Case Study

The Use of the WebQuest Textual Genre as an Incentive for Collaborative Learning for Students in a Professional Technical Course

O Uso do Gênero Textual WebQuest como Incentivo para a Aprendizagem Colaborativa dos Alunos de um Curso Técnico Profissionalizante

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Abstract

The present study was developed through applied research in the People Management discipline of a state educational institution, located in the northern region of the state of Paraná. The question that guides the research is: the use of the textual genre WebQuest encourages the collaborative learning of students of the Professional Technical Course in Administration? In line with this issue, it was proposed to carry out a task, that students should access the WebQuest entitled "Entrepreneurial Profile" and perform the available activity. This research is considered, as its objective, as exploratory; as for the procedures, such as survey and quali-quantitative approach. Sixteen students participated in the study and data collection occurred in the first semester of 2019. According to the students' answers, it was found that 75% feel more satisfied in carrying out activities in a collaborative way, therefore, it was identified that the use of the textual genre WebQuest proves to be productive for scientific learning in an educational environment in process collaborative work.

Keywords: WebQuest. Textual Genre. Collaborative Learning.

HOW TO CITE THIS ARTICLE

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Resumo

O presente estudo foi desenvolvido por meio de uma pesquisa aplicada na disciplina Gestão de Pessoas de uma instituição estadual de ensino localizada na região norte do estado do Paraná. A questão norteadora da pesquisa é: a utilização do gênero textual WebQuest incentiva a aprendizagem colaborativa dos alunos do Curso Técnico Profissionalizante em Administração? Em consonância com essa problemática, foi proposta a realização de uma tarefa em que os alunos deveriam acessar a WebQuest intitulada "Perfil Empreendedor" e realizar a atividade disponível. Esta pesquisa é considerada, quanto ao seu objetivo, como exploratória; quanto aos procedimentos, como de levantamento e de abordagem quali-quantitativa. Participaram do estudo 16 alunos, e a coleta de dados ocorreu no primeiro semestre de 2019. De acordo com as respostas dos alunos, constatou-se que 75% se sentem mais satisfeitos em realizar atividades de forma colaborativa. Portanto, identificou-se que o uso do gênero textual WebQuest se revela produtivo para a aprendizagem científica em ambiente educacional em processo de trabalho colaborativo.

Palavras-chave: WebQuest. Gênero Textual. Aprendizagem colaborativa.

1. Introduction

Collaborative learning combined with the use of new technologies is a trend in the school context, according to Linhares (2017). In order to make students competent in information literacy, that is, capable of searching, selecting and organizing information and scientific knowledge, the school needs to develop pedagogical practices supported by technological supports from the internet. The use of technologies promotes differentiated learning, in which the student connects with various information available on the network in real time and can also interact with classmates to exchange ideas and information through collaborative learning, in which everyone involved has the same goal of learning, in addition to being an attractive and supportive learning methodology.

Therefore, the importance of carrying out activities collaboratively in the classroom is highlighted, combined with the use of digital technologies, making teaching dynamic and interactive, especially in the vocational technical course, which prepares the student to be a competitive professional in the market work, in which teamwork becomes essential for the formation of a network of relationships.

Despite the longevity of *WebQuest* as a collaborative teaching tool, the interest of researchers in its application has increased considerably in recent years, such as in the areas of health (CZERWINSKI; COGO, 2018), history (PAIVA, 2017; MOURA, 2020), biology (ARAÚJO; ALMEIDA, 2020) and mathematics (PAZ *et al*., 2020).

The *WebQuest* is considered, by Paiva (2017), as an innovative tool for teaching so that, when properly applied, it awakens the interest of students in their classes.

Based on these premises, it was decided to work the digital textual genre *WebQuest* (WQ) with students from the Professionalizing Technical Course in Administration of a public educational institution, located

in the northern region of Paraná. This genre provides interactivity, contains oriented activities that pose challenges to students, urging them to seek a resolution through the use of the internet and in a participatory and collaborative way. The aim of this study is, therefore, to identify whether the use of the WQ text genre entitled "Entrepreneur Profile" can encourage course students to learn from a collaborative perspective.

