

Improving Writing Through Collaborative Learning and Google Docs

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Abstract

The main objective of this research was to establish if collaborative learning impacted on the ability to write short texts in English, in Google Docs. The students were enrolled in the careers offered by a public institute in Santo Domingo city, Ecuador. The group of students that participated in the study consisted of 56 students. Data obtained from a pre and posttest, and interviews were used to answer the research questions. At the end of the pedagogical implementation, there was a statistically significant difference in the posttest results in the same group, therefore, the collaborative learning to write short texts in Google Docs word processor had a positive impact on writing ability because the scores in the pretest were 4 while in the posttest were 7.73. In addition, the participants showed a positive and motivating general perception regarding the future use of collaborative learning to improve the writing ability. The pedagogical strategy of collaborative learning is suggested to the English Foreign Language Teachers (EFL) to include in the syllabus of the English courses, to contribute to the achievement of the learning objectives of the subject.

Keywords: Collaborative Writing, Writing Skill, Short Texts, Google Docs.

Resumen

El objetivo principal de esta investigación fue establecer si el aprendizaje colaborativo impactaba en la habilidad de escribir textos cortos en inglés con Google Docs. Los estudiantes fueron matriculados en las carreras que ofrece un instituto público de la ciudad de Santo Domingo en Ecuador. El grupo de estudiantes que participó en el estudio estuvo compuesto por 56 alumnos. Los datos obtenidos de una prueba previa y posterior, entrevistas y registros de aprendizaje se utilizaron para responder a las preguntas de investigación. Al final de la implementación pedagógica, hubo una diferencia estadísticamente significativa en los resultados del postest en el mismo grupo, por lo tanto, el aprendizaje colaborativo para escribir textos cortos en inglés apoyado en procesador texto Google Docs impactó positivamente en la habilidad de escritura porque las calificaciones en el pretest fueron de 4 mientras que el postest fueron 7.73. Además, los participantes mostraron una percepción general positiva y motivante respecto a utilizar en el futuro el aprendizaje colaborativo para mejorar la habilidad escritura. Se sugiere a los Docentes de Lengua Extranjera de Inglés (EFL) de la institución pública incluir en el plan de estudios de los cursos de inglés, la estrategia pedagógica del aprendizaje colaborativo, para contribuir al logro de los objetivos de aprendizaje de la asignatura.

Palabras clave: Escritura colaborativa, habilidad de escritura, textos cortos, Google Docs.

Improving Writing through Collaborative Learning and Google Docs

English has great importance worldwide, Matsuda and Matsuda (2017) mentioned that English speakers are different because of their cultural educational background as well as linguistic diversity. It allows interaction between people around the world, it is used in education, business, politics, and technology. Technological development and telecommunications have positioned English as the most widely used international lingua franca. English is used in digital communication over the internet. Mastering the English language gives opportunities to study in countries that register significant economic growth and development (Saputra, et al., 2019).

In Ecuador, according to the study carried out by Education First (EF) corresponding to the year 2019, reported that the level of knowledge of English has decreased in recent years. Ecuador ranks last in a list of 19 countries. The Ecuadorian government, through the Ministry of Education, implemented a study plan in 2016, to improve the command of English as a foreign language in public institutions. (Ministerio de Educación, 2016). However, the data shows that graduate students do not have the mandatory level of English and that teachers struggle to apply methodologies and strategies integrated into the curriculum (Sevy-Biloon et al., 2020).

Among the language skills, that is, listening, speaking, reading, and writing, writing is the most difficult skill to master compared to the others. Writing is a productive skill that requires the use of appropriate grammar and vocabulary, factors that lead to defining it as difficult (Sholihah, 2019).

English teachers know that changes should be made in the teaching of writing. Some studies indicate that the revision stage contributes to the writing process, therefore it is pertinent to include new methodological strategies that promote the improvement of this skill (Bustamante , 2019). Currently, the methodologies applied in learning are centered on the student, through the use of practical tasks that integrate technology.

Technological tools and applications help students improve their English skills by strengthening collaborative learning, since they help organize, transcribe, edit, define, transmit and provide feedback on perspectives and points of analysis according to the learning style (Alvarez , 2019).

