Ciencias de la Educación
Artículo de Investigación

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

Development of writing skill through technological appplications in virtual classes of english as a second language

Desenvolvimento da habilidade de escrita por meio de aplicativos tecnológicos em aulas virtuais de inglês como segunda língua

Carlos Alberto Menéndez-Marquínez [I]
cmenendez@utb.edu.ec
https://orcid.org/0000-0002-7637-5074

Lory Gabriela Marquinez-Mora [II]
lmarquinez@utb.edu.ec
https://orcid.org/0000-0003-1070-6448

Willians Armando Díaz-López [III]
wdiaz@utb.edu.ec
https://orcid.org/0000-0002-7181-1404

Rina Rosalinda Castañeda-Junco [III]
rcastaneda@utb.edu.ec
https://orcid.org/0000-0002-7328-9736

Correspondencia: cmenendez@utb.edu.ec

I.   Universidad Técnica de Babahoyo, Ecuador.
II. Universidad Técnica de Babahoyo, Ecuador.
III. Universidad Técnica de Babahoyo, Ecuador.
IV. Universidad Técnica de Babahoyo, Ecuador.

Resumen

El uso de aplicaciones tecnológicas es sumamente necesario en la enseñanza de una segunda lengua, el hecho de que la escritura sea una de las habilidades más complicadas para desarrollar por los estudiantes, hace imprescindible la necesidad de su implementación; en la presente investigación se tomó como objeto de estudio a los estudiantes de séptimo nivel, realizando dos grupos de investigación, a un paralelo de 40 estudiantes se implementaron las plataformas Padlet y Hemingway APP, para mejorar la habilidad de Writing en los estudiantes; Y a su vez se seleccionó otro paralelo de séptimo nivel, donde no se utilizaron aplicaciones tecnológicas para el desarrollo de esta habilidad, enseñándose de la manera tradicional. El tipo de investigación seleccionada es proposicional, se realizaron tres mediciones de avances, antes de empezar el modulo (Pre-Test) al terminar el primer parcial y al finalizar el segundo parcial; se realizaron a su vez entrevistas, midiendo el nivel de aceptación de ambos paralelos. Los resultados obtenidos cumplieron con los objetivos de la presente investigación, dando como resultado una diferencia sustancial entre la aplicación de ambos métodos.

Palabras clave: Tecnología; Writing; Padlet; Hemingway APP.

Abstract

The use of technological applications is extremely necessary in the teaching of a second language, the fact that writing is one of the most complicated skills to develop by students, makes the need for its implementation essential; In the present investigation, the seventh level students were taken as the object of study, carrying out two research groups, to a parallel of 40 students, the Padlet and Hemingway APP platforms were implemented, to improve the Writing ability in the students; And in turn, another seventh level parallel was selected, where technological applications were not used for the development of this skill, being taught in the traditional way. The type of research selected is propositional, three progress measurements were made before starting the module (Pre-Test) at the end of the first partial and at the end of the second partial; Interviews were also conducted, measuring the level of acceptance of both parallels. The results obtained met the objectives of this research, resulting in a substantial difference between the application of both methods.

Keywords: Technology; Writing; paddle; Hemingway APP.

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

Resumo

A utilização de aplicações tecnológicas é extremamente necessária no ensino de uma segunda língua, o facto de a escrita ser uma das competências mais complicadas de desenvolver pelos alunos, torna imprescindível a necessidade da sua implementação; Na presente investigação, tomaram-se como objecto de estudo os alunos do sétimo nível, realizando dois grupos de investigação, a um paralelo de 40 alunos, foram implementadas as plataformas Padlet e Hemingway APP, para melhorar a capacidade de escrita nos alunos; E, por sua vez, foi selecionado outro paralelo de sétimo nível, onde não foram utilizadas aplicações tecnológicas para o desenvolvimento dessa habilidade, sendo ensinada de forma tradicional. O tipo de pesquisa selecionada é propositiva, foram feitas três medições de progresso antes de iniciar o módulo (Pré-Teste) ao final da primeira parcial e ao final da segunda parcial; Também foram realizadas entrevistas, medindo o nível de aceitação de ambos os paralelos. Os resultados obtidos atenderam aos objetivos desta pesquisa, resultando em uma diferença substancial entre a aplicação de ambos os métodos.