To achieve this goal, a bibliographical study was carried out on the considerations about the textual genre WQ and the importance of proposing challenges for the accomplishment of tasks in the school context and on collaborative learning in the context of vocational education, in line with the realization of a field research carried out in the computer laboratory of the educational institution, where students used this type of textual genre so that it was possible to describe and analyze collaborative learning. For data collection, an online questionnaire with open and closed questions was applied in order to identify the results of the study developed.

2. Theoretical Reference

Tibes *et al*. (2017) state that the WQ needs to develop research practices guided by challenges that stimulate students' reasoning. Thus, students will need to reflect and develop analytical skills to solve problems and situations.

In this context, this chapter will address the textual genre *WebQuest* and the importance of proposing a challenge in carrying out their tasks in the educational field.

2.1 The *WebQuest* Textual Genre in the School Context

In this period of pandemic caused by Covid-19, social isolation is recommended. In this sense, the internet is essential for the search for information, in addition to being a practical and accessible means of communication. In this context, it is important to develop new teaching methodologies based on the use of digital textual genres that prioritize the use of the internet for research. From this perspective, the textual genre WQ becomes ideal to encourage the use of the internet for research and propose the realization of challenges that stimulate the student's interest in learning by interacting with classmates.

For Carvalho *et al*. (2018), when performing an activity through the WQ, the student needs to seek a direction led by the teacher that encourages the use of resources already existing in the network to perform the tasks proposed to them, that is, it is not just a research in the web, is the development of a task oriented with defined goals.

In the understanding of Paiva (2017, p. 122), "the WQ is a methodological tool that is based on the guidance of students for browsing and searching the web", this web browsing is based on the resolution of issues or problem situations, that instigate the student to reflect and seek information using the internet.

According to Mondek, Trevisan and Santos (2018), the WQ is a textual genre in the electronic medium that allows learning through animation mechanisms, such as videos, links, images that promote social interaction in a different way from the methodology already used in the classroom classes, that is, the electronic text genres are interactive and promote differentiated and updated teaching that follows the evolution of technology, as well as its transformations, and also promotes the socialization of people through the exchange of knowledge. Therefore, this practice is very relevant, as the teacher needs to seek new ways of teaching and the WQ can be an alternative to reinvent the teaching and learning process, promoting interaction between students.

In the postulates of Laís (2017), the use of new technologies provides more possibilities for interaction among students, resulting in greater motivation, as they, in addition to seeking information, will be able to publish their work on the large network. The author also states that digital textual genres can be educational tools of great relevance to the teaching and learning process, as it expands the discursive competence of students.

Through the textual genre WQ, the student will fulfill a journey of challenges that will instigate the search for knowledge and enhance collaborative work, expanding their discursive competence, as they will use research through the internet, will access various materials provided by the teacher who prepared the activity in order to enable and motivate the resolution of the challenge, in addition, the student can exchange information with their classmates in search of ideas and information that contribute to the completion of the steps relevant to the WQ.

According to Martins, Bianchini and Yaegashi (2017, p. 291), "the challenges can be accomplished through internet searches (usually the most used) and other sources, such as books, videos and even people who can be interviewed". Thus, the teacher has several ways to streamline the proposed tasks from the use of this textual genre.

By proposing challenges, the teacher will be a mediator in the teaching and learning process, as this process will develop the student's autonomy, making them more critical and encouraging them to seek information and knowledge through the dynamic and dynamic exchange of ideas and opinions. collaborative.

According to Prais *et al*. (2017), when using the WQ in the school context, the teacher needs to follow principles that are fundamental for the student to feel motivated and appropriate the content to carry out the activity. These principles involve the development of an interesting activity that stimulates internet research, involves space-time adequacy and coherent planning of the content to be worked on.

Therefore, it is necessary that the activities developed in the WQ are instigating, motivating and challenging, because, when it comes to WQ, the objective is to create a learning journey in which students need to understand the entire context of the indicated task to achieve the proposed results and idealized by the subject teacher.

