passive attitude. On the other hand, WQs are student-centered and demand students' participation, therefore students can benefit from them, because, more than just reading and remembering ideas, students are encouraged to synthesize, analyze and to assess within cooperative activities, with the purpose of creating a final product or solving a specific task and encouraging higher level thinking skills. They are considered motivating and authentic tasks which encourage learners to view the activities they are doing as something with meaning, leading to more effort, greater concentration and a real interest in task achievement. This can be a greater motivator than course books and other teaching materials. (Dudeney 2003; Amer & El-Okda 2006; Dodge 2017). WQs can also promote an increase of sociocultural competences, since they can include a task-oriented approach, where students begin their own research, depicted by collaboration activities with other group elements, sharing and debating their findings. All group members can then contribute and add something to the final product (Renau & Pesudo 2016). When students take on roles within a cooperative group, they should develop knowhow on a particular aspect or perspective of the topic. According to this approach, each group member has a teacher's role, as well as the roles of investigator and student. By doing this, every student can vigorously contribute to the critical development and completion of the task (Irzawati & Asiah 2013). These collaboration strategies are applied in order to ensure each student's participation; thus, their individual work has a direct impact on the group's final product, with each student's performance contributing to the acquisition of knowledge, but also to the development of competences. Therefore, sharing information, negotiating knowledge and

developing senses between all students are paramount, since teammates count on each other to bring back real expertise and that should inspire and motivate learning. Students' motivation is vital to the success of learning a foreign language, but also for learning in general, as motivated students put more effort and are more alert to make connections, consequently WQs can contribute to enhance students' motivation if they are relevant to their interests.

To create a good WQ teachers should try to present a question that has to be answered using real world solutions based on real world problems and promote the use of real material to work with. By using the internet through the teachers' pre-approved resources and guidance, students can access reliable information, such as databases, and news agencies.

Lastly, the answer or the task can be submitted through e-mail or platforms such as Microsoft Teams for feedback and evaluation. This assessment also stimulates students to do their best and come up with a real group solution, distinguishing the WQ from other assignments students are used to complete.

Notwithstanding, WQs are also a way of encouraging critical knowledge by stimulating comparisons, perspectives and identification of errors, or transforming research into original content. It is desirable that students implement and summarize their knowledge while completing the task. Consequently, students are encouraged to face the tasks foreseeing their importance and enhancing their commitment and strength. As we will see, WQs can also promote respect towards diversity, since different opinions and different approaches are debated and analyzed, contributing to the problems' resolution (Amer & El-Okda 2006). As McNulty recommends (2017), the teacher can rely on Bloom's digital taxonomy (Sneed 2016), as a way of adapting to the present technological needs and developing digital tasks to stimulate student's critical thinking. Through the use of WQs it is desirable that students develop their critical and creative spirit into a final product to present to their classmates. This product can be a film, a podcast, or a presentation (diagrams, charts), and might be important to clarify ideas and constructs. This final product provided by the use of a WQ promotes the development of thinking skills. Against this background, March points out the following:

The question posed to students can not be answered simply by collecting and spitting back information. A WebQuest forces students to transform

information into something else: a cluster that maps out the main issues, a comparison, a hypothesis, a solution, by breaking the task into meaningful “chunks” and asking students to undertake specific sub-tasks (March 1998, *s.n*).

WQs are similarly claimed to be beneficial for ESL/EFL learners, because they include an exposure to authentic materials, meaningful content and possibilities for real communication in the target language when surfing the Web:

Making sense out of the web documents while skimming and scanning websites is a useful exercise for learners to increase their language comprehension. In addition, the problem-solving approach of WebQuests may facilitate language learning (Stoks 2002, 58).

WQs could also be a fruitful source of authentic material and current information, exposing learners to colorful visual elements, by enhancing the flexibility of individual learning pace (Felix, 2001). Therefore, WQs can reinforce learning of the subject matter as well as increase students’ motivation and their interest. Students are required to read authentic texts on the Internet through the use of the WQ, these texts are related to the subject matter and could lead students to get a general understanding of the topic and find relevant information in order to accomplish the provided task.

Against this background, the aim of this research is to expand the current knowledge about the use of WQs to enhance the skills and motivation of EFL students, and to encourage other language teachers to use the WQ in their classrooms. Also, it aims at showing that WQs can still be seen as an adequate EFL learning tool, after twenty years. This will be shown later in this work by the making of two distinct WQs, one at the 3rd cycle, and other at secondary level, trying to show the effect they had on students by promoting motivation, higher order thinking skills, knowledge application, cooperative learning, and scaffolding, all of which, are components that should be established in every learning context (Stoks 2002).

I. 3. 2. LIMITATIONS OF WEBQUESTS

The creation of WQs was intended to optimize the use of the Internet by reducing the amount of time students spent looking or accessing inappropriate resources and the lack of sufficient experience with the research process (Milson 2002). Nevertheless, there are limitations, as it is shown next by various authors across different studies.

We can think that by doing a WQ students are automatically learning and are eager to do it, but that is not always true. Some authors point out that there are some limitations related to the use of WQs that teachers should be aware of. Maddux and Cummings consider that some WQs are just fact-finding exercises that do not engage students in the desired problem-solving situation, or conflict resolution, not encouraging them to a higher order thinking or learning to view problems from multiple perspectives and mention the following:

Simply because a lesson is cast in a WebQuest format is no guarantee that the lesson makes use of cooperative learning, advanced organizers, scaffolding, problem-based learning, nor does it guarantee that these concepts and techniques are effectively, or even merely competently, applied in a way that is consistent with the huge literature base underlying each of them (Maddux & Cummings 2007, 121).

Another disadvantage is that students could be simply copying information from the provided resources and not learning in that process. To avoid that behavior, a WQ should be interesting and appealing to students' needs and that does not happen more often because students are frequently removed from the process of selecting resources on which to base their investigation. There is now more information than teachers, textbooks and the curriculum can allot, and consequently, students need to learn the skills to become information managers themselves. New computer technologies have much to offer teachers and students regarding the enhancement of their information access, use and evaluation skills to encourage more effective and thoughtful information consumption. As current information becomes more and more easily

accessible online, it is also increasingly important that students are given the opportunity to develop their critical analysis capabilities (Mason et al. 2000).

Moreover, in recent years, WQs seem to have been left behind, due to new technological applications. This could be the greatest disadvantage amongst all as the main problem is now that their format and visual display have not changed over the last two decades. Relatedly, Sorcia et al. (2017, 3) mention that “WebQuests began to look dull and unappealing, to the point that they were no longer attractive for new generations of more technology-savvy students”. Therefore, it is desirable for WQs to become more attractive, enhanced with more interactive tools and gadgets relevant for today. Another negative aspect lays on the fact that today’s students are constantly overloaded with information. When going through a WQ the resources, if provided by the teacher, should be easy to consult and the information in it should be straight and brief, because students will quickly lose interest and focus and ultimately give up on the task. Subramaniam (2012) pointed out that students not only lose track of the subject under study due to too much information in the web but also that they lose track out of fatigue from scrolling through web pages in search for relevant information.

Furthermore, it is desirable to improve student’s digital literacy, so that they can be autonomous and learn to select important and valid information and have critical thinking to avoid copying and allowing them to navigate safely through the World Wide Web. Another study conducted to determine the effectiveness of using WQs in teaching environmental studies indicated that 20% of students had difficulties in navigating web pages and 40% of the students searched information unrelated to the area of their study (Chang, Chen & Hsu 2011). It was concluded that, before a WQ was fully implemented, the students should be thoroughly guided on how to browse through web pages, but they also should have additional guidance on how to retrieve and cite the information from a website. This lack of digital literacy capabilities are a reality throughout the globe, another example took place in a Mexican high school, where a study to improve students’ pronunciation and fluency skills through a WQ concluded that, during the first stage of the activity, some students tended to copy and paste from the websites offered in the resources sections, arriving at the following conclusion: “Even though the students had the abilities to use the technology for searching, they lacked the ability to research properly” (Sorcia et al. 2017). Circumstances such as the previous could present an obstacle when implementing a WQ. Many students do not have the determination to do more, others simply do not know what

to do and how to do it and consider that research is copying the information on a website. By doing this, they do not check what the information is about, or whether the whole information is necessary for the assignment at hand.

The frustration for slow or failed Internet access and the language barrier could also determine a WQs' failure. A study presented by Costa show that, during the process, some students had smaller problems related to the WQs, referring that they had problems understanding and learning the subject. A few students also reported some shallow or confusing information, frustration from slow or failed access to the Internet inside and outside the classroom, and lack of mastery of technology use on the part of the teacher. Some students said that they had more doubts by doing the WQ and that it became more difficult to clarify them, saying it was easier for them to understand and learn the subjects with the presence of their teacher. The need for constant approval by the teacher could pose a problem for less autonomous students.

Costa concludes that the disadvantages from using a WQ are related with the necessity students have about the constant validation of their knowledge and findings by the teacher. Although these were very specific cases, knowledge building using the resources provided is clearly a benefit for these students, they showed the need to be constantly followed by their teacher to understand more difficult concepts. Students must trust their capacities and gain autonomy so that the WQ can become more useful (Costa 2008).

WQs can be a powerful tool, but like any other, they should follow some rules to make the most of its resources and capabilities. The examples above show that using WQs without respecting the fundamental principles of their use, could make them just ordinary tasks that students must accomplish with no benefit for them. First, students need to relate and be interested in the task, lastly, they must know how to research properly and to select important information, only then WQs can be useful.

I. 4. COLLABORATIVE AND COOPERATIVE LEARNING

Walberg & Paik (2000) believe that students learn to work as a team when they work in small groups, as they are exposed to criticism and have to deal with planning, controlling and assessing their individual activities and group activities. Cooperative learning has been described as more directive and closely controlled by the teacher, whereas collaborative learning experiences allow delegation of decision-making to students. Veldman & Kostons (2019, 77) state the following:

In cooperative learning within the classroom, teachers set goals for groups of students to work on. The group-based learning activity is carefully organized to promote the participation and learning of (ideally) all group members in a shared undertaking; decisions about what to study, which group compositions, which group activities, and how to evaluate and assess, are predominantly made by the teacher (...)

Collaborative learning experiences allow delegation of decision-making to students – giving students more power than in traditional whole-class instruction. Most collaborative learning activities center on the students' exploration or application of the course material, in contrast to a presentation of explication of it by the teacher.

Cooperative learning can be considered to be more rigid in activities and more directive about how to work together in groups. Collaborative learning is a pedagogy based on the fact that people make meaning together and that this process enriches them. Davidson & Major (2014) refer that in some cooperative learning approaches, group interaction skills are taught explicitly. Similarly, in collaborative learning approaches group interaction skills are mostly not taught explicitly.