Having applied the placement test adapted from Cambridge, indicated that the A2 level students of the public institute present difficulties in the ability to write in English. Learners have writing deficiencies when structuring sentences and basic texts. There is one investigation about the writing skill and the collaborative writing using Google Docs in Ecuador at the moment of applying this research. This research applied in the Ecuadorian educational system pointed out that using technological resource improve the writing skill according to Alvarez (2019). The COVID-19 pandemic caused that teaching learning process must be virtual classes which justified the use of technological resource such as Google Docs. This research established the relationship between collaborative learning and the improvement of writing ability using a technological tool in a pandemic context. It became significant contribution because of capable adaptation that has the teaching learning process. On the internet, 80% of the written content is in English (Peña, 2019), an aspect that supports the need to strengthen writing skills among students of the public institute since when accessing important academic information and pretending to carry out an analysis of an article, it necessarily implies writing notes or summaries about it.

Literature Review

To improve writing skills, collaborative learning is applied as an innovation strategy, and Google Docs is used as a technological tool to facilitate collaboration. In this section of the research, the theoretical aspects of the variables involved in this innovation are described. Dahlström and Boström (2017) evidenced a concern about the

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impact of digital resources on leaners' writing skills, focusing on students' texts. Regarding writing skills in English, Ariyanti (2016) emphasized that: "Writing has become one of important skills in English language acquistion since a long time ago" (p. 63). However, writing skills are defined as complex.

Writing Skills

In the research of Febriyanti and Dewi (2018), mentioned that: "Writing is very essential to be mastered. Also it is is one of the productive language skills and it gives students the opportunity to practice real-life activities in the classroom" (p. 110). This criterion is manifested by Rao (2017) who indicated "Writing in English is considered the most difficult skill because of its complexity in syntactic, sematic, morphological and phonological aspects" (p. 80). According to Ahmed (2016), writing is an essential but difficult ability to learn, a communication skill which is crutial in today's society.

Writing coherence and cohesion.

Coherence refers to the orderly and logical presentation of ideas in a text by an author, so that the reader can understand a message (Briesmaster & Etchegaray, 2017). Nevertheless, Faradhibah and Nur (2017) stated that most of the learners often are confused with their main idea and they tried to cover many ideas instead of focusing on the main idea. Furthermore, students do not have enough knowledge to see the difference between the main idea and the supporting idea.

Cohesion refers to the logical connectors used in the structuring of a text, applying grammatical and lexical aspects, such as personal or possessive pronouns, synonyms and punctuation. In the study by Ahmad et al. (2019),stated that cohesion establishes the semantic, grammatical and lexical link between the components of a text to facilitate its interpretation. On the other hand, Briesmaster and Etchegaray (2017)

mentioned that cohesion affects the interpretation of a writer's discourse as well, students should correctly produce cohesive texts to make sure others understand their writing.

Topic Sentence.

The topic sentence provides the reason for the student's opinion, and examines the reason from the audience's perspective and provides the outcome (Ferreti & Lewis, 2018). The topic sentence developed systematically in the first line of the paragraph. The language used is the language of analysis, conveying understanding and critical thinking (Yamin, 2019).

Supporting details.

The sentences that form the main body of the paragraph are called supporting sentences. Supporting Sentences are used to support the topic sentences of the paragraph. It is a support sentence that provides logic, and evidence; so that you can convince readers or at least convey your own message to the audience (Wali & Madani, 2020).

Punctuaction.

The language punctuation system has two functions. Its main purpose is to make coherent language to be read; its secondary function is to indicate the rhythm and speech. It roughly corresponds to the use of the super-subdivision function, but is different from the voice in that its comparison is taught in schools to some extent, and the specifications of punctuation are regulated by the publisher in its style manual (Crystal, 1987).

The main function of punctuation is to make the structure of the text completely clear. If this function is implemented properly, all ambiguity risks are automatically avoided, and the reader will be instructed to pause appropriately (Carey, 1978).

Collaborative Learning

Collaborative learning is used frequently in education around the world. This learning system seeks that heterogeneous groups of students cooperate to achieve common learning objectives in the shortest possible time and effectively (Qing, 2020). Collaborative learning is a model that, through the formation of workgroups, helps students understand and solve problems related to learning objectives (Rizki et al., 2020). Nevertheless, collaborative learning promotes the exchange of ideas, increases interest among participants, which leads to identifying solutions to problems, and develops critical thinking (Yan, 2019). However, Cross and Hitchcock (2007) cited that work in groups is not active because students preferred to start doing their activities independently or ask for information to teachers instead of collaborating with their peers among other classmates.

