

DIGITAL APPROACH TO TEACH CREATIVE WRITING WITH SECONDARY STUDENT LEARNERS OF ENGLISH

Ana Paula Rocha^{1*} and Maria Prazeres Casanova²

^{1,2}LE@D, Universidade Aberta, Portugal

ana.rocha@uab.pt¹ and maria.casanova@uab.pt²

*correspondence: ana.rocha@uab.pt

<https://doi.org/10.24071/llt.v26i2.6569>

received 11 June 2023; accepted 19 October 2023

Abstract

In this article, we share our reflections and analysis on the potential of digital resources in teaching creative writing in English and promoting the learning of a foreign language in a collaborative environment. Our work aims to identify best practices in using digital tools such as Google Workspace, Padlet, and Issuu, for in-class activities with seventy secondary students. We conducted a study following an action-research methodology in the classroom and applied digital teaching strategies with learners of a second language. The focus was on a creative and collaborative writing process, to develop imagination in the conception of fictional stories while promoting collaborative skills. Our key question was "What are the digital pedagogical strategies that can contribute to the creative and collaborative writing competence in a foreign language with secondary school students?" We were interested in examining the potential of a writing collaborative activity in a digital environment as a stimulus to learn the linguistic rules and expand the vocabulary. Additionally, we analyzed the results of the assessment executed among peers, applying selected rubrics for the competencies of cooperation and participation. As a result, we found that the students had reached a higher level of reflection towards texts.

Keywords: assessment among peers, digital strategies, promoting collaborative competence, teaching creative writing

Introduction

Teaching writing in a foreign language has always been a complex and challenging process, as students often struggle to express their ideas, imagination, feelings, thoughts, descriptions, or narratives in written language. Developing these skills requires persistence from teachers, as well as sufficient opportunities and methods to teach effective communication in the classroom. However, extensive writing opportunities are often reduced or not given enough significance in the teaching process.

According to Alqahtani (2015, p. 23):

“Teaching and learning processes have to make it possible for the students to understand the meaning of their learning material. Students as the learning subject are the starting point in teaching and learning,



which measures the success of the teaching-learning process. Teaching and learning can be successful when the students can directly feel the advantages of learning materials by experiencing and learning them.”

This research explores the effectiveness of teaching writing in a foreign language using collaborative strategies through online platforms. It started as a quasi-experimental school project but developed into an action-research study in the teacher/researcher's practice. The study applies digital teaching strategies to a sample group of seventy English students as Foreign Language (EFL) learners from three different classes. The focus is on a creative and collaborative writing process, aiming to develop imagination in the conception of fictional and creative narrative and descriptive stories integrating technology. Studies have shown that technological integration (through computer-aided education) has significantly improved the effectiveness and quality of education (Cingi, 2013; Ghavifekr & Rosdy, 2015) as cited by Esgrina and Generale (2023).

The collected data, both qualitative and quantitative, was obtained through observation of the student's behavior, their perception of the strategies, textual analysis of the final products, and a comparison of the writing competence results from the first school semester with those achieved in the second semester during the study period.

The main item that we want to discuss in this study is formulated in the following key question: "What are the digital pedagogical strategies that can contribute to the creative and collaborative writing competence in a foreign language with secondary school students?"

Research questions

Teachers who work daily with heterogeneous groups of secondary students often witness their continual disappointment due to their failure to express themselves well in writing, which can lead to a loss of creativity and discouragement.

To address this issue, we developed a plan after diagnosing several difficulties and a lack of capacity to make ideas concrete and visible in writing. We explored several hypotheses, such as:

- Teaching creativity and collaborative writing can be achieved and boosted by using digital platforms;
- Digital resources and strategies can help improve student achievement;
- If we promote the students' digital and collaborative competencies we may be targeting their writing skills as well;
- Assessing students with rubrics presents a clearer idea of their writing performance;
- Collaborative writing stimulates reflection, critical thinking, creativity, and knowledge sharing;
- By following certain steps in a spiral of actions, such as beginning with an outline and brainstorming, before the act of writing, we may help the students master the knowledge of good writing.

The study emerged from a professional need and was materialized through a consistent intervention with the specific intention of developing writing skills and creativity in a digital and collaborative environment.

We were led by the key question: What are the digital pedagogical strategies that can contribute to the creative and collaborative writing competence, in a foreign language, with secondary school students?

With this in mind, we were interested in examining the potential of a writing collaborative activity. Therefore, this study also addresses the following hypotheses:

- a) A digital environment can be a stimulus to learn the linguistic rules and expand the vocabulary;
- b) There's an impact on the performance when the assessment is executed among peers, applying selected rubrics for the competencies of cooperation and participation.