Palavras-chave: Tecnologia; Escrita; remo; Aplicativo Hemingway.

Introduction

Using a traditional method, like the teacher centered pedagogy is making students feel bored and losing their enthusiasm when learning English. According to Emiliana (2017) "The teachers have less motivation for innovation in teaching." (p.2) The time we are living is the era of technology revolution, who has become an important aspect of life. This rapid development of technology has influenced many fields, including the educational and, consequently, the traditional ways of teaching and learning language have been affected.

Many researchers in their publications, like Northcott et al (2007), Dewi (2019), Ahmadi & Reza (2018), and others; have proved that new technologies help in expanding the learning experiences and makes the educational environment joyful and interesting. At the same time, students can be able to develop themselves, increase their motivation and improve their language learning skills. Basically, the main purpose of learning a foreign language is to be able to share their ideas and exchange information with others in real situations. Hence, educators notably are interested in shift

Carlos Alberto Menéndez Marquínez, Lory Gabriela Marquinez Mora, Willians Armando Díaz López, Rina Rosalinda Castañeda Junco

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

the use of traditional methods to use new technological methods which suit this generation in this digital world.

Considering the previous, teachers have seen how many foreign languages learners face writing as a challenge. Writing is a productive skill and is as important as speaking, listening or reading and when is dominated helps to produce a logical argument. It is a channel that helps people to express their thoughts and feelings.

EFL learners in Ecuador are not efficient in writing classes because they do not get great benefits from the traditional method since they think they should study just to pass their exam at the end of the semester. In a traditional classroom the writing process is teacher centered more than student centered because students write about a particular topic receiving guidance from their teacher. Hillocks (1986) conducted a meta-analysis in which he concluded that the traditional grammar instruction was not efficient in enhancing the writing skill.

On the other hand, a computer-based writing environment provides learners with a chance to communicate and interact with each other and with their teacher at the same time. Studies have shown that students become able to produce longer texts when they get engaged in technological education environments than texts which are produced by hand. In addition, students have opportunities to revise what they have written and improve the quality of their writings. Grejda and Hannafin (1992) state that using computers to learn how to write help to reduce learners' mistakes, and then this leads to improve the quality of writing in which it is easy for students to learn from their partners' works.

The Collaborative Learning Theory highlights the importance of communication and social interaction in learning in which teachers allocate students into groups and assign them questions to answer, or problems to solve. This theory emphasizes the group interaction, and learners should work collaboratively to achieve the goal of the learning process. Padlet or Hemingway App give the learners several chances to collaborate in which they become capable of sharing thoughts, feeling and educative information.

Padlet is a free social-networking site in which people can argue or discuss about certain topics and easily use multimedia elements to enhance their words. In this website, students can use their smartphones, iPad or tablets and is not necessary to have an account. They just go to this site and

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

click on build and wall icon and create a wall to immediately start posting. This is considered a good tool for real time collaboration in a virtual environment.

The Hemingway App makes writing bold and clear. This writing program helps writers produce concise content. The application helps develop writing abilities to produce better sounding writing for an audience. This App highlights common errors, it functions like an editor.

Materials and methods

Methodology

The type of research chosen was propositional, the purpose of this research is to determine the impact of the use of technological tools in the development of the writing skill. The research was made in the second cycle of the year two thousand twenty, during the months of November two thousand twenty to March two thousand twenty-one, in the Universidad Técnica de Babahoyo, located in the city of Babahoyo, province of Los Rios – Ecuador.