Considering the above, collaborative learning identified strengths and weaknesses among the students' groups who help each other to compensate and enhance the process and the language skills. In particular, the ability to write is beneficial, because the workgroups are made up of people who to a greater or lesser extent have competencies to complement the deficiencies of the other participants or increase the skills developed (Jahanbakhsh et al., 2017).

Collaborative Writing

Collaborative writing allows the creation of simple texts, through cooperation between individuals (Dafiani, 2019). Using this process helps to strengthen students' writing skills (Albán et al., 2019).Collaborative writing proves to be effective in the educational field, allowing students to establish connections, concepts, and reflection on ideas or arguments, which promotes the development of complex and critical thinking (Zioga & Bikos, 2020).Contemporary writing studies indicate that collaborative writing

IMPROVING WRITING THROUGH COLLABORATIVE LEARNING and peer feedback, performed in pairs or small groups, generate significant benefits for English learners (Hanan, 2017).

Khairul'Azam and Yamat (2019) concluded that collaborative writing helps improve writing ability because students who work in teams generate better-written texts. They did it in groups since they obtain new knowledge and ideas from other classmates who master a topic, which allows to better contextualize a situation or problem that is intended to develop. By contrast, Johnson and Johnson (2003) said that destructive strategies arisen when learners concentrate on a single view and they do not discuss neither attempt to impose their perspective. In the recent scenario, Khairul's affirmation is the one who supports the object of this research being essential the collaborative writing.

The use of collaborative writing among the students of the public institute seeks to improve writing skills, by forming pairs who write acceptable texts in English within the context of technological higher education. Higher technological education requires research and development of written projects, an aspect that justifies the need to improve writing skills in English, since most of the information used as bibliographic references are in that language, there lies the importance of implementing the use of collaborative writing.

Google Docs App

Google Docs is an online service from Google that allows to create, edit, and share documents on the web (Nithya & Selvi, 2017). Alkhataba et al., (2018) pointed out that: "Google Docs is a free web-based tool that looks like an online version of Microsoft Word that offers collaborative features which can be used to facilitate online collaborative writing" (p. 438). Maheshwary and Bhandari (2019) mentioned that: Google has the following advantages:

- Documents are stored online. This allows documents to be accessed, edited, published and shared from any computer or mobile device with internet access, to edit or publish them.
- 2. Google Docs is a free service.
- 3. The word processor is compatible with Word, Open Office, and other formats (Woodrich & Fan, 2017).

In the study prepared by Diab (2019), it is concluded that the development of writing ability through Google Docs could be recorded and the students working in groups can edit, comment, highlight, delete or add new words to improve the redaction of the texts which is attributed to the strategy of collaborative learning. Woodrich and Fan (2017) commented that: "Much of the existing literature agrees that students working on Google Docs were satisfied with the process" (p. 403-404). In the same way, Alsubaie and Ashuraidah (2017) agreed and indicated the learners demonstrated a significant level of uplifting disposition that upheld the chance of receiving Google Docs based learning device inside and outside the online classes. Nonetheless, Jolley (2019) claimed that while students get used to handle with new writing tools, they will obtain less scaffolding provided by the teacher.

The research of Widyastanti (2019) indicated that collaborative writing was successful when using Google Docs as a technological tool since it allowed online feedback of the arguments of the students who made up the work team. On the part of Rahmasari and Sidabalok (2020), it is concluded that Google Docs is suitable as an application to develop writing skills, especially with collaborative writing. Students stated that the use of Google Docs facilitates discussing, making comments, and reviewing the assigned texts, without talking to each other.

According to the research by Srur (2019), Google Docs facilitates collaborative work. The functions available in the service allow commenting, and writing texts in pairs or groups. A study revealed that students' ways of perceiving Google Docs as an effective and collaborative writing tool was formed during the course where the participants enjoyed and felt engaged integrating Google Docs as the web-based collaborative writing platform could facilitate the transformative process around autonomous and collaborative learning (Jeong, 2016). The results of this research contribute to the teaching learning process of English as Foreign Language of Ecuadorian higher education students.

This paper shows whether the students' participation in collaborative writing through Google Docs could improve their writing abilities and engage them using this techtool for learning purposes. The research questions that guided this study are the following:

- To what extent does writing improve through collaboration on Google docs?
 (quantitative)
- > 2. What are students' perspectives of the innovation? (qualitative)

Innovation

The COVID-19 pandemic caused mandatory confinement at a global level, an aspect that has meant that activities that were executed in person, are now done virtually. To communicate with the students, the researcher used the Google Classroom platform. The objective of the innovation was to apply the collaborative learning strategy among the students of a public institute to improve writing skills.