Firstly, we made some decisions on the theoretical framework that fitted our investigative interests and on the digital platforms that could lead us to the expected success. Secondly, the teaching methods were grounded on the results we aimed to obtain and our previous teaching experience. Finally, we conducted our study on the [Idea Puzzle](#) digital platform (as a research decision-making tool) which allowed us to make adjustments along the process, in the classroom assignments, as time went by, and similarly in the study methodology and data collection. This helped improve the coherence of the research proposal and review its strengths and weaknesses. According to Morais (2023 Junho 21):

“The Idea Puzzle software is a decision-making tool that helps (...) design a coherent research proposal, article, or thesis in the light of the Philosophy of Science (Morais & Brailsford, 2019) It also helps review the strengths and weaknesses of a research project in any field of knowledge (Parente & Ferro, 2016).”

In our research we used several research instruments, and in particular, we scored and graded students in three different moments: two scores obtained in two writing tests before the research intervention, and one after the intervention procedures. The use of rubrics was also important to categorize students' performance and reveal the competencies that were developed and achieved.

Theoretical framework

The theoretical framework is directly related to the keywords of the study and the research questions. It enabled us to make predictions and connect the issues under analysis to existing knowledge about the process of writing, learning-centered classrooms, collaborative writing, assessment of students using rubrics, and digital environments and platforms for developing collaborative work.

Creative writing

Creativity should be seen as a way of learning how to write and improving writing skills. Teachers can help develop their students' abilities by proposing personalized or fanciful written expressions, whether short or extensive. By constructing narrative, poetic, descriptive, or dramatic texts, students have a wide range of possibilities to exercise their creative potential while applying the

grammatical knowledge they have acquired previously. Although creative writing can be seen as a playful way of exercising writing competence, it can enhance and improve it.

Using this strategy requires commitment to the various phases of the writing process (outlining, brainstorming, drafting, revising, editing, reviewing, etc.). It promotes the development of critical thinking. In agreement with Leitão (2008, p. 31) the practice of creative writing must be anchored in a methodology that favors a global treatment of written text, allowing students to adopt a phased and hierarchical path in their continued activity of text production. It is a powerful tool for linguistic development and personal growth. Above all, each writer must be confronted, step by step, with the need to make decisions regarding the challenges presented by the teacher.

Teachers are fundamental in the process and development of creativity, assuming the role of learning facilitators and coaches. The creative task should be adjusted to the students' grammar knowledge and writing content. Teachers ought to ensure an accessible relationship with their students to generate a stimulating, motivating atmosphere in the classroom, valuing the questions they ask, the multiplicity of their ideas, and their participation. Active engagement in the learning process is also directly associated with strong scientific preparation from teachers, which stimulates students' self-confidence and self-regulation.

The capability of being creative is likely to be found in all students if we consider that creativity is the capacity for discovery, invention, establishing the new and different as possible alternatives, using multiple points of view, and selecting alternatives. Nevertheless, it has to be strengthened through constant practice.

Furthermore, creative writing always has a double dimension - that of content and form. It should aim to develop a practice of personalized and effective writing, both in substance and form (Leitão, 2008, p. 32). This means that having a good idea and an interesting theme is the heart of every writing process so that the language can be used in an inventive and imaginative way.

On the other hand, telling stories has the empowering potential of helping individuals learn skills and acquire knowledge (Rahimi, Yadollahi, & Wang, 2017) which is the main target of every teacher. Telling stories in a digital setting leads students to more opportunities for discovery and cooperative learning which can provide cognitive and social growth through the use of language skills (Tecnam, 2013). Therefore, digital storytelling is both a valuable teaching content and procedure that inspires active learning and “creates an atmosphere of excitement and fun; fosters appropriate use of technology within the curriculum; bridges school and community; weaves into all subject areas; [and is] effective for both visual and auditory learners” (Frazel, 2011, p. 11, as cited by Rahimi, Yadollahi, & Wang, 2017).

Digital strategies to develop collaborative work and the collaborative competence in learning centred classrooms

In the 21st century, collaboration is an essential social competence required in various educational and professional areas, both in large and small groups. It is an integral part of the learning process and involves mutual assistance where students use their strengths and qualities for the benefit of all members to achieve the best possible results.

Freitas and Freitas (2003) argue that collaborative and cooperative processes are crucial for achieving deeper learning of content, greater development of interpersonal relationships, self-esteem, thinking, and critical capacity. Collaborative work enhances the ability to argue correctly, defend points of view, and learn how to respect and accept the perspectives of others. It can also promote motivation and a positive attitude towards subjects, school, teachers, and peers, leading to a reduction in school dropout rates and disciplinary problems. Collaborative writing is an example of a joint knowledge space in which students work as a community of learners to share their knowledge at the same time content is generated (Dubé, Bourhis, & Jacob, 2006).

As technology becomes more accessible, collaborative learning in online and blended study groups is increasingly becoming an instructional approach. Web 2.0 technologies and tools are seen as the means to support student-directed learning, especially when they occur in personalized learning platforms (Dabbagh & Kitsantas, 2012) and environments. This means that the teacher's role is as important as it is usually considered in a traditional classroom. Web 2.0 needs to be taught as any other skill, social software has to be incorporated into the classroom, and the learners have to be driven into the ability to make innovative uses of collaborative software digital tools (Parker & Chao, 2007). On the other hand, Prensky supports the idea that students should be motivated in the use of Web 2.0 tools, as much as possible, so that they get their things done, rather than be taught in the use of technology (2010) because they are Digital Natives being characterized as already possessing core digital abilities (Prensky, Digital Natives, Digital Immigrants, 2001).