Activities such as the WQ are planned to be explored and implemented in groups, suggesting interaction between students and the division of the class into small groups. The success of the groups' work depends on the success of each group member. As such, students have a greater individual responsibility by learning to work as a team.

It is a personal belief that through a WQ students can develop both collaborative and cooperative learning. Students can learn to cooperate and accomplish their role in the group by performing their share of activities. The division of the group's work into different tasks is desirable in the WQs development, turning each group member responsible for its contribution.

Notwithstanding, the teacher could also perform activities which involve a continuous interaction, sharing and negotiating solutions for the works completion and implementing a collaborative approach. There are many ways of doing this, during the making of the WQ, the teacher could ask students to pose questions based on the lecture content to their partners, the responses could be a contribution to solve the WQ. The teacher could also create a debate concerning the WQ's topics, assigning roles within the groups, making students decide which side was the most convincing. The arguments could be used to the final project, for instance a making of a Podcast. The fact that collaborative behavior directly implies group problem-solving, matches the WQ's purpose, since involves students working together to overcome a situation by presenting a problem and providing them some guidance to solve it by supplying resources, having in mind a final outcome or solution.

Against this background we can demonstrate that WQs introduced a new set of student-centered activities that helped the transformation of a teacher-centered education into a student-centered one (Adell, et al. 2015). Even though there are many other ways to do this, and not all classes can be considered as teacher centered, WQs surely contributed to help motivating students by providing new opportunities for teachers to innovate in their classes. It is safe to conclude that by using them students can focus on their own work, increasing their responsibility towards a common goal helping them to become responsible for their own knowledge.

SECTION II

THE PROJECT

II. 1. SCHOOL AND CLASSES' PROFILES

II. 1. 1. THE SCHOOL CONTEXT

This section provides the context in which the teaching practice took place. Accordingly, it will start by describing the school, its location as well as describe its population and mission. Then, it will explain the target groups of the intervention.

The internship took place in a private school called Colégio Atlântico in Pinhal de Frades, Seixal, district of Setúbal. It is a very calm area, except for rush hours. There are buses nearby, but the majority of the students come to school by car with their parents and some students use the school minibus. This school was founded in 1986 as a nursery, and presently has 1500 students, from kindergarten to secondary school.

The school premises are well kept with many playgrounds for each cycle, as well as recreational areas for rainy days. As for other facilities, there are two canteens, a library for each cycle, a gymnasium, a football field, a tennis court, a greenhouse, laboratories, a pool and a theater. Although the first cycle building is older, the other cycles have recent premises, and all provide good conditions for students and teachers to work in. This is a technological school: every day, students make use of the Internet and tablets to do their schoolwork, as well as their research and projects. Students' books are digital from 5th grade. All classrooms are equipped with computers, and projectors, as well as wi-fi to help students with their research. This background was a key aspect when it came to choosing the subject for the internship report. Moreover, students always work in groups, promoting dialogue and critical thinking.

Although it is a private institution, its mission is to ensure that children have access to quality basic education throughout the three cycles of schooling, regardless of their backgrounds or impairments. The bond established with each child throughout the three cycles of schooling facilitates the school's social and educational intervention.

This school aims to provide pedagogical innovation framed within the so-called Curriculum Targets established by the “Direção Geral de Educação” of the Ministry of Education. Its educational project aims at creating an open school to the society and to the world's permanent

evolution based on a student-centered model where humanitarianism, solidarity and citizenship values are always present. For the future and having in mind the school's slogan "Come here, go anywhere", an exponential growth is expected in protocols with schools around the world as a part of the Erasmus and International Baccalaureate programs available in Colégio Atlântico.

II. 1. 2. CLASS PROFILE – 7TH D

There are twenty-nine students in class (eleven to fourteen years old): sixteen boys and thirteen girls. The majority of the students are in this school since kindergarten. A great amount of time was spent getting to know this group, being absolutely essential in the preparation of the didactic unit of the teaching practice, not only in terms of the students' characteristics such as personality traits, learning needs and preferences, but also in the way the students worked as a group. There are five new students coming from other schools (three of them from the same school). There is a French student that enrolled in this school last year but, although he was born in France, he speaks Portuguese fluently. He has fitted well since he knows the school and the students from last year. There is also a student repeating the 7th grade. The remaining students are attending the 7th grade for the first time along with their class tutor, the English and Portuguese teacher Sofia Diniz Valente, who supervised the internship.

The students belong to a medium-high socioeconomic group and live at a short/medium distance from school and showed good communicative skills, as well as dedication, kindness and politeness, revealing a satisfactory workflow, as well as a good knowledge acquisition, showing interest in learning, and in doing their tasks independently. Even so, some students tended to get distracted and lose track of what was being said and of they were required to do.

As far as their household is concerned, most students live with both parents, but some students' parents are divorced and the great majority of students choose their room to study and reveal some autonomous study habits. A few students, on the other hand, confess being helped at home and study only before the tests.

In their free time, students mention they like playing computer games, surfing the internet, watching television, listening to music, reading and doing sports. Their favorite music styles are mostly *pop* and *hip-hop*, although some students like *rock*.

The great majority of students say they want to attend university and like being in this school. They mention they enjoy it not just as a learning space, but also as a place to grow and socialize. All the teachers in this school play an important role creating a relationship with the learning-teaching process. The students show a good level of interest in class as well as good participation skills. Still, they should improve their behavior in the classroom as the classes are often interrupted, affecting overall concentration. However, all students have a good relationship with each other and spend a great part of their time between classes together.

II. 1. 3. CLASS PROFILE – 10TH A

Due to the Pandemic it was not possible to spend time to get to know the students. All the process of teaching was made online, so the amount of time spent with the class was different from the 7th grade, but also would be impossible without technology.

There are thirty students (fifteen and sixteen years old): twenty-two boys and eight girls. Most students are in this school since kindergarten, although in different classes. They belong to a medium-high socioeconomic group and live at a short/medium distance from school and showed good communicative skills, as well as dedication, kindness and politeness, revealing an excellent workflow, as well as a good knowledge acquisition, showing interest in learning, and in doing their tasks.

As far as their household is concerned, the majority of the students live with both parents, but some students' parents are divorced. In their free time, students enjoy playing computer games, surfing the internet, watching television, listening to music, reading and doing sports. The great majority of students say they want to attend university and like being in this school, referring that it is not just a learning space but a place to grow and socialize. This group of students shows a good level of interest and also good participation skills. All students have a good relationship with each other and spend a great part of their time between classes together.

II. 2. STRATEGIES AND APPROACHES

This research was settled according to the technological resources available in Colégio Atlântico, that enabled the development of this study and eased the topic's choice for the final report. This school provides students and teachers with a vast array of technological tools that made easier to develop a project concerning technology. The first idea was to create a set of activities based on IT that could show its importance to motivate students' interest and that may help to improve their academic results. Although in this school students deal with technology in a daily basis, the idea was to show the importance of specific activities such as WQs, and how can they be a contribute to help with collaborative and cooperative learning.

In the 7th grade students approached the subject *Gadgets and technology* from their student's book Unit 7, in February 2020. The main aim for the WQ was to use this unit to develop seven lessons of sixty minutes in which students were able to define the term technology while debating and sharing important ideas using interactive exercises and videos, as we will see below.

This research was developed having in mind a plan with diverse objectives, contents and strategies according to the different students. Bearing in mind the ecological footprint of this project, the use of disposable materials, such as paper or printings, was avoided. The study was developed according to the school syllabus, and the National curriculum, specifically units 7 and 9, on the 7th grade, and Unit 9 on the 10th grade. Students used *Think Presentation Plus Level 1* and *Think Presentation Plus Level 4*, respectively, as their school handbooks. These handbooks are digital, and students access them on their tablets.

So as to design different and sustainable approaches, on the 7th grade, the research for materials lead to the use of educational videos, as well as images in the shape of paintings concerning the dangers of technology. Students were expected to enhance their critical thinking creating a debate in the classroom towards the extended use of technologies. During this experience, 7th grade students worked using Units 7 and 9. Although this WQ focused on Unit 7, Unit 9 had to be taught differently and adapted due to the pandemic, as by that time schools had been closed. This situation provided the opportunity to try different approaches and resources based on technology.

On Unit 7, lesson 1, students were challenged to express their ideas about the paintings they were observing (see Appendix 1) and then asked to read a text concerning teenagers and technology as well as giving their opinion while answering to some questions in small groups (see Appendix 2). The main objective was to encourage a debate between students where they had the opportunity to share their ideas and opinions on a subject of their interest. Technology played an important role whilst preparing the lesson, as well as contributing to reduce the use of paper, as students had to use a worksheet available online in the Microsoft Teams app. Although this group of students uses technology every day, it was expected that the WQ could increase their interest.

On lesson 2, a video link was shared in Microsoft Teams and students were asked to work in pairs and look up for examples of *have to*, *must*, *mustn't* and *should* (see Appendix 3). Students had then to give some examples of advice, obligation and prohibition retrieved from the video. This also encouraged a debate concerning the video and the new grammar topics that students were going to learn. At this moment a link to a worksheet was provided through the Microsoft platform. This worksheet was adapted to a Google Form as a way of using technology to answer the exercises (see Appendices 4 and 5). The use of Google Forms enables teachers to save time and provides students with easy and quick access to results. It also offers a way to assess students, avoiding paper while they enjoy themselves using technology. The WQ requires the use of the internet and computers, so educators must bear in mind the resources they have available to fulfill the tasks like the ones explored above.

Following the introduction to the new subject and grammar, the third lesson was dedicated to getting acquainted with the WQ and explaining the tasks that students had to develop. The main objective for this WQ was to build a digital poster containing information about different types of technology and to increase students' awareness and encourage the use of ICT skills in the teaching-learning process. It is important to highlight that at this point all students had access to the internet and their own tablets, which simplified the sharing of the WQ to each student through a link which led them to the Website. The class was divided into groups and the subjects were randomly distributed, so that students could explore all the important

information and start the work to complete their tasks within the next three lessons. Lessons number six and seven were dedicated to the presentations of the digital posters.²

As far as Unit 9 is concerned, technology was part of the lesson plan from the beginning, therefore, there were no adaptations to made. This unit addresses weather and natural disasters, and teachers and students gathered online, while some texts related to these subjects were handed over to them via Microsoft Teams. Additionally, an educational video focusing on superlative adjectives was withdrawn from YouTube (see Appendix 6 and Appendix 7). Students had permanent teacher support during class via Microsoft Teams and were encouraged to share their doubts by using the chat or throughout a video call. At the end of the Unit, there were also some exercises for practicing through the game platform Kahoot. This served to motivate students to learn and study whilst playing a game and challenging their friends (see Appendix 8).