Concerning this research, it was carried out in the province of Santo Domingo de los Tsa'chilas, Santo Domingo de los Colorados city, legal address of the Public Technological Institute, an institution of higher education that offers higher technology level degrees to more than 2,100 students enrolled in this period 1-2020. The backward

design model (appendix H) based on the collaborative learning strategy was applied, organizing short text writing activities on aspects related to the careers in which students were enrolled in the institute such as planning and management of transport, logistics and storage, economics, child education, gastronomy, electricity, and mechanics, among others, especially focused on developing short texts. The application of this research lasted 5 weeks. The final product they created was a Pamphlet which was an unbound booklet focused on a single subject, the topic was related to the student's career projects. The pamphlets were shared on the platform.

With the aim of improving writing skills, the teacher explained the strategy and the tool that was used in the innovation. As a first point, it was explained that the strategy applied was collaborative learning, and specifically collaborative writing. The teacher explained that the execution of the strategy involved forming pairs of students, who as a team carried out short text writing activities, developing the same topic. In the context of the innovation, short texts were defined as written pieces of 50 to 100 words. Students of the pairs wrote a short text with a length of 50 words in the pretest (Appendix C) on the same topic. On Google docs, they shared the writing with their teammate. The partner reviewed the short text and made comments and suggestions about the sentences, vocabulary, coherence, and cohesion. To facilitate the visualization of the feedback made by the peer, the structure of the short text was: 1) original author, 2) title 3) content or development of the topic, 4) name of the peer reviewer, 5) text proposed by the peer reviewer, and 6) comments and suggestions from the peer reviewer using the rubric (Appendix D).

Finally, as it was collaborative writing, a single text with a length of 100 words in the posttest (Appendix G) was written and consolidated the contribution of ideas of the pairs. To promote the implementation of the collaborative learning strategy, the

researcher used Google Docs tool, where learners could share, edit, comment, add, deleted words in the short texts made it up in pairs according their professional career and then they sent to the teacher in Google classroom platform to be graded using the rubric (Appendix D). This aimed to develop teamwork, speed in solving problems and efficient management of technological tools. For example, with the used of the chat of the technological tool they made comments and suggestions to improve the text, thus avoided generating noise or actions that interrupt the other students.

Methodology

This action research began in October 2020 and it was developed in Santo Domingo city, Ecuador at a public institute. As a first step, students took a placement test to determine their level of English (Appendix A). In the second instance, students completed a form with demographic information (Appendix B). Then, they performed a writing ability assessment, that is, a pre-test (Appendix C) which, consisted of writing a short paragraph with a minimum of 50 words with topics related to their careers to know the level of writing ability, graded with the rubric (appendix D). The paragraph was written and shared in Google Docs, so that the teacher can made the corresponding review and feedback. The posttest (Appendix G) was graded with the same rubric (appendix D) where the teacher analyzed the students' writing in paragraphs that contains 100 words. Finally, they created a pamphlet containing information of the written posttest for new students which was displayed in the final class.

In qualitative and quantitative data analysis with which the differences between groups were analyzed, the qualitative data was collected throughout interviews. It is quantitative because the scores of the applied tests were obtained from pre and posttest performance tasks that were graded using a rubric to evaluate if there was an improvement in writing.

IMPROVING WRITING THROUGH COLLABORATIVE LEARNING Participants

This research was carried out at the public institute the level of the participants were A2. They enrolled to an English course according to the schedule given at the beginning of semester. The students presented the following characteristics: 56 students between the ages of 18 and 45. The female gender participants represent 71% and 29% were male. They were 56 Students, with whom 28 pairs were made at random but according to their career. The age of the participants was between 18 and 45 years old. The participants of this research domiciled in the province of Santo Domingo de los Tsa'chilas. Their mother tongue is Spanish and they are all from Ecuador. Their ethnic group is native Ecuadorian. Regarding access to technological tools, students had access to the English class through internet available at home, due to physical classes were eliminated to avoid COVID-19 contagious. According to their perspective, their knowledge of domain of technological tools is intermediate.