Research has shown that learning is more effective when students express their thoughts in collaborative work, and their ideas are challenged and debated by others when facing a solution to a given problem (Johnson & Johnson, 1989). Chiong and Jovanovic (2012, p. 84) state that:

“The initial research findings related to online group work were predominantly optimistic (e.g., see McConnell, 2000; Stacey, 1999). This optimism stemmed largely from high expectations about the tools that Web-based learning platforms could offer for online collaborative learning (Jones & Steeples, 2002). More recent studies have shown, however, that while the technology does provide a solid platform for online collaboration, it does not guarantee successful learning (Laurillard, 2002). Accordingly, several research studies were conducted to identify the factors that influence (either positively or negatively) the success of collaboration in online study groups.”

These two researchers' work summarises the most important findings of other studies and is quite helpful in the approach to learning-centered classrooms which are conducted with pedagogical digital strategies.

One aspect, though, is pertinent and should be taken into consideration in this methodology: “Collaboration in small groups has been particularly recognized as both advantageous and appreciated by students. It has been shown that small groups enable students to identify and correct misconceptions more easily and quickly and to improve understanding of the topics being studied (Gayatan & McEwen, 2007)” as cited by Chiong and Jovanovic (2012, p. 82).

Furthermore, the use of collaborative strategies within digital platforms has better results if the students understand the online tools and platforms in usage, especially in students with more difficulties and who do not fit well in expository teaching models (Sulisworo, 2012). Likewise, teachers must have an updated knowledge of the digital tools, as well as of their rules and practices, specified for a good and safe performance. They must also be capable of solving common software and hardware difficulties in the classroom.

It is true, though, according to Miranda-Pinto, Araújo, Monteiro, and Osório (2022) that the use of technologies does not inherently imply interaction with others and that organizing the aspects that stimulate collaboration is necessary, just as much as stimulating the construction of learning environments that are rich in technology and promote positive child development, paying particular attention to the centrality of interpersonal relationships and the quality of the environments where these activities occur.

Assessment among peers and with rubrics

We assume that digital technologies and online platforms can play an important role in students' involvement and motivation. They provide independent, personalized learning environments and make the curriculum more inclusive and accessible. They can enhance the development of cognitive skills such as metacognition, problem-solving, critical thinking, creativity, self-learning strategies, social discussion skills, reflective thinking, teamwork, and other characteristics such as initiative, persistence, or curiosity. Incorporating technology into formative assessment practices is indispensable and should be done as a routine procedure to improve feedback on student learning. The existing frameworks of formative assessment are very pertinent in the teaching process and help qualify teaching performance.

Digital formative assessment, including all the features of digital learning settings, supports the assessment of student progress and provides information to be used as feedback so that teachers can modify the teaching and learning activities in which students are engaged (Looney, 2019). Assessment becomes 'formative' when evidence of learning is used by teachers and learners to adapt next steps in the learning process. As Looney recognizes, student collaboration and collective engagement in learning and assessment are important. For example, students may benefit from peer feedback through online discussion platforms. This researcher also argues that teachers do not need to have an in-depth understanding of technologies, but they do need to understand the affordances and limitations of the different tools and platforms to integrate them into lesson designs.

Using rubrics is an approach to provide feedback to students and to assist student self- and peer-assessment. Rubrics are tools for assessing learning. Clearly defined expectations and criteria to assess performance levels for each criterion support the consistency of assessment. They may also support students to reflect on and assess the quality of their own and others' work. Rubrics are particularly useful for assessing complex, contextualized problems (Company, et al., 2017). Definitely:

“A rubric is a multi-purpose scoring guide for assessing student products and performances. This tool works in several different ways to advance student learning and has great potential in particular for non-

traditional, first-generation, and minority students. In addition, rubrics improve teaching, contribute to sound assessment, and are an important source of information for program improvement. (Wolf & Stevens, 2007, p. 3)”

Specifically, rubrics establish the key criteria and make the whole process clearer for all those involved in the learning process. They guide the teaching targets, make assessments fair, and reduce students' complaints because they help anchor teachers' judgment of student performance.

Method

Participants

Our participants were in the 11th grade of a secondary school and were aged between sixteen and seventeen years old. There were forty-nine female students and twenty-one male students in the study. The classes they belonged to have been named A, B, and C for research purposes.

The students had varying levels of digital and writing skills, but generally, Classes A and B used to perform better in the classroom and had higher assessment mean scores than Class C.

The teachers/researchers in the study had different roles. One teacher was responsible for teaching all three classes and applying the research methods, while the other teacher/researcher was invited to collaborate as a critical friend and assist with data analysis.

Intervention in the classroom – procedures

Encouraging collaborative digital storytelling should be a part of a language teacher's practice. According to Kirsch (2016) it ought to be combined with dialogic teaching and exploratory discussions. Having this in mind we drew the intervention in three steps.