2.2. Collaborative Learning in the Context of Vocational Education

The pedagogical proposals currently practiced in schools, in general, are rigid, standardized and require mere reproduction of content (SILVA; MENEZES; FAGUNDES, 2016), so it is necessary to rethink new ways of teaching and making classes more productive, encouraging collaborative learning, as this learning allows the exchange of knowledge, knowledge, experiences and ideas, and these factors are essential for vocational education students to be able to seek professional preparation for the labor market, developing skills relevant to interpersonal relationships, developing communication and expanding the capacity for discourse and argumentation through the sharing of experiences.

For Amaro, Ramos and Osório (2009), collaborative learning is conceived by a system of interactions that encompasses different actors in the school setting and this contributes to preparing people for the world of work, developing flexibility and proactivity. In short, collaborative learning allows the interaction and production of knowledge collectively, encourages the exchange of ideas together and is essential for vocational education students to develop a critical look at the concepts learned in the classroom.

In the conception of Meirinhos and Osório (2017), through collaborative learning in virtual environments, a new relationship is established between the participants involved in the learning processes, and this collaborative learning becomes more demanding than individual learning, as it requires technological mediation in space and time, it requires social involvement through the creation of activities that stimulate and streamline this learning.

This social involvement happens due to the fact that each student will be able to express an idea that, later, will help to develop, in those who are learning different skills related to the development of critical sense, argumentation and knowledge construction, making the subject more participative in the environment. what does it relate to.

3. Methodology

The research was carried out in a state educational institution located in the northern region of the state of Paraná. This institution has the Professional Technical Course in Administration, lasting a year and a half, whose objective is to prepare the student for the job market and develop the necessary skills so that students can stand out professionally, both as professionals working in organizations and as entrepreneurs.

This course is composed of three semesters and the research was carried out with students from the third semester of the course. The class consists of 16 students and all participated in the survey. Only the third semester students were chosen, as they are completing the course, they have already developed academic maturity, in addition to which, in the last semester, they need to create a company through the business plan, to put into practice all the knowledge acquired during this period. .

Therefore, the proposal to study the WQ textual genre combined with collaborative learning occurred because students need to study concepts related to entrepreneurship to build a business plan and because students show more interest in learning when the teacher proposes activities in groups and uses technology in the classroom and this has to combine theory and practice so that it has meaning for the student.

We opted for field research because, according to Severino (2007), in field research, the object is approached in the environment itself, where the research is carried out and data collection is done through the observation of natural phenomena with observation direct without intervention by the researcher. It is also a bibliographical and descriptive research because it uses several reference sources related to the research theme and explains key concepts, such as *WebQuest* textual genre and collaborative learning. It is also classified as analytical research because it discusses the information obtained from the students' responses to the proposed activities.

The research was conducted in four classes lasting 45 minutes each, totaling 180 minutes and divided into two parts: the first part was developed in the Institute's computer lab in three classes, totaling 135 minutes, through the WQ created by the professor at subject; the students developed the proposed task and completed all the steps relevant to it. The steps are: introduction (presentation on the subject that arouses interest, "entrepreneurial profile"; task (contextualized work proposal); process (guides the student on the procedures for performing the task); resources (materials used to develop the task) ; evaluation (evaluation criteria); conclusion (synthesis of the proposed task developed).

The second part, lasting a 45-minute class, was intended for data collection held on June 28, 2019 (first semester), with the aim of abstracting students' perceptions about collaborative learning through use of the WQ, in which the teacher provided an online questionnaire with open and closed questions, because, according to Bastos and Ferreira (2016), open questions give the respondent freedom to express their opinion and closed questions are defined by the researcher according to their convenience.

Some questions were presented using the "*Likert*" type scale and, according to Silva Júnior and Costa (2014, p. 4.), "respondents answer 'Totally disagree', 'Partially disagree', 'I neither agree nor disagree', ' Partially agree', 'Totally agree 1 2 3 4 5'". This method helps to measure the intensity of responses according to the questions asked. The results and discussions of the research will be presented below..