The research design was non-experimental because it carried out the observation and analysis of the classes and tools that the teachers of the seventh level of studies in the Language Center (CENID) of the Universidad Técnica de Babahoyo currently work to develop all the skills in their students, but mainly the writing skill. The research took into account the methods applied by the teachers and the tools used to engage, study or activate the writing skill.

For our research, eighty students were chosen from two different parallels of forty students in each one, all of them from the seventh level of studies at the Language Center. The samples were homogeneous, students had to be at least in their seventh semester of study. At the same time, students could be from any home location, without affecting the unit of analysis. The first parallel if going to be consider Group 1, in this group the teacher used technological tools to develop students' writing skill; the second parallel is going to be consider Group 2, in this parallel the teacher use the traditional way to develop students' writing skill.

Students who were repeating their level of studies were not chosen, in order to avoid having previously worked with didactic resources of those used in the Language Center. According to Villegas (2019) "When working with representative samples of populations, many researchers extrapolate their findings to what the entire population would theoretically want", the sample of this

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

research accomplished the average of the significance of a sample to be consider satisfactory in research in the educational field.

Therefore, the sample population for this analysis were eighty students, the same who belonged to two different parallels, one course of forty students did not use any of the tools proposed to enhance student's writing skill, the other course of forty students use two applications, Padlet and Hemingway APP, to improve their writing skill, the process was measure in different parts of the cycle:

- At the beginning of the level with a pre-test, where students had to show their level of writing skill before the use of the different techniques and tools.

- In the middle of the semester, after six weeks of studies, in a first term exam, students had to demonstrate the knowledge acquired during the first term

- At the end of the cycle, after 13 weeks of classes, students had to take the final exam of the cycle, where they had to applied what they have learned.

Within the data collection techniques, two of them were used, these being:

- Documentary analysis. - The learning results obtained by the students were evaluated once the technological tools had been applied, and they were compared with the learning results obtained by students in whom these technological tools had not been applied, to measure if there was a difference or improvement in the students' writing skill who used these technological tools.

- Survey. - Two types of survey were carried out; a survey to one course of forty students who belong to the study sample and who used Padlet and Hemingway APP during their study cycle, with closed or multiple-choice questions, in which an attempt were made to obtain information regarding the usefulness of the tools, as well as a satisfaction survey for the knowledge acquired and resources used (Group 1), the second survey was carried out to the other course of forty students who did not use technological tools to enhance students' writing skill during their study cycle, with closed questions, multiple choice or opinion, to be able to ask them about improvements that they consider necessary, as well as a satisfaction survey for the knowledge acquired and resources used. (Group 2)

The instruments used were the data record sheet and the questionnaire.

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

General Objective

Propose technological tools to improve students writing skill in the Language Center of the Universidad Técnica de Babahoyo.

Specific Objectives

1. Diagnose the current state of Writing Skill in students of Language Center of the UTB

2. Identify the influencing factors in the learning of the English language in the students of the UTB

3. Enhance students' writing skill in the Language Center of the UTB

4. Evaluate the results that the implementation of technological tools will generate in the students of the UTB, Babahoyo, 2021.

Results

The research present important information about the writing skill in the Language Center of the UTB's students.

First Part

The first part of the data collection started with a pre-test exam, the pre-test measured the prior knowledge of the students in the four skills, but prioritizing the information related to this research, we are going to analyze the question about the writing skill.

The group 1 and 2 had to write a composition about "Probable and Real situations" in the text the students had to use different vocabulary and grammar tenses required, above all the first and second conditional, the extension required was 150 words. The results are going to be analyzed per group initially, and then between each other.

Group 1

The 40 students took the pre-test, but not all the students completed the composition, in this case the grade assigned was zero, the question was rated out of ten. The scores obtained in this question was according to the following data table

Figure 1: Pre-Test Results

	Pre-Test Result		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	23	14	3

The average of the course was 6,5, more than the sixty percent of the students obtained a score over that grade. We have to consider that this did not measure the result of the appliance of technological tools to develop students' writing skill, because, it only considers the prior students' knowledge at the beginning of the cycle. But this is going to be important to analyze the results at the end of the level.