Instruments

The research questions were: 1. To what extent does writing improve through collaboration on Google docs? Pretest (Appendix C) and the rubric (Appendix D) were used to answer this question. Pretest (Appendix C) consisted in the elaboration of a short text project related to students' career with a length of 50 words made it in pairs where the students were matched according the career, and the rubric (Appendix D) which has three bands: Language, organization and content and each of them show the score from 1 (bad) 3 (good) and 5 (excellent) according to the student's performance. 2. What are students' perspectives of the innovation? The researcher used field notes (Appendix E) and the interviews (Appendix F). The interview (Appendix F) formulated with 4 questions in English or Spanish to the sample group to obtain the students' information about their perspectives, thoughts, feelings toward the innovation. The

interview was recorded on google meet to make the translation of the obtained data and then typed it to see their perspectives. The researcher interviewed 8 students according their stable internet connection also by their predisposition to always being active in class and showing interest in learning Another instrument the researcher used were field notes (Appendix E) to see the students' progress while doing or after the activities related to the innovation.

Posttest (Appendix G) which consisted in the elaboration of the same short text paragraph project related to students' career made previously but this time with a length of 100 words and it was performed in pairs where the students were joined according to their major. The same rubric (Appendix D) was applied to see students' improvement.

Data Analysis

In order to answer, analyze and interpret the research question 1, the data collected, the Statistics Package for the Social Studies SPSS was applied. The scores of the students before and after the test were recorded and, descriptive statistics were calculated: mean, median, standard deviation, and Cohen's d, to examine the differences between the scores obtained in the pre and posttest. Using the Cohen's d test, the impact of the collaborative learning strategy on writing ability was determined. The research question 2, to obtain the data, the teacher made interviews and then listened the recorded interviews, to write it down and translate the respective answers to each question. The teacher analyzed the students' responds which had positive impact on the students 'perception. After that, the researcher analyzed the coincidences of answers regarding to the collaborative learning through Google docs.

Ethical Considerations

It is relevant to indicate that before carrying out this innovation, authorization was requested from the Rector of the public institute. After authorization, students were verbally informed about the innovation. The names of the participants were not revealed in the investigation. It should be also mentioned that participation was voluntary and that assignments were not used in student's grades.

Results

This section presents the results obtained to establish the relationship between collaborative learning using Google Docs and writing short texts. The results answer the research questions defined in this study.

Demographic Information

The students' ages were between 18 and 25 years old, 93% of the students were young and 7% were adults. The innovation participants define themselves as native Ecuadorian by 91%, and 9 % were Afro Ecuadorian. Spanish is the native language of 93%, while Quichua represented the 7%. Access to technology and the internet is important in the context of virtual education, 96% of students reported having it, the other 4% did not have it. Eighty seven percent of the students have access to technology from home, 10% have access from other sources and 3% from school open Wi-fi signal. The participants stated that they have a basic knowledge of technology, which represents 56%, the 31% have an intermediate knowledge, 6% advance knowledge, 4% beginner knowledge and 3% no knowledge.

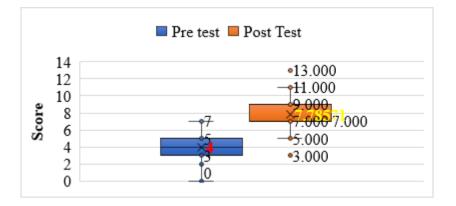
Regarding question 1: To what extent does writing improve through collaboration on Google docs? the results are the following:

The pretest and the posttest were scored on 15 points. In the pretest, the students achieved an average score of 4, while in the posttest, the score reached 7.79. The median obtained in the pretest was 4, that is to say that 50% of the students reached that qualification, in contrast in the posttest, the participants who obtained up to 7 or less than

that value amounted to 50%. Statistical evidence shows that collaborative learning using Google Docs contributed to improving writing skills.

Figure 1

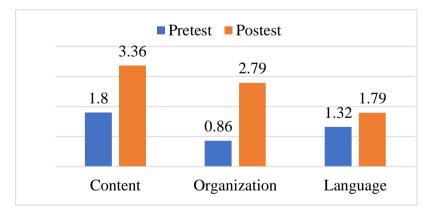
Comparative scores Pretest and Posttest



The evaluation criteria for writing ability were based on the content, organization and language in the structure of the short texts, which were evaluated on 5 points, to obtain an overall score of 15. The evaluation criterion called content, in the pretest reached 1.8 on average while in the posttest it was 3.36, that is, an improvement of 87%; the organization criterion improved by 22.5% and language by 35%.

Figure 2

Averages obtained in the evaluation criteria of the structure of written short texts.