Due to the COVID-19 Pandemic, on the 10th grade the approach had to be different. As all schools were suddenly forced to close, the classes had to be planned for online teaching. Thus, as this part of the internship was fully planned during the lockdown, the classes did not have to be adjusted to online teaching.

Bearing in mind the importance of citizenship values and real-life situations, a plan was shaped to foster debate and increase students' linguistic and socio-affective skills while helping them deal with this abrupt new reality. For this project, websites with relevant COVID-19 information were used. The main aim was to contribute to the enhancement of students' behavior and citizenship values, guiding them through familiar real-life situations. These approaches promote inclusion and foster mutual assistance, providing students with greater linguistic, cognitive and socio-affective skills.

Taking into consideration the syllabus for the 10th grade, the main idea was to relate Unit 9 from the students' handbooks with the recent COVID-19 pandemic, as the main topic was giving advice and changing behaviors. The task had the maximum length of two weeks, over which students were guided and encouraged to participate in videoconferences. They were also asked to take part in the correction of the interactive grammar exercises from their workbooks and post

² The WQs will be subject of closer analysis in the next chapter where all details and students' feedback will be presented and discussed (see page 26).

them to Microsoft Teams platform (see Appendix 9 and Appendix 10). The main objective for the 10th grade WQ was to create a podcast or a video advising different people in different situations on how to deal with the pandemic. The class was divided into groups and the subjects were handed to each group while students were guided throughout the WQ. Videos and audios were then submitted on the Microsoft Teams platform.

II. 2. 1. SUBJECTS

In the 7th grade, students approached the subject concerning the unit *The easy life*, (student's book Unit 7). This unit focused on the importance of technology and how can it help improving our lives. The main aims for the students in this WQ were:

- To define the term *Technology*
- To debate and share important ideas
- To describe gadgets
- To analyze important tools
- To be aware of the importance of technology in our daily lives
- To explore a WebQuest
- To search and summarize important information concerning different technologies
- To search and summarize important information using ICT skills
- To participate in group activities
- To complete a task using a WebQuest
- To assess other students' interest in the activity.

In the 10th grade, students approached the subject concerning the unit *Be your own life coach*, (student's book Unit 10). This unit focused on students giving advice to others and dealing and solving difficult situations. As schools were closed and COVID-19 was becoming a significant part of our lives, the WQ was designed to connect Unit 10 to the Coronavirus crisis. Students were asked to give advice and to present solutions concerning specific situations related to the Pandemic.

The WQ was implemented for two weeks³, supported with weekly online sessions where students were able to ask questions and share their thoughts. The teacher was available during the time span in which the project took place through Microsoft Teams. The main aims for the students in this WQ were:

- To debate and share important ideas
- To give advice and opinions
- To analyze important resources
- To consolidate the use of the internet as a means of understanding and researching specific contents
- To explore a WebQuest
- To search and summarize important information concerning COVID-19
- To search and summarize important information using ICT skills
- To participate in group activities
- To complete a task using a WebQuest

³ The Colégio Atlântico decided that, during the lockdown, classes should be quantified by weekly blocks instead of lessons. So, each teacher had a two-three hour block with each class per week. Students were advised to complete the tasks and to approach teachers if they had any questions.

II. 3. THE WEBQUESTS – PLANNING AND ORGANIZATION

It is claimed that using WQs helps students build their own knowledge, providing a new vision that encourages them towards self-learning. To prove it, several activities were developed using technology, and it is worth emphasizing that Microsoft Teams was a primary tool during the internship. It is used in Colégio Atlântico, since 2017, not only to share tasks and important information but also as means of communication between teachers and students. Several activities were developed on this platform, through links of videos for students to comment on, interactive games like Kahoot, and audio recordings asking students to describe technology-related topics and its use. It is my belief that all 7th grade students' positive engagement shown during the WQ was influenced by the self- and hetero-assessment that they were required to do at the end. Knowing they would be doing this led to an overall increase in their partaking. Process and product were assessed creatively, but also systematically through the use of Google Forms, a tool that learners had to use recurrently, and which proved to be a reliable material later on throughout the quarantine.

II. 3. 1. THE GADGETS AND TECHNOLOGY WEBQUEST

The Gadgets and Technology WQ was implemented between December 2019 and February 2020 and was developed through a website called Webnode. It provides all the tools needed to create a WQ, since it is a free website generator. The creation of a new WQ instead of using a link to a WQ site was decided, because the teacher wanted to create something original and authentic to the students. As soon as the WQ website was concluded the link <https://technology312.webnode.pt/> was shared with the 7th grade students through Microsoft Teams.

Introduction

According to Dodge (1997), the first section of a WQ should be the introductory page. In this section students are shown a welcome screen to the project which can then be combined with the introduction section.

Figure 1 shows the presentation page for the Gadgets and Technology WQ. Here, students have the teacher's e-mail in case they need to ask any questions while developing their work outside the classroom and get feedback immediately. Similarly, students have a short introduction about what the WQ will be addressing as well as the maximum length of the activity.

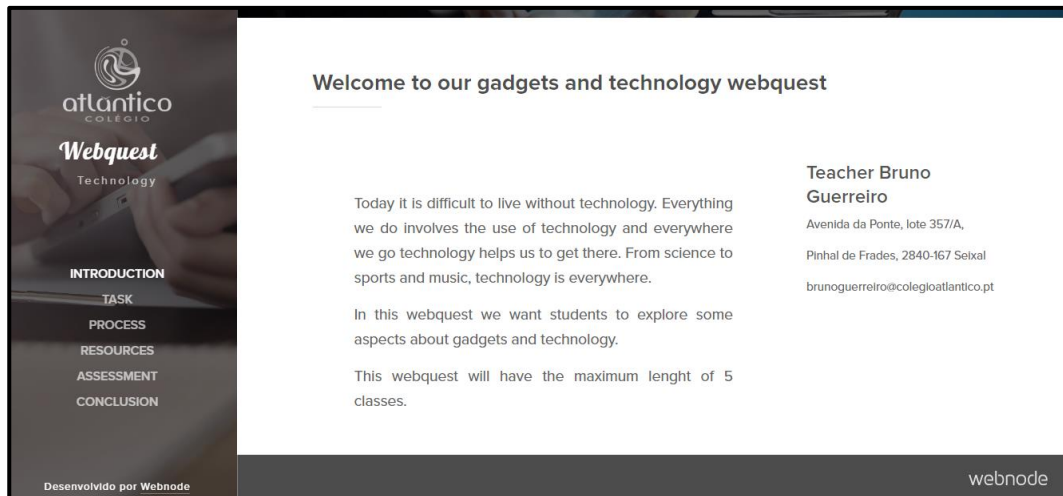


Figure 1. Introduction of the Gadgets and Technology WebQuest.

Task

Within this section, students get to know their specific roles. Then, the main objective for the WQ is presented: To create a digital poster with information about technology, its gadgets and tools. The task tab also includes the topics each group must work on in their digital posters. Whilst using this technique, the teacher can divide the class and assign the subjects each group is going to work on.

This section of the WQ was designed using a simple layout. It also showed little information concerning the activities because they were clarified in the procedures section.

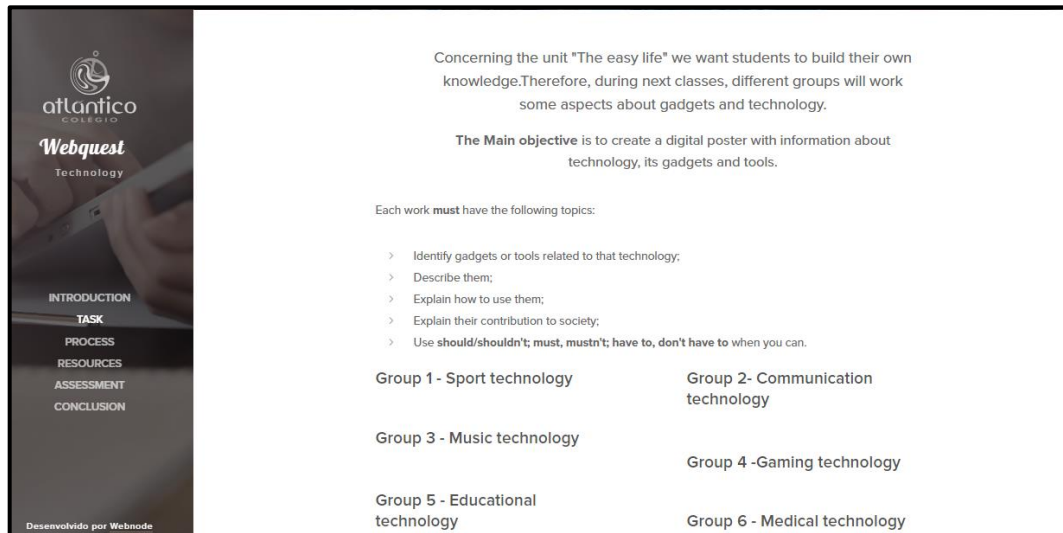


Figure 2. Task section of the Gadgets and Technology WebQuest.

Process

This section describes the main steps students must follow to accomplish the task. It was very important to keep instructions simple, clear and understandable. Visually, it was also desirable that both the WQ and the main steps were attractive, clean and simple to follow as well as relatable to students' reality. The main steps are:

- 1- Check the group and the topic you will be working with;
- 2- Check for important information under resources;
- 3- Study and do a summary about the information you collected;
- 4- Create a digital poster with the information you collected;
- 5- Prepare and do a presentation;
- 6- Evaluate yourself, the presentations and the groups.

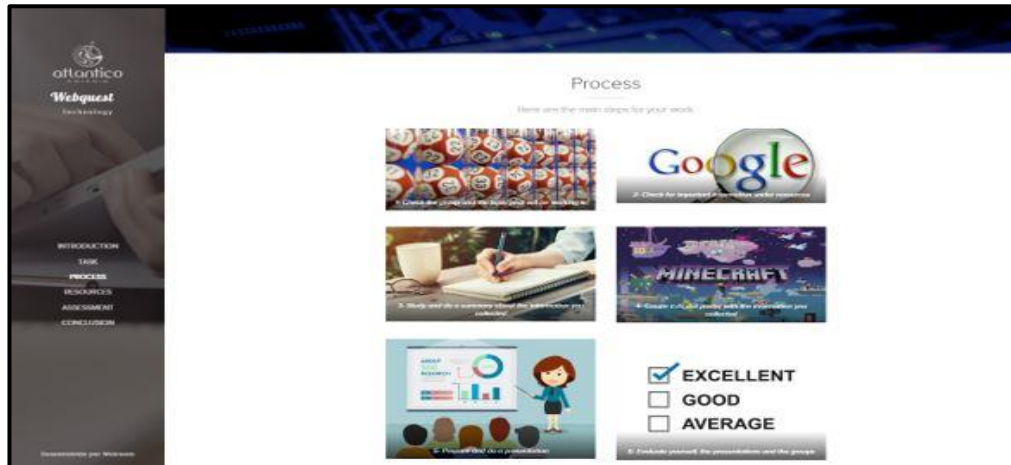


Figure 3. Process section of the Gadgets and Technology WebQuest.