Group 2

The 40 students took the pre-test, but not all the students completed the composition, in this case the grade assigned was zero, the question was rated out of ten. The scores obtained in this question was according to the following data table
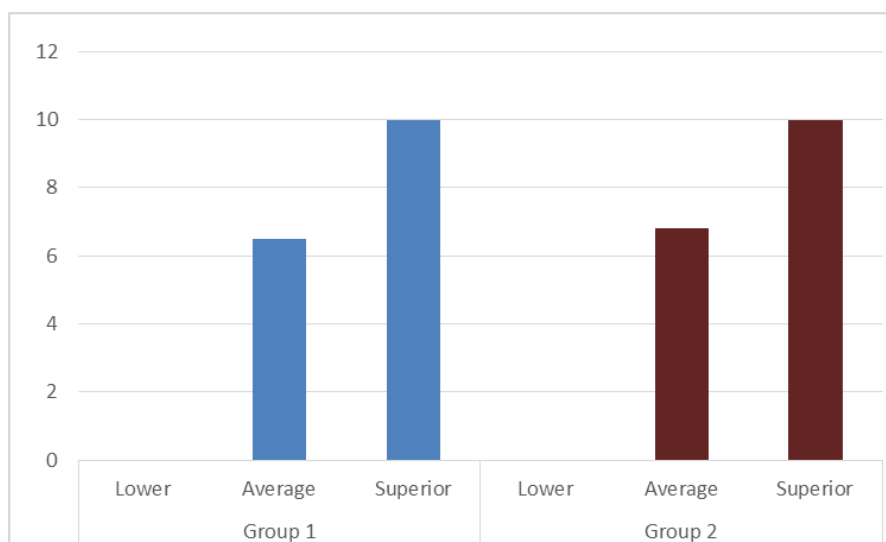
Figure 2: Pre-Test results

	Pre-Test Result		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	25	11	4

In this case the information is very similar to the Group 1, not all the students wrote the composition, and at least one of them obtained the maximum grade. The most relevant date is that the average was 6,9, a little bit better in Group 2, there is not a big difference, but it will be considered at the end that students that learnt with the traditional tools showed a better average in the writing skill at the beginning of the cycle.

Figure 3: Pre-Test Result of group 1 and 2

Second Part

At the end of the first term, students took a summative exam, where they were evaluated about the four skills, the writing skill was evaluated through a composition of 160 words about "Environmental Issues" using the grammar tenses and vocabulary learnt. In this case, the results obtained were significantly different between Group 1 and 2.

Group 1

The students have to create the composition in the platform Padlet, they used the web page many times during the term, and also practice about an environmental issue in Hemingway APP, where they practice about air pollution, in the web application students practice and received automatically feedback about the mistakes in the thesis statement, and the supporting ideas necessaries. Also, the grammar tenses required, and the vocabulary according to the topic.

In the First Term Exam, the second part of the data collection for this research, students had to write about the Global Warming, the skill was evaluated over 10 points. In this case, all the students wrote the compositions, obviously not all of them made an excellent job, but they showed an improvement according to the Pre-Test exam. The information of the grades obtained are showed in the next tables:

Figure 4: First Term Exam Results 1-Group 1

	Environmental Issue composition		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	5	22	13

In this case all the students completed the composition, but not all of them in a correct way, the worst grade was 3, and the best was 10, the average was 8,1. As it was expressed at the beginning of this second part, the results show a significantly improvement. The most part of the students obtained at least 7 points, and thirteen of them got between 9 and 10. This leads that the average of the course increase more than one point comparing it with the results of the pre-test.

Group 2

The students of this group also had to write a composition about an Environmental Issue, and they practiced about this topic with the same as Group 1, but in this case the teacher used the traditional method. Students wrote a composition during the class, they read in class and received feedback from their teacher.