In Step 1, each group of students received a memory box containing several objects (e.g., a coin, a key, a small pocket book, a diamond earring, etc.), which was photographed and used as inspiration for a collaborative writing task. The group brainstormed, outlined their ideas, and drafted a story using the online platform Kludd which had to incorporate the objects into the plot. The final stories were revised collaboratively in a Google Doc and shared on Padlet for all the students in the three classes to read, as can be seen in the following [hyperlink](#). These strategies led the students to a convergent thinking ability. Convergent thinking can be developed in the process of assembling information, identifying the known, reapplying set techniques, and preserving the already known (Cropley, 2006). Once it uses the same similar cognitive process of problem-solving it has a fundamental relationship with language proficiency.

In Step 2, the stories were read aloud in class, allowing all students to appreciate the creativity and interest in the thirteen fictional stories. The theory has shown the interconnection between reading and writing, considering both skills as complementary elements of literacy, rather than separate, discrete, and independent ones (Weigle, 2014). Reading the stories led to the students' motivation and their interest in the development of a project where each class would produce an eBook, helping to improve digital skills, creativity, and knowledge sharing. Students were

divided into small groups with different tasks, such as Correction Brigades to correct linguistic and grammar mistakes, Illustrators to create illustrations for the book, and Editors to coordinate the publication in Issuu.

In Step 3 of the intervention, links to the three eBooks produced by each class were generated and shared with the school community at the end of the school year.

After all these steps we started comparing the writing scores of students in three moments: the 1st semester, the 1st half of the 2nd semester, and after the action research intervention in the 2nd half of the 2nd semester. We also conducted an inquiry to assess students' attitudes toward peer assessment using Google platforms.



Figure 1. eBooks

Findings and Discussion

It is commonly believed that due to technological progress, there is a negative impact on students' writing skills because of the availability of ready-made assignments and auto-correct features in online documents. Recently, Chat GPT has even been considered a threat to teachers' confidence in their students' knowledge. However, in our intervention, we focused on taking advantage of technology to enhance the writing skills of EFL students. After all, they are 21st-century digital natives and learners, so their writing environment is likely to occur online at all times rather than on physical paper.

Our teaching strategies, in a sequence of activities and actions, led to the collection of qualitative and quantitative data, which was triangulated to obtain better analysis. To develop creativity, collaboration, and digital competencies, we frequently stimulated critical reflection among students, alongside the teachers/researchers' observations and deliberations.

Before presenting the results, we would like to share the teacher's rubrics used to assess the writing competencies of the students to obtain the scores per activity. These rubrics can give an idea of how much the writing ability and techniques were developed.

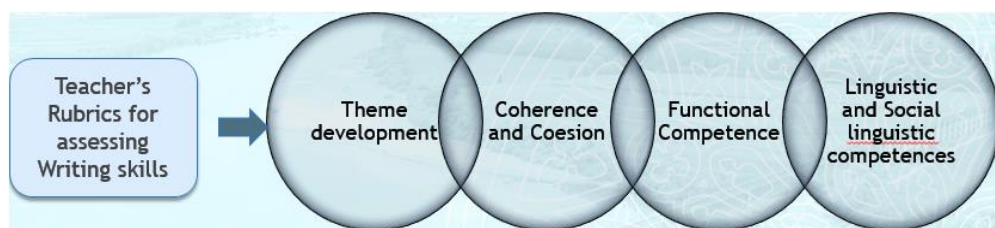


Figure 2. Teacher's rubrics

On the other hand, the students were subjected to both being assessed and assessing other group members using three rubrics.

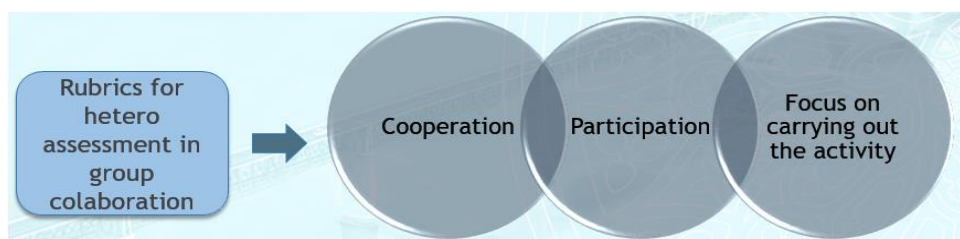


Figure 3. Rubrics for peer assessment

The following digital platforms were used as a strategy to improve student achievement and help boost the students' collaborative writing:

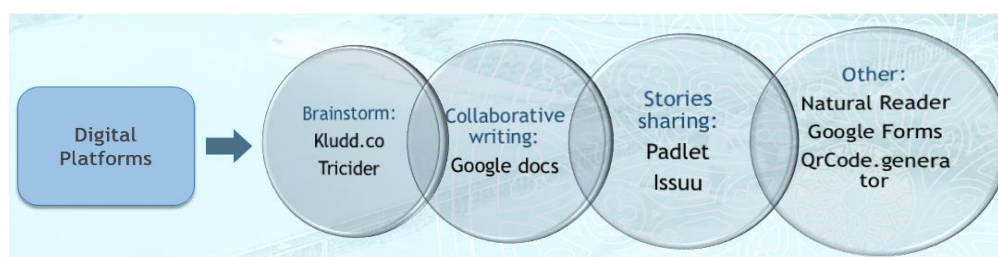


Figure 4. Digital platforms

In the subsequent Figures (5 and 6), the presented results were obtained by textual analysis of the final products using a rubric (Figure 2) as the scoring tool to evaluate performance. The rubric was based on a list of criteria describing the characteristics of the products and performances at varying levels of accomplishment. Figure 5 displays the scores obtained in summative writing tasks for three classes at three different moments:

- Moment 1: 1st semester
- Moment 2: 1st half of the 2nd semester (Moments 1 and 2 were the results of conventional teaching writing strategies to individually write extensive texts)
- Moment 3: 2nd half of the 2nd semester (Moment 3 was the result of our action-research intervention and the target of our study).

Zooming in on Figure 5, we can see that the means of the scores obtained by the students underwent a very positive evolution, especially in classes A and B. The difference between the first assessment process and the third is 5.50 values and 5.75 values, respectively. The mean achieved in the third assessment moment is 19.33 in both groups. In class C, the difference is not as considerable, reaching 3.77 values with a final mean of 15.92 values.

Although not reflected in this Figure, after analyzing the data collected from each group, we observed that the mode indicator in class A, in the first assessment moment, was 16.00 values, and in the second and third assessments was 20.00 values. In class B, the mode indicator in the first assessment moment was 11.00 values, in the second was 16.50, and in the third was 20.00 values. In contrast, in class C, whose students had some difficulties in their English competencies, the mode indicator was 11.00 in the first moment, 17.00 in the second, and in the third, there were three mode indicators: 20.00, 16.50, and 11.50 values.

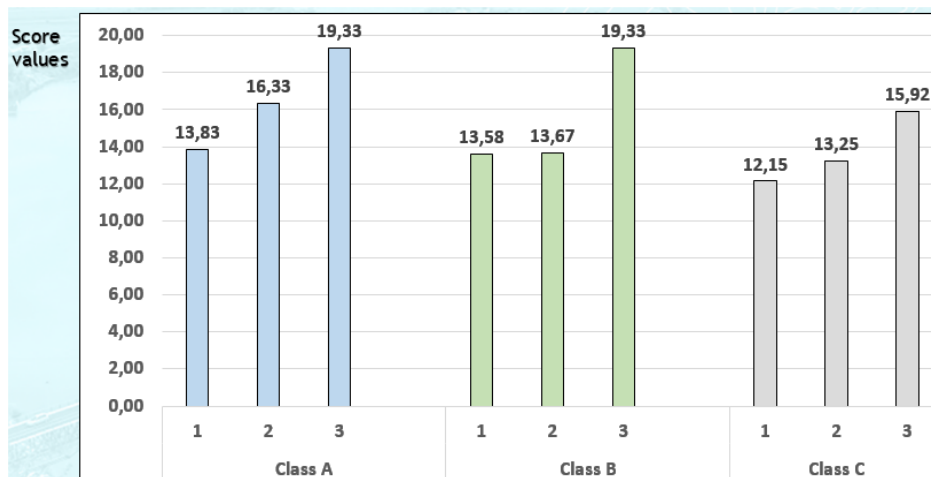


Figure 5. Means achieved by each class in three summative assessment moments

We know that a low standard deviation indicates that the values tend to be close to the mean, that is, the expected value, while a high standard deviation indicates that the values are spread out over a wider range. In our research, we were interested in finding out whether the students' scores had improved and if their results were clustered closely around the mean.

In Figure 6, we notice that the standard deviation dropped significantly in classes A and B. This fact is not verified in class C, with a greater dispersion throughout the entire assessment process. In classes A and B, the dispersion of the obtained scores by the students, in the third assessment moment, is very small, being situated in a spectrum of 3 values, while in class C is 8.50 values.

We also find that in classes A and B, the mean indicator, in the third assessment moment, is 19.00 values, while in class C is 11.50 values.