Resources

The resources section is where students receive the information needed to complete the project. The hyperlinks to the websites were available here and all the materials were pre-approved and checked by the teacher. The teacher decided not to consider students' input in the websites used, although it can be allowed. Sites of their own choosing may cause distraction from the WQ's main objective. After the groups were formed, each student should then consult the links according to their group number and select the information which may seem important for the task's completion. Figure 4 provides the reader with the resources below.

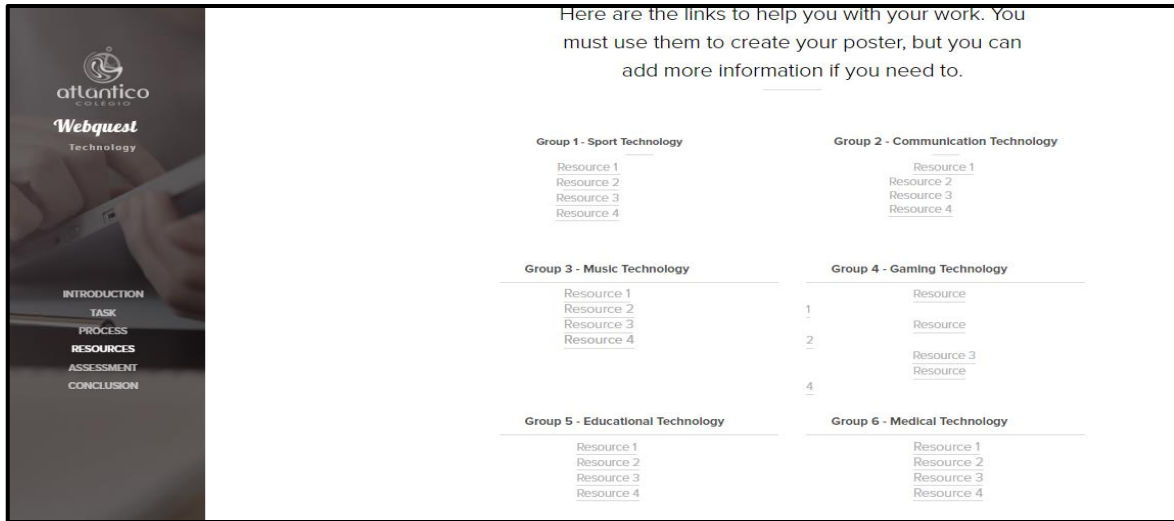


Figure 4. Resources section of the Gadgets and Technology WebQuest.

Assessment

The evaluation section of a WQ is crucial, since it provides students with all the information about how they will be assessed. Students pay more attention to the tasks when they know they are being assessed. As such, this section should be specific and detailed. Two Google forms (see Appendix 11) were created to help students assess their work and their group's work. Students also had the opportunity to assess their classmates' digital posters. These different types of assessments were expected to encourage students to put more effort into their tasks, as well as to create a competitive environment between groups and students, pushing them into being more engaged in the WQ. The assessment used Portuguese as it was considered it was imperative students completely understood what they were doing and to simplify the process. It was done anonymously to avoid influence from other members.

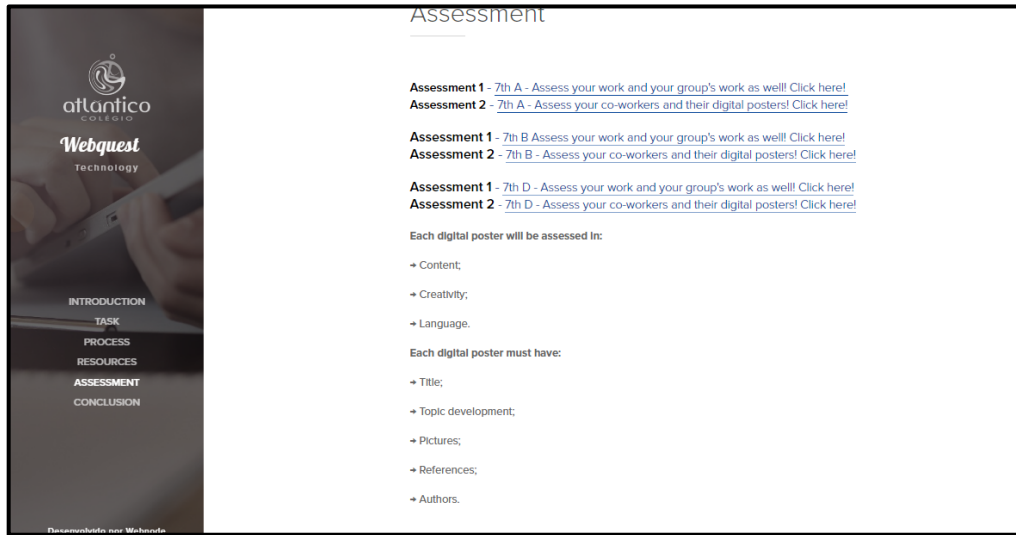


Figure 5. Assessment section of the Gadgets and Technology WebQuest.

Conclusion

The final section of a WebQuest is a general wrap-up of the project. It contains some final remarks for the students. In this section, students were told what they should have learned with the process. Some final suggestions to students were also provided, as shown in Figure 6.

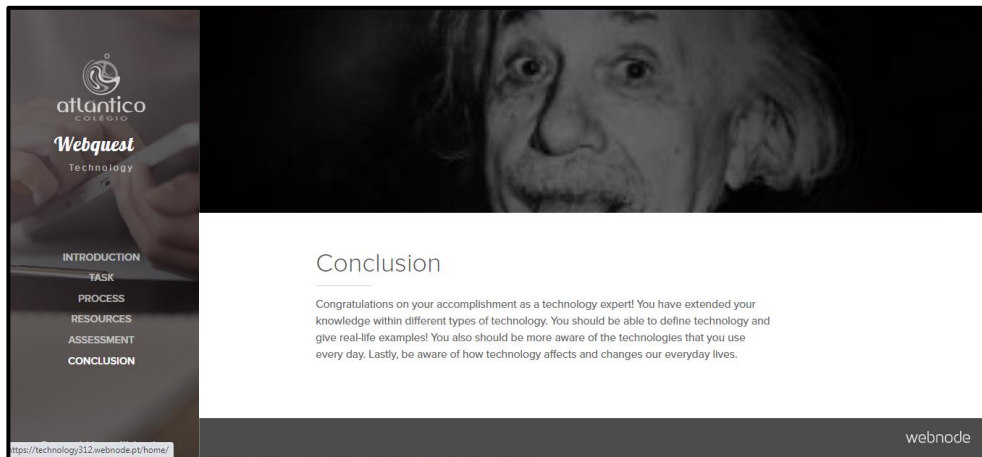


Figure 6. Conclusion section of the Gadgets and Technology WebQuest.

II. 3. 2. COVID-19: COPING WITH THE CRISIS

The COVID-19: Coping with the crisis WQ was implemented between May and June 2020 (10th grade). As for the previous WQ, the website used to create this WQ was Webnode. Unlike the 7th grade, this part of the internship was entirely done online, since from this point onwards, all schools were closed due to the pandemic. When the WQ website was concluded the link <https://covid-19-coping-with-the-crisis.webnode.pt/residentes/> was shared with the 10th grade students through their Microsoft Teams page.

Introduction

Figure 7 shows the presentation for the WQ: COVID-19: Coping with the crisis. The layout was similar to the one used in the 7th grade. Students were given a short introduction about what the WQ was going to approach as well as the maximum length of the activity. Students could also contact the teacher by using the teacher's e-mail in case they had any questions.

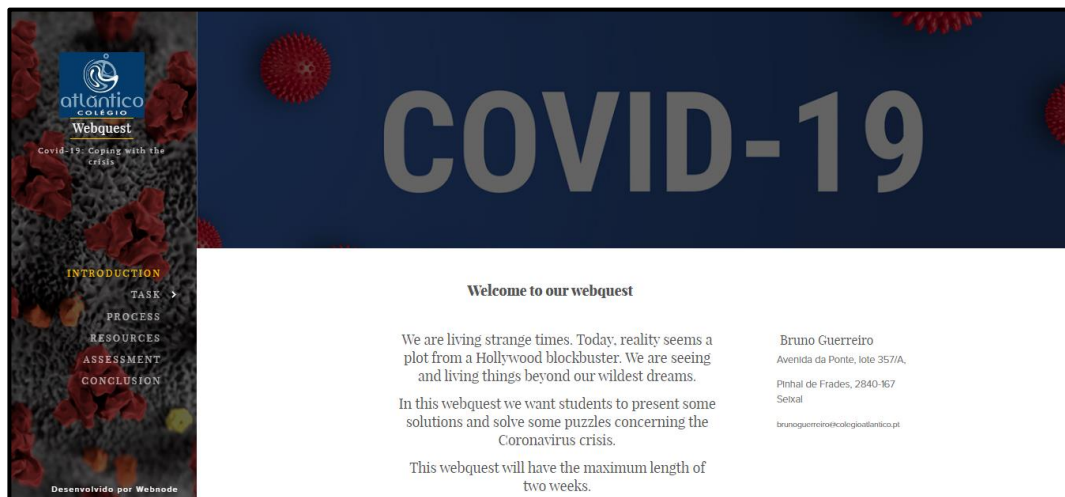


Figure 7. Introduction of the COVID-19: Coping with the crisis.

Task

In this stage students were presented with their specific roles, as well as the main objective of the WQ: Create a video or a podcast advising and presenting real solutions to help dealing with the pandemic, answering to the posed questions. The task tab also included the topics each group had to work on and the different groups.

The layout was simple and clean, easy to read and understand, allowing students to work quickly on a solution.