The results obtained in this group are explained in the following tables:

Figure 5: First Term Exam Results 1 - Group 2

|	Environmental Issue composition		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	12	26	2

Likewise, not all the students completed the composition like in the pre-test, therefore the worst grade was 0, and the best was 9,5, the average was 7,2. Comparing the Pre-Test Results and the First term Exam results, the average of the students presents an increase, but not significantly, in this case

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

any student obtained the best grade (ten), and a big portion of the students (30%) obtained less than seven points in their composition.
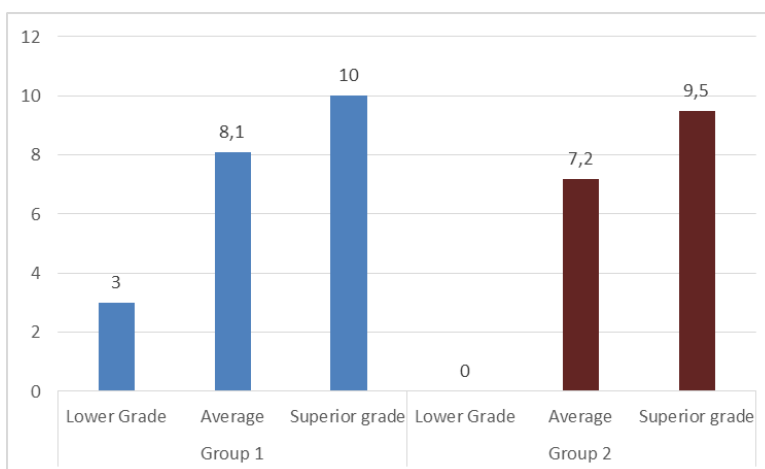
In the following graphics we are going to compare group 1 and 2 in both types of results

First term exam results 1
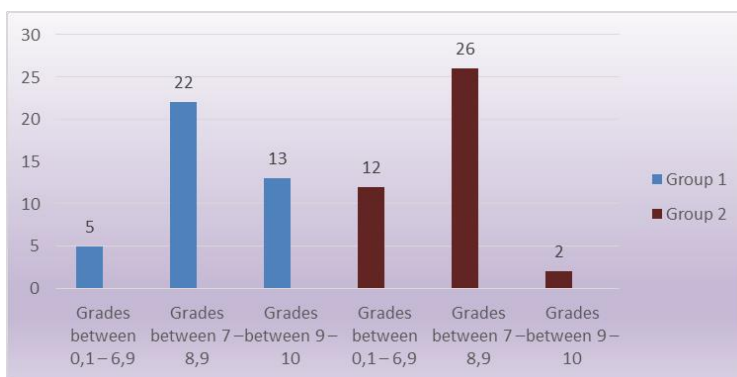
Figure 6: First Term Exam Result 1- Groups 1 and 2

First Term Exam Results 2

Figure 7: First Term Exam Result 2- Groups 1 and 2

Third part

At the end of the cycle the students had to take a summative assessment about the topics learnt in the second term, the question was a composition of 160 words about a report, they had to write describing the most impactful news they have seen.

Group 1

The Group 1 had to make the composition in the Padlet platform, and also, they practiced this topic in Padlet and Hemingway APP, where they receive peer feedback as well teacher's feedback.

The grades obtained in the Second Term Exam were:

Figure 8: Second Term Exam Results 1 - Group 1

	The most shocking news		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	3	16	21

The results of the second term exam show a marked trend, the improvement of the students was consistent. The average increased respect the first term results, the quantity of the students with bad grades decreased, and the percent of students with grades over nine was of 53%. The worst grade in this composition was 5, and the best one continues being 10, the average rose to 8,6.