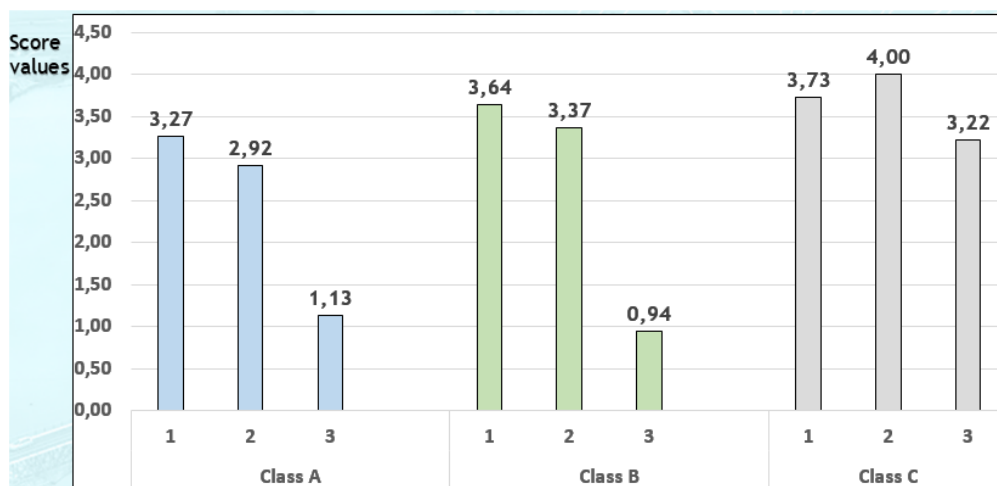


Figure 6. Standard deviation of the three classes in three assessment moments

According to Nicola and Amante (2021, p. 17), enhancing students' ability to learn is essential, and in this sense, the use of self-regulated learning procedures not only promotes cognitive, metacognitive, and motivational skills but also contributes

to the construction of more transparent and coherent evaluation criteria with learning objectives.

With these principles in mind, we also conducted a research inquiry considering the experience of peer assessment among the students. Sixty-two students answered the questionnaire, using a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

In Figure 7, it is clear that the students agreed that the use of rubrics improved their performance because they made it clear what was expected of them.

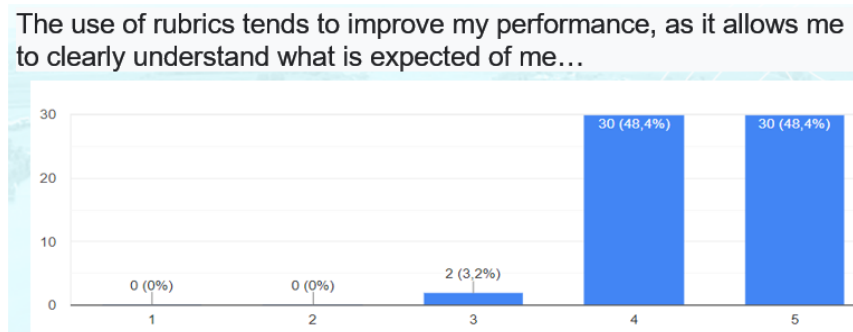


Figure 7. Students' opinion on the use of rubrics to assess their performance

In Figure 8, the students' improvement in collaboration, due to the use of rubrics, is visible.

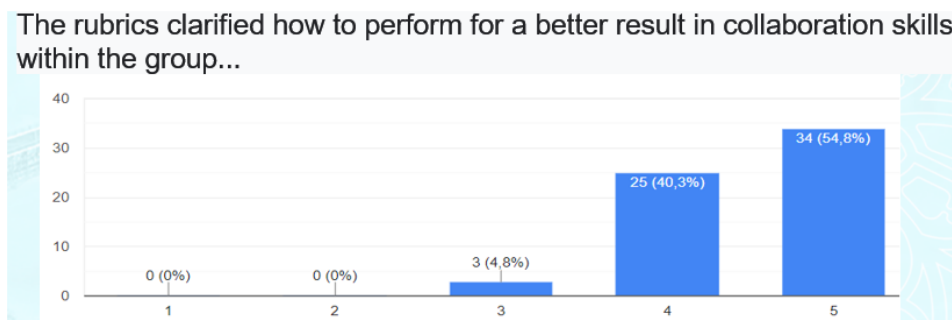


Figure 8. Students' opinion on the use of rubrics to assess their collaborative skills

In Figure 9 it can be seen that the majority of the students agreed that the experience of being evaluated, by another group member, caused them to reflect on their performance.

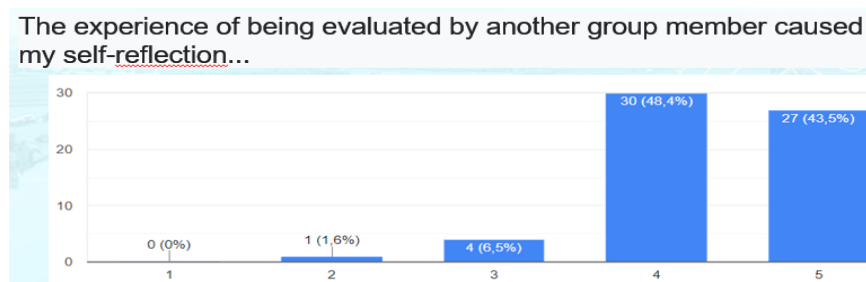


Figure 9. The students' opinion about being assessed by peers

Figure 10 shows that the results are not unanimous as not all the students preferred hetero-assessment over self-assessment, which had been conducted in previous moments of the school year. There are several explanations according to the students: peer friendship may sometimes influence and make the grades given by students less reliable; students may tend to give everyone the same grade to avoid peer conflict; students may feel ill-equipped to assess each other.