4. Results and Discussions

In the first phase of the research, the profile of the students of the technical course was verified and, in the second phase, the opinions of the students regarding the teamwork that was part of the process of carrying out the task with the use of the WQ were verified, to that it would be possible to analyze the relevant aspects of collaborative learning.

4.1 The Profile of Students in the Technical Course

Regarding the age group of respondents, it was found that 6 students (37.5%) are aged between 22 and 30 years old, 2 students (12.5%) are aged between 17 and 21 years old, 4 students (25%) they are between 31 and 40 years old and 4 students (25%) are over 41 years old, as shown in Graph 1.
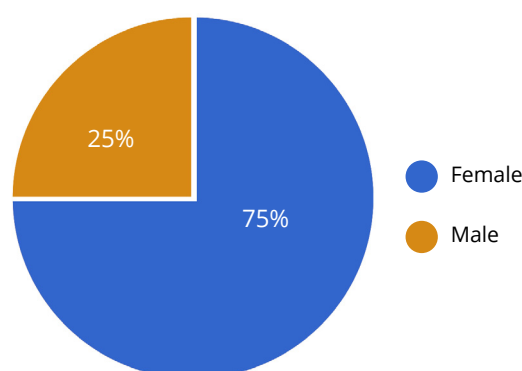
Graph 1: Students' age group
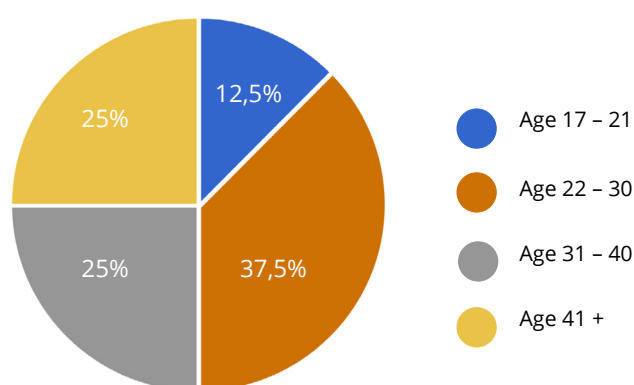
Source: the authors, 2020

Regarding social gender, 12 students (75%) are female and 4 students (25%) male, which shows that women make up the majority presence in this Technical Course in Administration, according to Graph 2.

Graph 2: Social gender

Source: the authors, 2020

Therefore, with regard to the profile of the students, it was observed that the class is mostly made up of women, and that the students are of heterogeneous ages, and this reflects in a different way of thinking, which contributes to analyzing a diversity of opinions about team work.

4.2 Students' Opinions on Doing Teamwork Using the WQ

Among the respondents, 12 students (75%), out of a total of 16 (representing the majority) said they prefer to carry out group work when applied in the classroom by the teacher. The others (25%), referring to 4 students, prefer to carry out the work individually. Thus, it is concluded that most students like to carry out activities collectively, as shown in Graph 3.

Graph 3: When the teacher assigns some work in the classroom, which way the student prefers to do it?
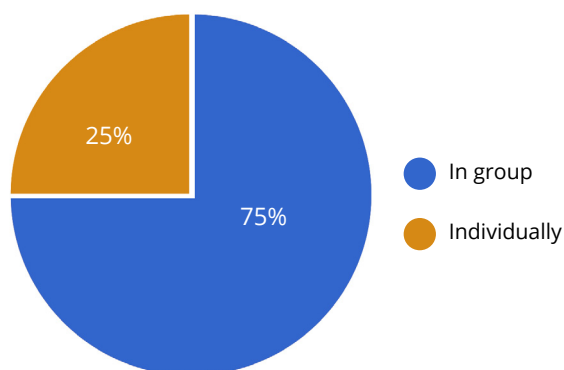
Source: the authors, 2020

Of the respondents, 14 students (87.5%) feel more motivated to carry out teamwork, that is, the vast majority, as shown in Graph 4.