It was established that the innovation had an impact on the improvement of writing, by using Cohen's d as a verification mechanism. For the assessment of d, Cohen

points out that values less than .20 have no effect; .21 to .49 have little effect; .50 to .70 show moderate effect; while values equal to or greater than .80 have a large effect.

Table 1

Calculation of Cohen's d

Description	n	Mean	Std. Deviation
Pre test	56	4,00	2,05
Post test	56	7,79	2,55

Cohen's d obtained is 2.50, which concludes that collaborative learning using Google Docs has a large effect on improving writing ability for students with an A2 level of English.

Regarding question 2: What are students' perspectives of the innovation?

To answer research question 2, 8 students, 4 women and 4 men, were interviewed. The students were chosen according their stable internet connection and the more proactive learners during the class. The interview consisted of 4 questions. The positive, negative comments and suggestions per question are as follows:

1. How did collaboration with your peers help you to improve?

Collaborative learning using Google Docs allowed the students to strengthen their grammar and vocabulary when writing short texts. It is important to mention that the perception of the participants was that working in pairs allowed to generate better results when developing or writing short texts around a topic designated by the teacher. They believed that two minds think better than one, so collaborative learning can be defined as an effective strategy to improve writing ability.

"It helped me a lot working with my classmate because at the beginning I did not have any idea of the process but the collaboration with my classmate helped me to understand." (S1)

"It helped me so much in improving the grammar with Google docs, every single time that I wrote my ideas my classmate organized." (S2)

"Worked together with my classmate helped me with the process of writing because I can understand English better in different things." (S3)

"Had the same classmate that we have in the career helped us so much. We both help each other and fixing any mistake." (S4)

2. In what ways was it helpful to improve your writing skill?

The Google Docs environment of self-correction of words in English that were not well written was one of the points that students highlight the most as an improvement in writing skills, since it allowed them to learn vocabulary and identify grammar errors. The use of the Google Docs word processor contributed to progressively improving writing skills, which indicated the advantages of integrating computer tools to the teaching-learning of English.

"I used to write in a very rare and different way, but with the elaboration of the paragraph I understand how I must write." (S1)

"Well, in many ways, for example, it helped us to take into account the spelling of the words." (S2)

"Now I can write better in English with the help of Google Docs and my classmate." (S3)

"Well, at the moment of writing together with my classmate she was fixing my errors and helping me to improve my writing also when I typed wrong Google docs suggested us in red underline word to check and correct the mistake, and when is underlined with blue to consider changing to another suggested word." (S4)

3. What kind of feedback did you receive from your peer?

The feedback was motivating, since the pairs made creative suggestions regarding the way of writing the short texts around the topic assigned by the teacher. They stated that the feedback in pairs was very useful, since they can know the mistakes made when writing a sentence, a phrase or an idiomatic expression, and since there is a high level of trust in the pair it was easier to accept the suggestion openly and comfortably.

"It was useful because her and I had different ideas and I learned from her and she learned from me." (S1)

"It was relevant because we help each other a lot." (S2)

"It was useful and motivating because when we were writing the paragraph my classmate told me it is not complicated." (S3)

"It was useful." (S4)

4. How did you feel collaborating with your classmate and giving feedback to her/him?

The participants felt good to work collaboratively, since they felt comfortable and there was a relationship of mutual help in the couple to develop and write the short texts.

"I felt very good, the little knowledge that I knew I shared to her and that helped a lot in the paragraph." (S1)

"To be honest, I felt very good. It was a pleasure to work in mutual collaboration." (S2)

"I felt good because is good to help each other in the paragraphs." (S3) "Well, I felt so good, at the moment I gave feedback in the mistakes and we had to change according to writing suggestions." (S4)

The results obtained significantly show the potential benefits of integrating collaborative learning supported by computer tools such as Google Docs to improve the ability to write in short texts in English for students with level A2.

Several authors were mentioned in the bibliographic review section, including Jahanbakhsh et al. (2017) who pointed out that collaborative learning is beneficial to improve writing ability, a finding that is confirmed in this study.

Also, the criterion expressed by Rao (2017) who indicate "Writing is English is considered the most difficult skill due to its complexity in syntactic, semantic, morphological and phonological aspects" (p.80). The researcher confirmed this because the learners who applied collaborative learning indicated that writing is English is a skill that has difficulties, as it is necessary to have basic knowledge of grammar and vocabulary or general knowledge about a topic, a situation that confirms the findings or Rao (2017).