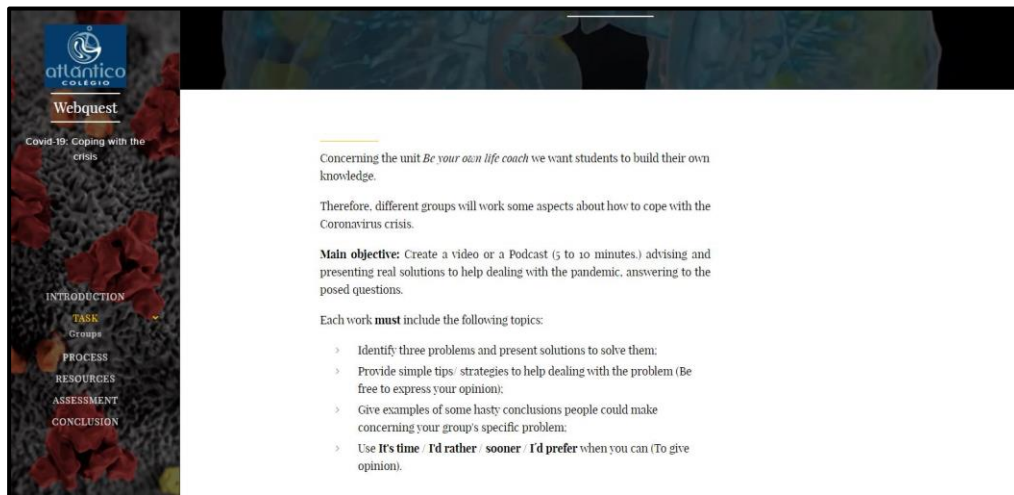


Figure 8. Task section of the COVID-19: Coping with the crisis.

Process

This section of the WQ describes the main steps students must follow to accomplish the task. The instructions here were simple, clear and visually appealing to students. The objective was to simplify their work.

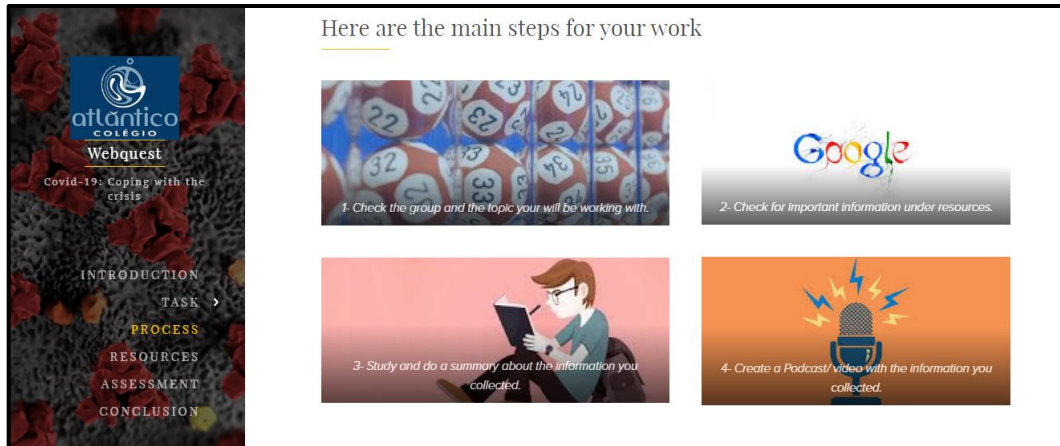


Figure 9. Process section of the COVID-19: Coping with the crisis.

Resources

The resources section is where students are given all the information to complete the project. The hyperlinks to the websites and posters are available here and all the materials were pre-approved and checked by the teacher. As this WQ was prepared specifically for 10th grade students they were allowed to do further research if they felt they needed to do so. The teacher told students they could search for extra information if they felt they needed it to improve their work. At the end students said they did not search for more resources since they felt they had enough information, as stated below in the results section.

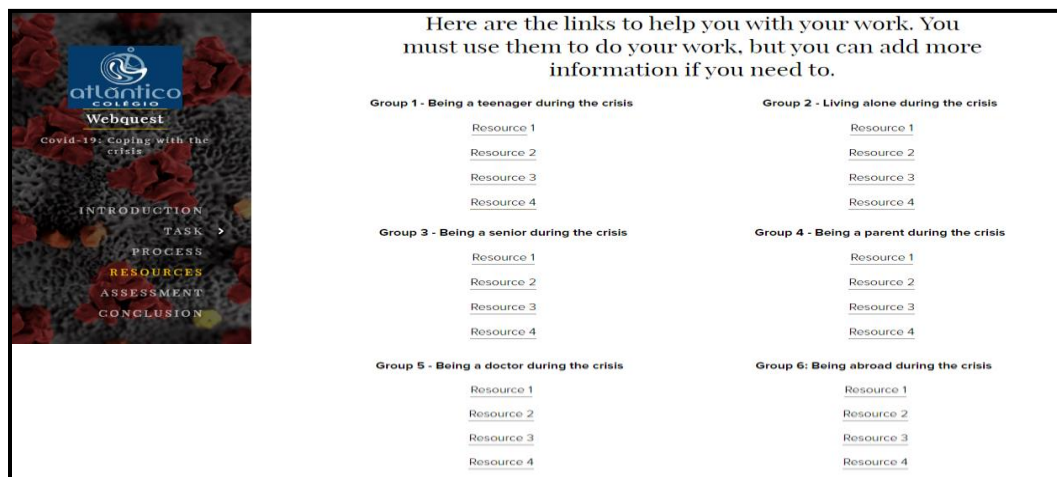
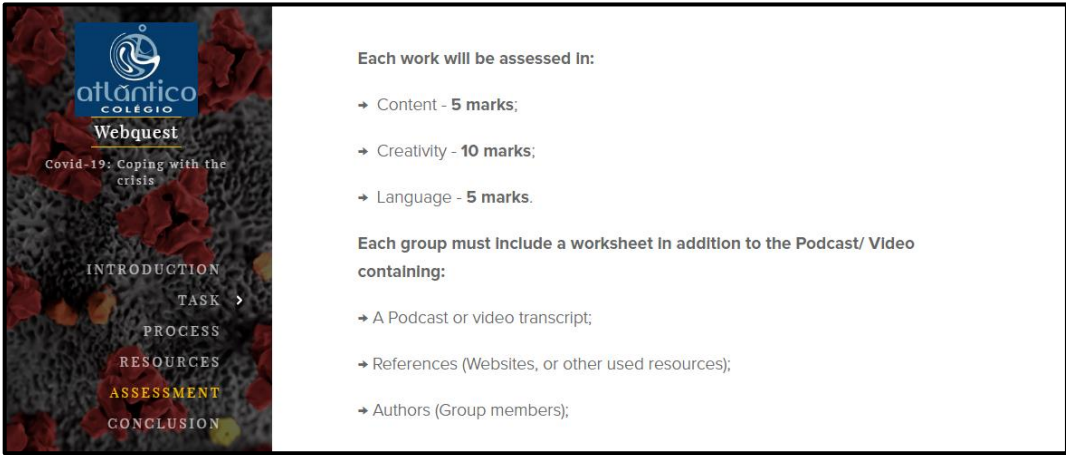


Figure 10. Resources section of the COVID-19: Coping with the crisis.

Assessment

The evaluation section of a WQ is crucial and it should be specific and detailed. As schools were closed, and the final product was a video/podcast, students were assessed for their individual work and for their group work as well. Each student contribution was assessed individually in terms of creativity, content and use of language, but also as a group, for their work produced collaboratively by sharing documents and meeting through Microsoft Teams to complete the WQ.



atlantico COLEGIO
Webquest
Covid-19: Coping with the crisis

INTRODUCTION
TASK >
PROCESS
RESOURCES
ASSESSMENT
CONCLUSION

Each work will be assessed In:

- Content - **5 marks**;
- Creativity - **10 marks**;
- Language - **5 marks**.

Each group must include a worksheet in addition to the Podcast/ Video containing:

- A Podcast or video transcript;
- References (Websites, or other used resources);
- Authors (Group members);

Figure 11. Assessment section of the COVID-19: Coping with the crisis.

Conclusion

The final section contains some final remarks for the students. This section described what students should have learned and displays a final message of hope concerning the situation students were experiencing.

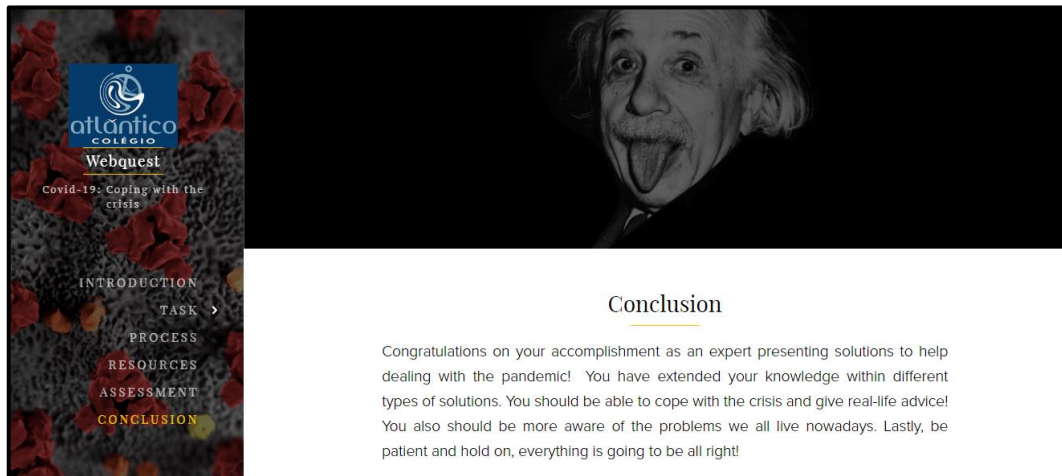


Figure 12. Conclusion section of the COVID-19: Coping with the crisis.

II. 4. RESULTS AND DISCUSSION

As mentioned before, the study focused on how 7th and 10th grade students handled the use of technologies inside and outside the classroom and how they interacted during the WQs. All students were grade individually and particular attention was paid to group work organization in a collaborative and cooperative learning environment and to students' motivation and engagement in their learning and in accomplishing the task. I hoped that the WQ and the use of other technologies would improve their fluency skills by using a website which shaped a more meaningful, attractive, and interactive activity than those created using traditional methodologies.

In this section, the results are presented in two parts. Firstly, the advantages and disadvantages of using a WQ. Then, this report will focus on what students learned and the impact that this particular methodology had on them and on their motivation. The findings showed that these students demonstrated a bigger effort and commitment, as they were working to reach a common goal, dividing tasks, working in groups to conclude their final work.