Graph 4: Students' motivation for group activities
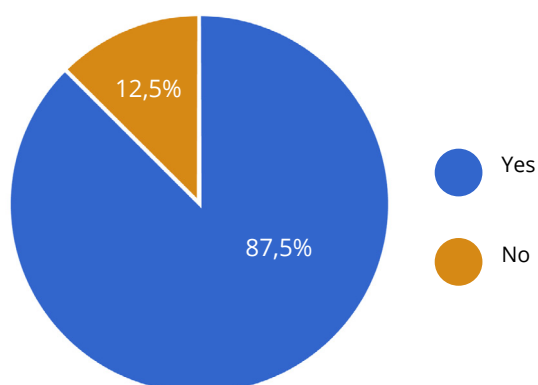
Source: the authors, 2020

Then, on a scale from 1 (totally disagree) to 5 (totally agree), 7 students (43.8%) gave a grade of 3, considering that teamwork facilitated the fulfillment of the task proposed by the WQ; 3 students (18.8%) attributed a grade of 4; and 6 students (37.5%) gave a grade of 5. Therefore, teamwork facilitated the fulfillment of the WQ task and no student gave a bad grade for the use of WebQuest, according to Graph 5.

Graph 5: Did group work facilitate the accomplishment of the task proposed by the WQ?

Source: the authors, 2020

On a scale of 1 (strongly disagree) to 5 (strongly agree), 12 students (75%) gave the highest score, fully agreeing with the statement that teamwork allowed for the sharing of ideas, which enriched learning, by that you see in Graph 6.

Graph 6: Did group work allow the sharing of ideas among students?

Source: the authors, 2020

Respondents were asked to define, in a word, how it was to work as a team to develop the task developed through the WQ. The words used by the students are shown in Figure 1, as follows.

Figure 1: Words used by students to define the work carried with the WQ.

Source: the authors, 2020

From the answers, it was found that all students were able to define, in one word, what it means to work as a team according to their conception. The word "pragmatic" has the meaning of practical and objective, which demonstrates that teamwork is relevant and productive to develop a task proposed by the WQ.

Soon after, students were asked to freely express their opinions about the advantages of working in a team to develop the task proposed by the WQ. The students' answers (S) were, respectively, named as S1, S2, S3, S4, S5…S16 and presented in Chart 1.

Chart 1: The advantages of working in group to develop the task proposed by the WQ

Students	Responses
S1	"having someone else's opinion is better to be able to question and debate"
S2	"the advantage is that we can see and/or discuss the best answer"
S3	"learning that we have similar thoughts and acquire more knowledge by listening to the other's point of view, one answer can be totally the same to other or equal"
S4	"learning to listen and argue")
S5	"diversity of knowledge, interaction of all participants"
S6	"broad view and aggregation of ideas", "we have more opinions and ideas"
S7	"debates, group suggestions")
S8	"perception of different opinions"
S9	"facilitates the development of activities"
S10	"provides learning"
S11	"the advantages are collective spirit, more ideas, dynamism etc."
S12 to S16	"the advantage of doing the work in group is that you can listen to other people's point of view in order to share knowledge"

Source: the authors, 2020

Analyzing the answers, it was found that they were positive and that the participants knew how to define the advantages of working in a collaborative way. It was also found that students recognize the importance of teamwork; according to Silva, Menezes and Fagundes (2016, p. 816): "it can be seen that, in collaborative spaces, students can relate", which demonstrates the relevance of using didactic tools that encourage collaborative work in classroom.

In another requested activity, students wrote about the disadvantages of working in a team to develop the task proposed by the WQ. Again, the students were named S1, S2, S3, S4, S5…S16 in the presentation of their answers in Chart 2.

Chart 2: The disadvantages of working in group to develop the task proposed by the WQ).