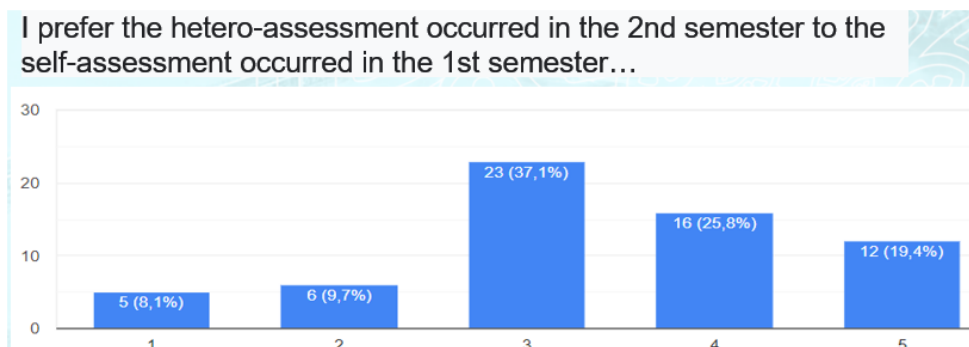


Figure 10. Students' opinion about the experience of peer assessment

Although our main results on peer assessment reveal more positive than negative outcomes, we must take into consideration Looney's clarifications:

“Some studies have found that student creativity may be hampered by peer comments, while others have shown that the quality of work is enhanced (Hurlburt, 2008; Laru, Näykki and Järvelä, 2012; Sluijsmans, Brand-Gruwel and Merriënboer, 2002; Tsai and Liang, 2009). Tseng and Tsai (2007), in a study of peer assessment in a high school science course, found that student learning outcomes were significantly improved at each step. However, Hou and Cheng (2012) suggest that teachers need to intervene in peer assessment in a timely fashion to promote positive interactions for knowledge construction. An international study by the OECD (2005) on classroom-based formative assessment underscores the importance of teaching students' competencies for self and peer assessment.” (Looney, 2019, p. 27)

Nonetheless, and most importantly, every teacher must consider the suitability of the rubric to the users and whether it meets the objectives of accurately assessing the final product. The rubric should provide appropriate feedback and opportunities for improvement. If the rubric is easy to use, compact, and in line with the strategy goal (Churches, 2019), then it should be well-designed and represent a powerful tool for learning.

In summary, the following assumptions of our study were confirmed:

- Digital strategies can boost teaching creativity and collaborative writing, which influences student achievement;
- Following specific steps in the writing process, such as outlining, brainstorming, drafting, revising, and editing, can lead to better writing skills;
- Collaborative writing promotes reflection, critical thinking, creativity, and knowledge sharing;
- Rubrics can be used to assess student performance accurately and provide a clear idea of the writing ability and techniques developed;

- Motivation to learn plays an essential role in the learning process, and involvement, adequacy of the task, and success in learning are crucial factors.

We may conclude that the digital pedagogical strategies that can contribute to the creative and collaborative writing competence, in a foreign language with secondary school students are learner-centered, engaging, and encouraging approaches taking into consideration their interests along with the curricular objectives. Valuing problem-solving, the student's reflection on the learning trajectory, and their commitment is equally a way to promote the impact that teachers hope for. Developing autonomous learners by setting achievable objectives and learning targets ensures the students' motivation for their language proficiency (Borg & Alshumaimeri, 2019).

This study contributes to linking the use of digital technologies to the development of collaborative writing describing the steps to educational practices which can be a stimulus to learn the linguistic rules and expand the vocabulary in EFL classrooms. It also highlights the positive impact, on the performance of students, when the assessment is executed among peers, applying rubrics for the competencies of cooperation and participation. Therefore, it provides teachers of a foreign language, as educational practitioners, with a few examples of tangible strategies and tools to bring creativity into the classroom.

Future research should explore how teachers can use multimedia and digital tools to improve writing instruction and also keep the engagement of all students in the composing process. It should also analyze the best practices for any teacher, no matter the school subject they teach, to consistently integrate the instruction and promotion of the digital competencies of students.

Although the study has some limitations, such as a small sample size, it is valid within the participants since the results are consistent with the research literature. This doesn't mean they could be generalized to a larger group of students. We are aware that our research has helped to identify some evidence of practice in the classroom in a hybrid teaching environment. However, we agree with Bennett (2011) as the effectiveness of our experience ultimately depends on learning conditions, and the impact of the same strategies may vary in different contexts from one implementation to the next.

Moreover, our perceptions indicate that gender or the students' motivation for using digital tools did not play a particular role in the study findings, but the possibility remains invalidated, so, including a longitudinal study, would be necessary to acknowledge the impacts we achieved as well as the other indicators which were not contemplated in our methodology.

Conclusion

The purpose of this research was to investigate whether teaching students using a collaborative writing method with digital and pedagogical strategies resulted in higher writing scores compared to conventional approaches. The study assumptions mentioned in the research method section were confirmed, and it can be concluded that teaching creativity and collaborative writing through digital platforms leads to significant benefits in the writing process, creativity, and writing achievements, such as learning linguistic rules and expanding vocabulary.