II. 4. 1. 7TH GRADE

In the gadgets technology WQ, it was found that the great majority of the 7th grade students were creative when building their digital posters. Students had to think about how to create the posters and how to include all the important information and debate the ideas and solutions as a team, without the teacher's help. They had to work on the layout and select all the important information they wanted to include in their presentations, showing creative and innovative solutions to the problems they encountered. Problem solving required students to think outside the box and some of them showed great results. For example, some students were worried they could not choose all the information and pictures they wanted to fit in the poster, so they had the idea of adding the photos on a second layer under the text, overlapping some photos to fit them all.

Nevertheless, during the first stage of the activity some mistakes still occurred in the process. Some students did not respect the due date and used file formats which did not correspond to the instructions. In other cases, digital posters lacking important information were handed in to the teacher. Nonetheless, the majority of the students were able to follow the instructions accurately.

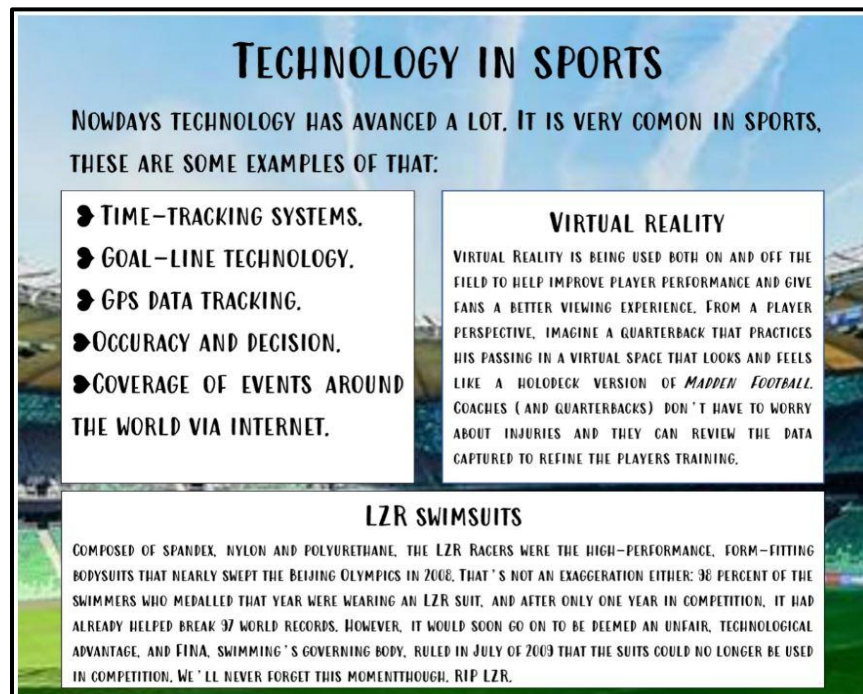


Figure 13. Example of a digital poster.

In the resources tab, although students showed interest in the activity and were curious about what to do, many showed difficulties in selecting important information, which led them to copy paste the websites to their posters, so the teacher had to provide them with additional guidance by showing how to retrieve information from a website. Others presented difficulties in understanding the information and needed to be guided throughout the process by the teacher. To help students retrieving information from a website, it was advised that learners should focus on their subject and search for specific information. Students were advised to think on the relevancy of the information to their main argument, as well as to transform and adapt it through a debate and by putting it in their own words. The main advantage about the information being selected by the teacher was that the sources were reliable and updated, helping students to focus on the task. The fact that they needed this guidance provided

additional indications that even though 7th grade students had the skills to use the technology for searching, they lacked the ability to do research appropriately. Some students considered that researching meant accessing a website and copying the information in it. They did not check what the information was about, or whether all the information was necessary for the assignment at hand. It was proven that students need to be guided and have to learn how to search for information properly, leading us to the conclusion that WQs are a form of helping students transforming the information available on the Internet into knowledge, such as Hartman pointed out in 2012.

As far as the assessment was concerned, students had to complete their self-evaluation, as well as their group work members and other class members assessment. As mentioned before, in order to make this task easier and more appealing, two Google Forms were created. To assess themselves and their group work members, students had four mandatory fields: gathered information, organization/task execution, action/autonomy and cooperation. This required student's responsibility to ponder on the evaluation process, since they were assessed and had to weigh their group work members participation. Each group were also responsible for assessing other group's assignments and its members' contribution as a way of generating competitiveness between different groups and increasing how much attention they paid to other presentations. Each digital poster was evaluated in terms of image/creativity and content as a part of each student's assessment. This school has a policy in relation to self-assessment and assessing others. Students are used to doing this and it became frequent to induce this responsibility in them, such as to involve students in the teaching-learning process.

In relation to the 7th grade students' learning associated to their experience with the WQ, there was some indication that it presented results not only concerning students' proactivity and motivation, but mostly in teaching-related aspects, more specifically teaching how to do research, encouraging students' creativity, increasing their problem-solving skills, and helping them to improve their team-work competences. Soon it was clear that learners did not have the competences to search the internet, and although they knew how to use it, they showed difficulties with choosing the right information to apply. They were not used to think, only to copy sentences and through the use of a WQ students had to improve their searching skills to reach the final goal. Recently, MacLaren attested that technology skills such as building

problem-solving and logic skills will become increasingly important in education and much needed in a near future and that the workforce will demand new skills as technology evolves. The WQ experience proved, in this case, that it can help students to prepare for their future as it helped transforming the information into knowledge.

As far as their creativity, the WQ proved to help them thinking and to find creative solutions to overcome problems such as the layout of the poster and how to manage all the information they wanted to show. To do that, students worked as a team to overcome these problems. Other authors such Costa also suggested that problem-solving situations and presentations about a specific item are helpful to develop student's social, reading, writing, communication and cooperative skills, and we can conclude that, in this case, the WQ was a helpful and meaningful task for the students involved, helping them to develop their skills.

When questioned about the project, 93.5% of students considered the WQ different from other group tasks they did before, and 81.4% considered it better than other group tasks, some referring that they liked the way that the WQ was designed providing each group with its own resources section. Other students pointed out that they had more freedom when doing the WQ and that it was more fun, creative, and confessing that, in their opinion, it provided different subjects from those depicted in the classes. Some confessed that they were more interested in doing the WQ because they related to the subject of technology. Others said that because they had the resources needed it was easier to do and to organize what and where to search, as showed on this example retrieved from the WQ assessment google form.

I don't really have much of a preference but i do believe that it was more creative and more practical than a regular group project.
I really like the fact that we were provided with the information that we needed from the start and i also really like the fact that this is something different.

It seems that for this group of students the WQ also helped them to think and to find a solution for the problem they had to solve, with 91.3% answering positively to this question.

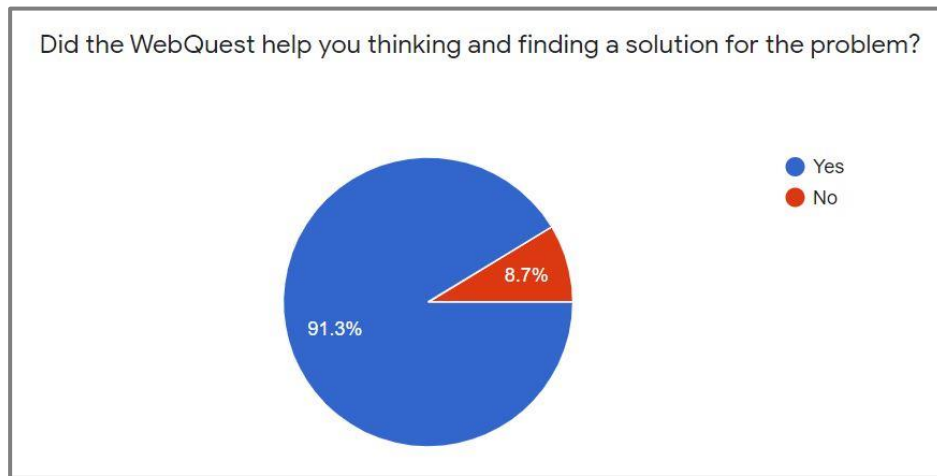


Figure 14. Percentage of students who agreed that the WQ helped thinking and find a solution for the problem.

When questioned if the WQ was a different way of learning things students seemed to agree that this activity helped them to learn new things differently with almost every student agreeing that this activity was different, as showed on the next graphic.

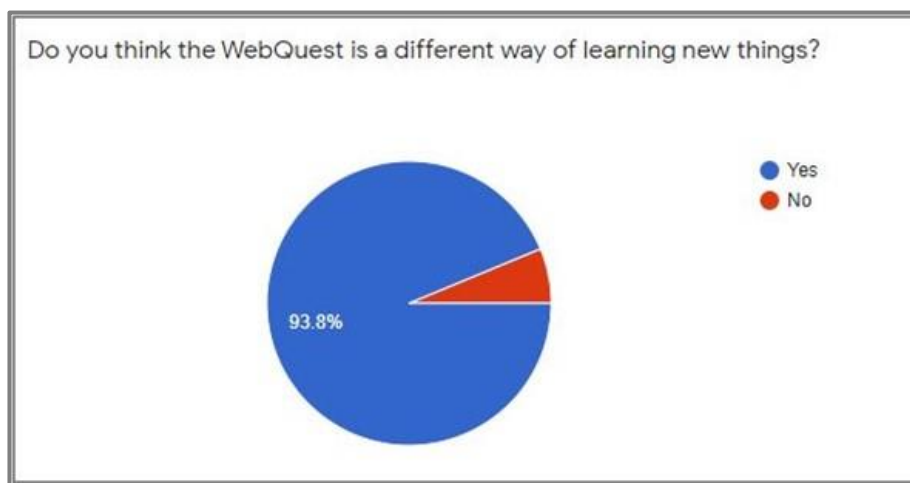


Figure 15. Percentage of students who agreed that the WQ was useful for learning new things.

The results also revealed that almost every student had fun while doing this project with 76.1% answering that they had not major problems in understanding what to do. Nevertheless, some students said they had some difficulties in understanding what to do and that an example of the final work would be helpful to understand what was expected from them, as we can see in the graphic below.