Students	Responses
S1	"procrastination"
S2	"diverse opinions"
S3	"people will not always agree with you, and it may lead to conflicts"
S4	"conflict of divergent ideas"
S5	"not everyone lets the others express their opinions"
S6	"the disadvantages are when the ideas do not match, there is no collectivity, then group work does not succeed, etc."
S7	"the disadvantage of doing group work is that with so much information given, you may not agree with the decision that was taken during the work", "not using only your ideas"
S8	"disagreement on not adding some ideas"
S9 to S16	Did not point out any disadvantages

Source: the authors, 2020

From these answers, it was observed that 7 students did not point out any disadvantages, therefore they considered teamwork advantageous. Regarding the students' difficulties in performing the task as a team, it was found that 9 students out of a total of 16 had no difficulties in interacting as a team, according to the data presented in Chart 3.

Chart 3: The difficulties of working in group to develop the task proposed by the WQ

Students	Responses
S1	"procrastination"
S2	"convincing group mates that my arguments would be the most suitable"
S3	"lack of affinity with some group mates"
S4	"jokes and fun during the activity"
S5	"different opinions"
S6 and S7	"diversity of opinions"
S8 to S16	Had no difficulties

Source: the authors, 2020

The data showed that: (i) students were able to express the work done with the WQ in a positive way; (ii) students prefer to carry out group work when applied in the classroom by the teacher, as they can exchange ideas and/or experiences among colleagues and seek solutions for the activities proposed in the WQ; and (iii) WQ contributes to knowledge sharing.

In short, it was observed that *WebQuest* meets the requirements to be considered as a textual genre class, because it presents:

a. context of production, reception and circulation of texts (since the teacher and students produced the genre for themselves, among themselves and made it available to other people);

b. theme (students learned entrepreneurship content); function (students achieved, to a large extent, the learning objective proposed by the teacher);

c. organization (students understood and fulfilled the tasks of each tab); language (students used gender-appropriate formal linguistic style).

These findings are in agreement with the weightings of Prais *et al*. (2017) to build the *WebQuest* enabling students to adopt an investigative stance, a research spirit and the application of critical thinking.

In addition, it was found that the textual genre *WebQuest* constituted, at the same time, a didactic resource and a productive technological resource for the process of teaching and learning scientific contents in professional technical courses. This result corroborates the notes of Mondek, Trevisan and Santos (2018), when they mention that the textual genre *WebQuest* allows contact for social interaction and expands the interest of students, as it allows the teacher to work with videos and simulations.

Thus, it is understood that the *WebQuest* application as a textual genre allowed the teacher to act as a mediator of student learning, creating conditions for students to participate in a more autonomous, interactive and collaborative way. The same finding by Prais *et al*. (2017), who highlight that, when using the WQ as a textual genre, the tutelage of a mediator is essential. This result demonstrates that teacher mediation is essential to conduct student research using the textual genre *WebQuest* and that this tool, by itself, does not encourage collaborative learning.

5. Conclusions

According to the results obtained in this study, it is intuited that *WebQuest* encourages collaborative learning of students and motivates them to carry out activities. Therefore, *WebQuest* consists of a fruitful didactic resource for the cooperative construction of scientific knowledge in the educational environment, particularly in vocational education, such as: conducting research and studies, solving case studies, debates and the development of interpersonal relationships in students; these factors mentioned here are very relevant for the performance of these students in the world of work.

Although *WebQuest* exists since 1995 as a possibility of educational resource, there are still few researches and publications in Brazil with the use of this pedagogical tool in different areas of knowledge; therefore, it becomes current and relevant for implementation by Brazilian professors from different curricular units, considering the promising results that it can promote, as happened in this study.

In summary, collaborative learning is essential to enhance the relationship capacity among students in vocational education and expand knowledge in line with the practice of activities that encourage discovery, research, interaction and socialization.

It is suggested, for future work, to carry out research that will help professionals and teachers of vocational education in disseminating the importance of collaborative learning in the educational field, such as the impacts of digital information and communication technologies on the collaborative learning of education students professional; digital business games that encourage the development of collaborative learning in technical courses; and the active methodologies that develop collaborative learning in vocational education.

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