References

- Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, 3(3), 21-34. <https://doi.org/10.20472/TE.2015.3.3.002>.
- Bennett, R. E. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy, and Practice*, 18(1), 5-25. <http://dx.doi.org/10.1080/0969594X.2010.513678>
- Borg, S., & Alshumaimeri, Y. (2019). Language learner autonomy in a tertiary context: Teachers' beliefs and practices. *Language Teaching Research*, 23(1), 9-38. <https://doi.org/10.1177/1362168817725759>
- Chiong, C., & Jovanovic, J. (2012). Collaborative learning in online study groups: An evolutionary game theory perspective. *Journal of Information Technology Education Research*, 11(1), 81-101.
- Churches, A. (2019). A guide to formative and summative assessment and rubric development. *21st Century Project*. Retrieved from <https://docplayer.net/101289008-A-guide-to-formative-and-summative-assessment-and-rubric-development-by-andrew-churches.html>
- Company, P., Contero, M., Otey, J., Camba, J. D., Agost, M. J., & Pérez-López, D. (2017). Web-based system for adaptable rubrics: Case study on CAD assessment. *Educational Technology & Society*, 20(3), 24-41.
- Cropley, A. (2006). In praise of convergent thinking. *Creativity Research Journal*, 18(3), 391-404. http://dx.doi.org/10.1207/s15326934crj1803_13
- Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The Internet and Higher Education*, 15(1), 3-8. <https://doi.org/10.1016/j.iheduc.2011.06.002>
- Dubé, L., Bourhis, A., & Jacob, R. (2006). Towards a typology of virtual communities of practice. *Interdisciplinary Journal of Information, Knowledge and Management*, 1, 69-73. <http://dx.doi.org/10.28945/115>
- Esgrina, J. F., & Generale, R. J. (2023). Click interactive app for reading comprehension. *LLT Journal: A Journal on Language and Language Teaching*, 26(1), 18-30. <https://doi.org/10.24071/llt.v26i1.5626>
- Freitas, L. V., & Freitas, C. V. (2003). *Aprendizagem cooperativa*. Porto: Edições Asa.
- Johnson, D. W., & Johnson, R. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.
- Kirsch, C. (2016). Developing language skills through collaborative storytelling in iTEO. *Literacy Information and Computer Education Journal*, 6(2), 2254-2262. <http://dx.doi.org/10.20533/licej.2040.2589.2016.0298>
- Leitão, N. (2008). As palavras também saem das mãos. *Noesis: Dossier de Escrita Criativa*, 72, 30-33.
- Looney, J. (2019, September). *European schoolnet documents*. Retrieved from <http://www.eun.org/documents/411753/817341/Assess%40Learning+Literature+Review/be02d527-8c2f-45e3-9f75-2c5cd596261d>

- Miranda-Pinto, M., Araújo, C., Monteiro, A., & Osório, A. (2022). Positive development through technology (PTD) engagement checklist: Children/children and environment/facilitators. *RE@D - Revista de Educação a Distância e Elearning*, 5(1), 1-20. <https://doi.org/10.34627/redvol5iss1e202204>
- Morais, R. (2023 Junho 21). *Idea Puzzle - Introduction to the software*. Retrieved from Idea Puzzle <https://www.ideapuzzle.com/en/>
- Nicola, R. M., & Amante, L. (2021). Rubricas: Avaliação de desempenho orientada às competências na educação superior. *Estudos em Educação e Avaliação*, 32, 1-20. <https://doi.org/10.18222/ea.v32.7582>
- Parker, K. R., & Chao, J. T. (2007). Wiki as a teaching tool. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 57-72. <https://doi.org/10.28945/3131>
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-6.
- Prensky, M. (2010). *Teaching digital natives: Partnering for real learning*. Thousand Oaks, CA: Corwin Press.
- Rahimi, M., Yadollahi, S., & Wang, S. (2017). Effects of offline vs. online digital storytelling on the development of EFL learners' literacy skills. *Cogent Education*, 4(1). <https://doi.org/10.1080/2331186X.2017.1285531>
- Sulisworo, D. (2012). Designing the online collaborative learning using the wikispaces. *International Journal Of Emerging Technologies in Learning*, 7(1), 58-61. <https://doi.org/10.3991/ijet.v7i1.1863>
- Tecnam, Y. (2013). Are you digitized? Ways to provide motivation for ELLs using digital storytelling. *International Journal of Research Studies in Educational Technology*, 2(1), 25-34. <https://doi.org/10.5861/ijrset.2012.204>
- Weigle, S. (2014). Consideration for teaching second language writing. In M. Celce-Murcia, D. Brinton, & M. S. (Eds.), *Teaching English as a second foreign language* (pp. 222-237). Independence, KY: Heinle Cengage Learning.
- Wolf, K., & Stevens, E. (2007). The role of rubrics in advancing and assessing student learning. *The Journal of Effective Teaching*, 7(1), 3-14.