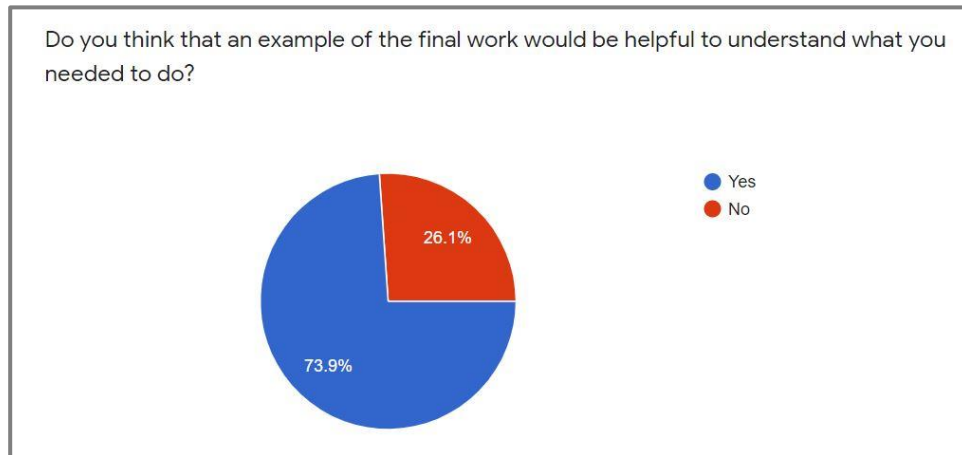


Figure 16. Percentage of students who agreed that an example helps to understand what they needed to do.

However, students did not think it was more difficult to get teacher's help throughout the project if compared to other tasks or group activities with 84.4% revealing that they did not face any problems.

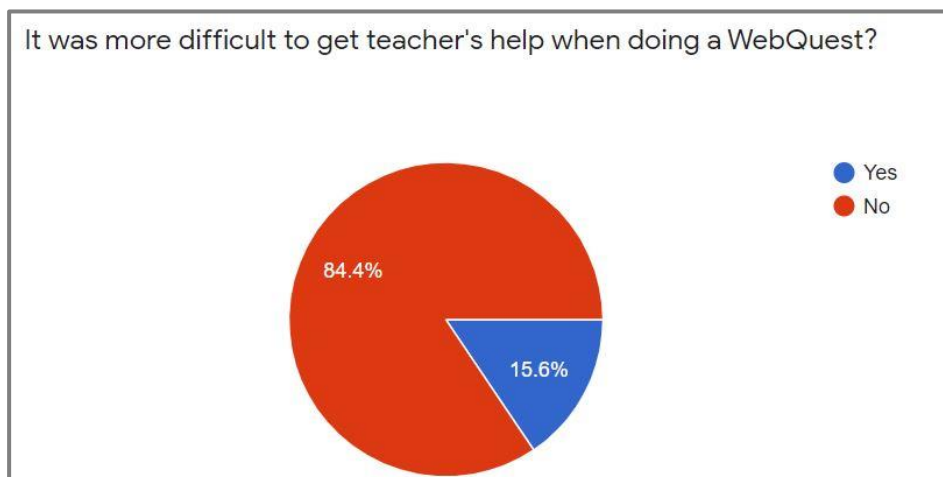


Figure 17. Percentage of students who agreed that it was more difficult to get help from the teacher.

These results revealed that the idea to create and implement an activity that encourages an active and collaborative process of knowledge construction by students is consistent with previous studies such as Pinheiro and Simões (2012) who mention:

collaborative learning environment seems to get students actively involved in the learning process mainly if the tasks to be perform have an empirical component (Pinheiro & Simões 2012, 401).

As pointed, collaborative learning helped students to engage in the activities they had to develop, improving their thinking skills as a group and helping them to develop solutions to overcome problems. Although students already reveal preference for group work, the results also show that they enjoyed the WQ and considered it as a relevant activity that motivated and captivated their interest not just because it is different but also by the fact that the information was organized and was easy to access. The magic formula seemed to be joining a subject of their interest with an activity that was new and different from other group works and tasks they completed before. Although these students are used to work in groups and to do presentations, they mostly agreed that the WQ was more attractive but also contributed to improve their searching skills and learning process.

II. 4. 2. 10TH GRADE

As far as the COVID-19 WQ is concerned, as already mentioned, this assignment was entirely done online due to the pandemic. These older students revealed a great sense of maturity and cooperation throughout the WQ experience, and demonstrated outstanding competences concerning the English language and creativity during this task.

Against these uncertain times, the WQ was created with the thought of aiding students, their families and friends face a new reality and easing anxiety towards the pandemic. Students were asked to give advice and help change behaviors during quarantine through a video or a podcast. Groups were created and, as shown next, almost every student succeeded in their contribution to the group outcome. As they are older, and used to being creative, there were not major concerns or doubts about what they needed to accomplish. Two public meetings, one hour each were scheduled during the two weeks of assessment through Microsoft Teams. It was asked students to be present and to show their work so far, as well as to make questions if they needed to. No specific time was given to the groups in each session. During the rest of the period students were monitored and advised through chat messages and video calls in Microsoft Teams and were asked about their progress, so that the teacher could understand and mediate their work's evolution. Some groups contacted the teacher through the chat in the platform when they needed to clarify information, others were contacted by the teacher to follow their progress. The teacher never controlled what would be the outcome students were preparing to present, providing total freedom for them to execute the activity. As before, the teacher provided all the information needed to do the research, but students were allowed to consult other sources. At the end they confessed that they did not search for extra information, as they had all they needed to complete the WQ in the resources section.

It was decided that would be mandatory to write a script before recording the videos or podcasts (Appendix 14). The script was a tool to help students and teacher organizing their work, as became easier to divide tasks and to understand what the contribution of each member was. It could also help to understand the recordings if some words were not pronounced clearly.

As far as assessment is concerned, students were evaluated by the teacher in content and language (5 marks each) and creativity (10 marks). In order to make the process more

effective, as all the tasks were developed at distance and to respect data protection laws, it was decided that students would be assessed by the teacher only, as the original WQ's assessment item had to be completed with peer to peer evaluation, and one of the final product's output of this WQ was a video. It was the easiest way to avoid students sharing their videos with other groups online. Each student was assessed individually having in mind each contribution for the final task. As mentioned before, a transcript containing all the interventions was mandatory, as well as all references and websites used.

As far as the scripts, some students were apprehensive with their partners when dividing tasks and reported some delays from some group members, reporting that some students did not write their part on time, delaying the making of the final product. Nevertheless, concerning the process, the majority of the students respected the due date, using the required formats and the length time from five to ten minutes to present their work. In some cases, the amount of input each member provided diverged extremely in the videos/podcasts, making assessment more complex, some did not work as good as expected, overwhelming the other group members with more volume of work. However, the majority of the students were able to follow the instructions properly.

In the resources tab, students revealed high interest in the activity, with no reports of difficulties in selecting important information, resulting in creative performances. As a student mentioned: "The WQ provided more freedom to create different types of work". For instance, one of the teams structured their presentation as a television conference with experts concerning the Coronavirus, dressing in formal clothes and even creating a commercial break sponsored by a well-known beverage. Among the solutions, these students came up with tips for dealing with the pandemic. Figure 18 displays some of the activities carried out by this group of students.



Figure 18. Tips for dealing with the pandemic and commercial break.

This provided some indication that 10th grade students had the skills to use the technology to do research, to select information and to create excellent outputs. They also revealed abilities to select the important information necessary for the assignment at hand.

In relation to the 10th grade students' learning associated with their experience within the WQ, there was some indication that the experience helped students in dealing with the pandemic. Students mentioned that by creating videos and podcasts they had to roleplay and that was important to ease their state of mind. After the project students were questioned about their experience through a Google form created to understand their perceptions about the WQ. Their participation was anonymous and more than 50% of the class answered to it. The graphics presented below are the result of their thoughts about the WQ experience.

Some students mentioned that the making of the podcast was amusing and that they not only experienced a good time, but also were able to keep their minds off the present situation, while laughing with their colleagues. Still, the WQ should not be considered only as a distraction during the pandemic, as this particular class demonstrated excellent levels of proficiency concerning the English language during this task. Thus, it was a valuable resource to group work as well as to autonomous learning. All students that answered to the questionnaire considered WQs as being different from other group tasks they did before in the English classes throughout the years, saying that it was better than other group tasks they developed with their teachers, as shown below.

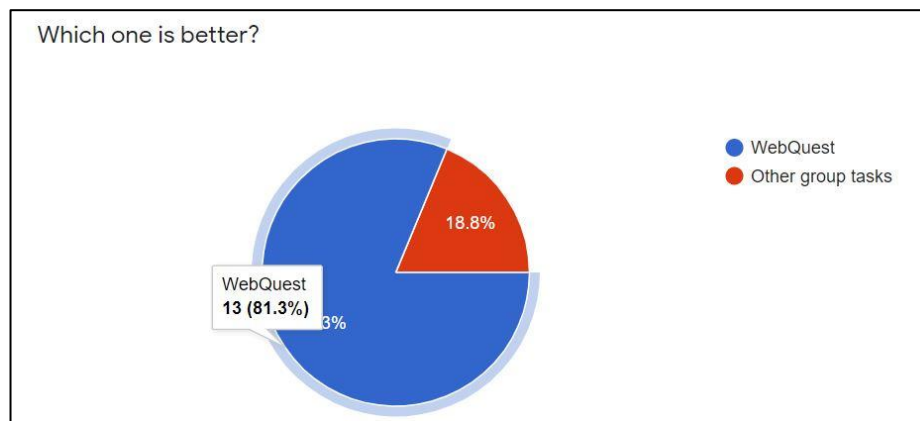


Figure 19. Percentage of students who agreed that the WQ was better than other group tasks.

Some students referred that the WQ allowed them to discuss an important subject with less formality and helped them to understand more about the situation than was happening due to Covid-19 while learning new vocabulary. It was also considered useful to learn a different type of speech and writing while exploring new ideas and using creativity. Some students referred that other group tasks can be very boring often, but that doing the WQ was fun as mentioned next.

Why?

Because it's different from what we are used to

WebQuest is an more original way of working in groups, and let's the students be more creative in the way they do their tasks.

It was something different and new to do.

It helped us understand more about the situation that our country is in and learn new vocabulary. It was also useful to learn a different type o speech and writing.

There is a great interaction inside the group, especially when we do the podcasts

It's much more helpful and it has a more important purpose

I think the WebQuest was a great way to explore new ideas and use our creativity. Other group tasks can be boring very often, but the WebQuest was innovative and really fun.

I think other tasks have a different process that I identify more with

Figure 20. Comments about the 10th grade WQ.

Students also added that there was great interaction inside the groups when creating the podcasts and that the WQ was an original way of working in groups and an opportunity to be more creative. Nevertheless, some students referred that they identify more with other type of activities and that they did not like doing the podcast and that was the reason for them to prefer other type of activities. A particular student pointed out that it was difficult for him to understand what to do, although 68.8% of students did not find any problems in understanding the activity. However, 68.8% of students considered it would be helpful to have an example of what they needed to do.