Interviews with students about their perception of collaborative learning to improve reading ability using Google Docs showed that participants were able to write simple texts in cooperation as noted by Dafiani (2019). According to the students from the public institute who participated in the implementation of the innovation, grammar and vocabulary were aspects that improved with collaborative writing when using Google Docs, which confirms the success that the author Widyastanti (2019) mentioned in his study.

The statistical results show that there was a significant improvement in the ability to write in English of the students of the public institute. However, it is necessary to clarify certain findings. First, it was detected that the level of the participants' writing ability is low, since out of 15 points they obtained 4 points on average in the pretest,

which represents only 27% of the global value. Second, with the use of the collaborative learning strategy supported in Google Docs, a score of 7 points was reached in the post test, that is, 47% of the overall mark. The contrast of the two means showed improvement, but did not exclude the fact that the level of mastery of the writing ability is still unsatisfactory, it is implied by the need to continue with the use of the strategy, 5 weeks were insufficient to establish results more solid. Finally, it is important to highlight that evaluating and assessing the short texts in English developed by the students required a significant effort on the part of the teacher.

In other words, evaluating content, organization and language of different authors is applicable but it demands a lot of effort and time from the teacher.

Conclusion

The present research studied how students can improve their collaborative writing skills with the support of Google Docs as a technological resource. It involved comparing documents that were developed by students online. The results show that collaborative writing helps students improve their writing skills in English by performing different tasks, this strategy also strengthens vocabulary and grammar.

The result of the descriptive statistics indicated that the participants had a significant improvement in the pre and posttest of evaluation of writing ability considering the content, organization and language criteria, according to the rubric. This happened because, in the pretest, the students showed that they had insufficient knowledge to write short texts. In the posttest, it was shown that by using collaborative learning supported in Google Docs, the participants learned to write short texts in English, providing feedback and accepting comments to improve their final product.

EFL students had positive perspectives towards the application of collaborative learning for writing short texts supported by Google Docs. The majority of students'

responses indicated that it was motivating to collaborate with their peers from writing their short paragraphs. They also indicated that they felt comfortable receiving feedback from the pair and finally stated that they will apply Google Docs for future jobs and activities related to their professional careers.

Limitations

The present study had some limitations. Considering that this study was conducted in an English as a foreign language context, the main limitation was time. Furthermore, this study was limited to a large sample size (56 students) in single class and therefore the results and findings cannot be generalized to a full setting and further research will be needed to do so. Also, some of the pairs were not set accorded to their career due the lack of the students in some particular careers; however, the researcher tried to match students with similar majors.

Finally, as it is an investigation that involves evaluating and monitoring the progress of a productive skill such as writing, the load of time assigned to the feedback and evaluation process done by the teacher implies a greater investment of time, since the participants present a diversity of knowledge and preferences, when writing a short text in English, therefore standardizing evaluation criteria is significant. Therefore, the contribution of defining evaluation criteria, such as content, organization and language used are aspects to be considered positive in this study.

Recommendations

The most important recommendation for researchers who are willing to study the effects of collaborative learning in improving the ability to write short texts using Google Docs, has to do with application time. A short program may not have immediate effects; instead, collaborative learning for short text writing will generate more tangible and evident results when done over longer periods of time.

A second recommendation refers to considering the statistical results objectively, analyzing them from different perspectives, since, although in this study, improvement was shown in the intervened group, it is evident that the participants have a reduced level of writing in English, which was observed in the pre and posttest. With the above, the application of the innovation should be complemented by other learning instruments that the teacher identifies, to compensate the deficiencies in the students' knowledge.

Third, the teacher must look for adequate mechanisms to keep students motivated. This will depend on carrying out activities that connect with the interests of the students, regarding writing issues, to promote more significant advances in the use of collaborative learning and writing skills.

Finally, it is suggested that collaborative learning to improve writing skills by supporting the use of Google Docs should be included in the syllabus of English teachers, in order to have various methodologies and innovations that allow achieving the learning objectives in language.

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Appendix A

Placement test

Appendix B

Demographic Information Survey

Appendix C

Pretest

Appendix D

Rubric

Available upon request.

Appendix E

Teacher's field notes

Appendix F

Interview to evaluate students' attitudes towards writing English in Google Docs

Appendix F

Entrevista (Spanish version)

Appendix G

Post Test

Appendix H

Lesson plan