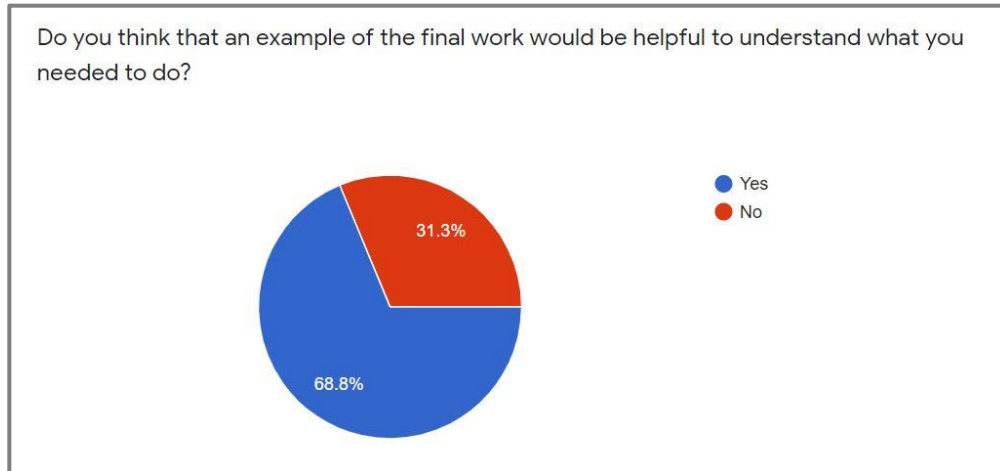


Figure 21. Percentage of students who agreed that an example helps to understand what they needed to do.

Nevertheless, despite the positive results, only 50% of the students that answered to the questionnaire thought that the WQ was relevant to their learning process. This question could have been miss interpreted, since 93.8% answered that WQs are a different way of learning new things.

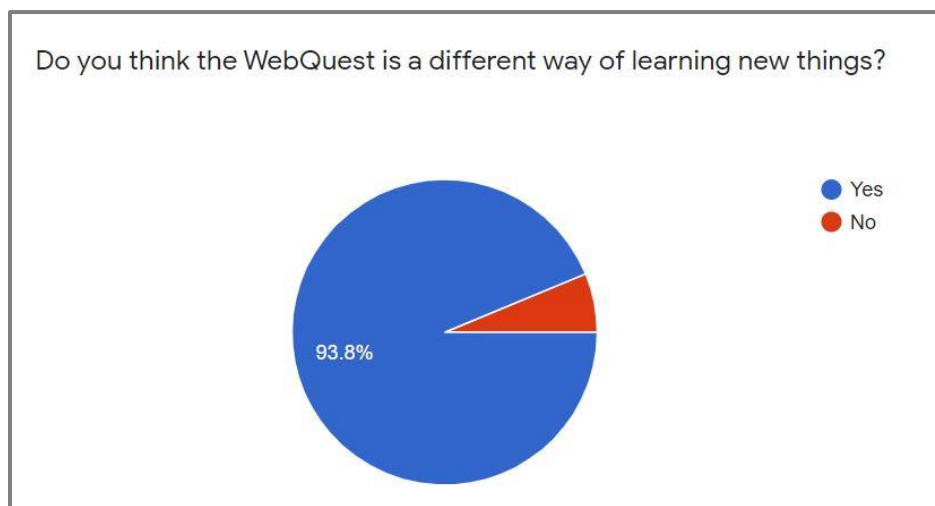


Figure 22. Percentage of students who agreed that the WQ was useful for learning new things.

It seems that similarly to 7th grade students, the feedback of this project was positive with many students referring that the WQ let them to be more creative when doing their tasks

and being considered as something different and new that provided interaction between group members and that helped during the difficult times that resulted from the pandemics. Like the younger students, they mostly agreed that the WQ was more attractive but also contributed to improve their searching skills and learning process.

CONCLUSIONS

The main objective of this study focused on the importance of using new information technologies, particularly the use of the WQs as a tool to develop classroom work to motivate students in learning EFL, as it showed, presenting positive results among different students and different levels, this WQ-related project is in line with these authors' conclusions. According to them, the use of a WQ in teaching is positive, as it involves teamwork, challenging tasks and research using the world wide web (Dodge 1997; March 2003).

Although it is impossible to equally motivate students, it was possible to conclude, through observation, formal written feedback in the shape of a Google form, and its results, that the use of WQs in the English classroom and outside it fostered students' cooperation and enhanced their thinking skills whilst having fun. It assisted 7th and 10th grade students in learning how to work and cope in group work and autonomous learning, as well as to conduct research, since students were used to consult the Internet, but it was proven that sometimes they did not know how to use it properly, copying and pasting their findings

Students revealed enthusiasm while creating the WQ, and it was clear that they were committed and engaged in creating something of their interest, where they were responsible for the final result. This created a healthy competition between different groups, the most obvious case being the 7th grade, not only because students were observed at school, all together in a classroom, where the spirit of healthy competition is higher, but also because they were younger and more prone to experiments. This enthusiasm and healthy competition could come from the fact that they were doing something creative and different from the things they knew, leading to the conclusion that a WQ can be a good activity since it creates enthusiasm in students and that is the desired objective of doing something different that can captivate students' attention and that they can consider useful and new.

When questioned about the whole process at the end of the project, 7th and 10th grade students answered that working through a WQ in the English class was positive. Anticipating that students could be afraid of giving their opinion, their feedback through the Google form was anonymous and optional. Not all students participated, but those who did it, it is my belief

that they gave their real opinion about the projects. They claimed it was a funny way of learning new things and working together, asserting that during this work they were allowed to speak to each other and discuss ideas and be creative in a more informal way. This collaboration is significant to develop teamwork, as knowledge creation is a social process (Havens & Knapp 1999). Some of the students who usually struggle with English the most affirmed that it was an opportunity to feel supported by other classmates who helped them when they had questions that they were too afraid to ask the teacher. This proves that WQ's and this particular project could be helpful to shy pupils, leading weaker students to learn with the help of better students. Weaker students were helped by their classmates referring that the WQ created a big interaction inside the groups and it was easier to work and to search for the information that was already there.

The older students added that because of the WQ they were able to interact with their classmates and create something they appreciated and considered amusing, especially among a group of students who liked to act. This had a special emphasis in a time in which they had to be isolated from the outside world. Some students also mentioned that the WQ was interesting simply because it was different from anything they had ever done before. As mentioned before, some students said that the WQ helped them to understand better the situation they were living caused by the pandemics, was also useful to learn how to create a different type of speech through the podcasts.

While developing a WQ, it is desirable to have clear instructions which could be followed without the need of further clarification from the teacher. This way students can work independently and cooperate with each other. Nonetheless, this proved to be an easier process with older students, as they are more autonomous and demonstrate a higher mastery of the English language. In their feedback, both 7th and 10th grade students agreed that an example of the final work would be helpful for them to understand what they needed to do, especially among younger students, which revealed to be less autonomous and more dependent on the teacher's feedback and on his approval of what was being developed. After the project and with the help of their feedback, it became clear that in order to elucidate about the use of a WQ, and to give students a better idea of what is expected from them, the teacher should provide a sample of the product they need to create, especially if it is the first time working with a WQ.

Tasks like WQs require students to be constantly guided by the teacher through the available websites, particularly with younger students. Thus, the teacher's role could be seen as important for providing guidance and on supervising students by avoiding the use of other websites. Amongst younger students, it is important to explain how to transform the information they researched into knowledge. The teacher plays a main role in this acquisition process, and should motivate students, challenging them with questions about the work they are developing as a way to make them responsible for their own findings. Teachers should also choose the information carefully, planning ahead to ascertain that students can use that information to build their own knowledge and, as a result, avoiding random searches through the Internet.

Throughout the implementation of this project, it was noticed that 10th grade students had the abilities to use the technology for searching, selecting and creating an excellent output whilst the 7th grade students did not. Even though some exceptions occurred, at the beginning, the younger students considered that researching was accessing the websites and copying the information from it, which could be understandable by the nature of the task. To avoid that, it was explained for several times how they could select important information so as to guide them towards the objective.

Particularly among younger students it seems to be important to provide only the most relevant websites with clear and concise information that students can access without missing on what is truly important for their work. 7th grade students revealed many difficulties in coping with all the information offered by more complex websites, leading them to just copy the information without understanding it.

The layout of the WQ was also important for the success of the task. Students' feedback led to the conclusion that the attractive look of the websites made them pay more attention to the work they were supposed to develop as they could relate not only with the subject but also with the visual design implemented in the WQ. Students showed satisfaction and few negative feedbacks about the case study, aside from the lack of understanding younger students revealed towards some research websites. Overall, they declared that they enjoyed doing it since it was different and they had the chance to share information with their classmates. Students also provided some feedback related to the fact that they felt they had

actually learned English through the WQ, as they were able to conduct their own research by using the various available websites and several tools like videos and pictures.

Students also revealed that they prefer working using WQs than different group tasks they had done before, such for instance, show and tell activities, or other group activities they could have made throughout the years, indicating that this allows them to develop their own research, even within limited resources, and consequently have a better work organization, sharing ideas and opinions, resulting in a growth of their learning capabilities. Students also conveyed a positive message of mutual help and cooperation towards their classmates, helping each other to face and solve problems, proving that group work within a WQ has a positive outcome.

Throughout this project, it was possible to witness the benefits resulting from the two WQs regarding teaching and learning EFL. Learners had the chance to build creative and authentic materials, thus establishing a connection between the required task and their own context and the use of the English language, allowing for a rise in motivation and in the final product itself. There is a close connection between motivation and learning, as a motivated student will always present best results and when teaching a foreign language, it is important that learners are truly motivated and motivation is a key aspect within WQs.

It was proven, with the help of student's feedback, that whilst using the WQ, they can also learn how to synthesize information to help build their own knowledge. Younger students showed some difficulties in selecting information, so this can be a powerful tool to help them. It also enhanced cooperation between students, improving their relationship. During the COVID-19 quarantine, it was also a useful way to entertain and distract students from the pandemic, bringing closer friends that could no longer be together, demonstrating that the WQ was a source of interest and motivation. The motivation experienced in both levels resulted from the choice of subjects that mattered to students, providing them with reasons to learn English, and creating a very rewarding experience for teachers and students. Overall, and based on the final works students presented and relying on their feedback, it is my belief that in this case study the WQ contributed for enriching the teaching of EFL, although it should be adapted to the schools and the students' needs.

The positive feedback could also have been influenced by the fact that students were creating tasks that were relevant to them, since technology is present in their everyday lives, in school, and during their leisure times. The fact that they love gadgets and use them all the time is a key element to their high levels of commitment throughout the project and for their positive feedback.

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