Group 2

The Group 2 topic was the same, also during the classes students practice about passive voice describing different things. The results presented for the students were:

Figure 9: Second Term Exam Results 1 - Group 2

	The most shocking news		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

	The most shocking news		
	Grades between 0,1 – 6,9	*Grades between 7 – 8,9*	*Grades between 9 – 10*
Quantity of students	9	25	6

The results show an improvement related to the beginning of the course, the students below 7 points are less, and the average also is better than at the beginning. The worst grade in this composition was 3, and the best composition was graded with 10, the average increased to 7,5.

Comparing both groups the following graphs are obtained
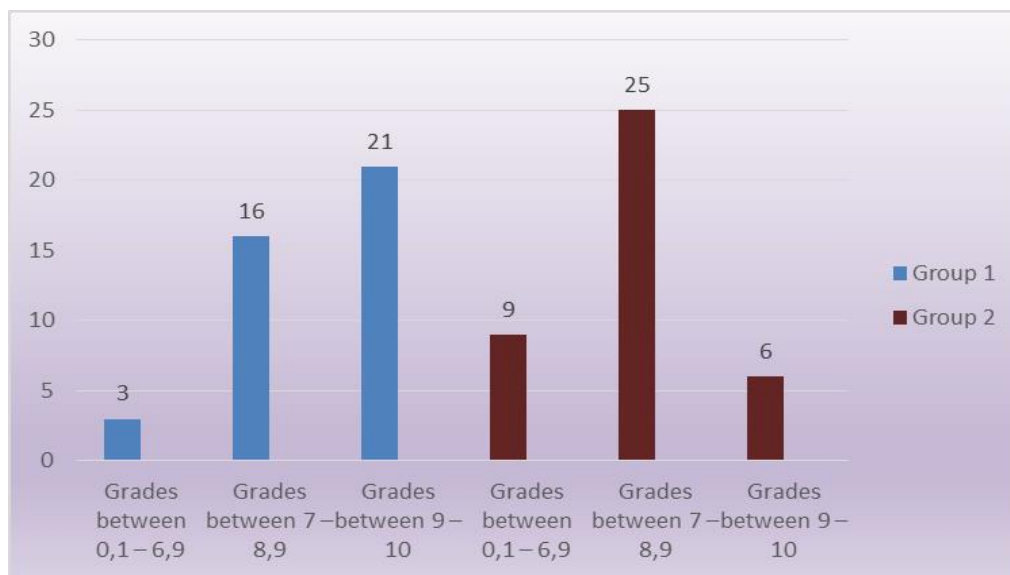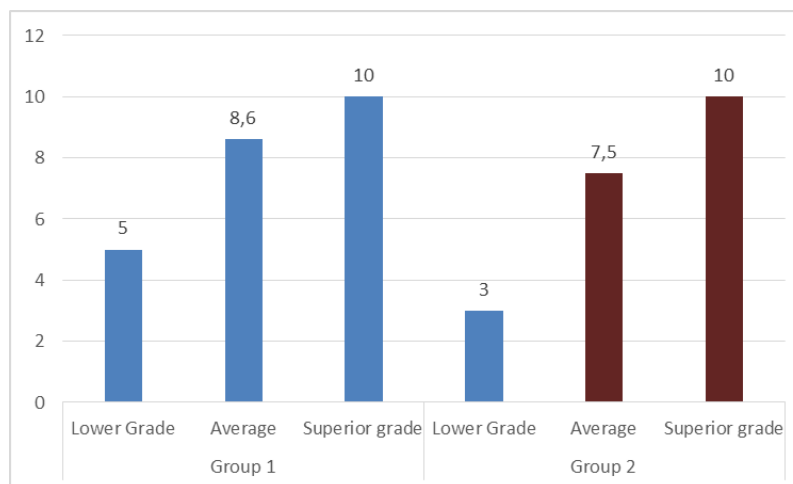
Second Term Exam Results 1

Figure 10: Second Term Exam Result 1- Groups 1 and 2

Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109
Carlos Alberto Menéndez Marquínez, Lory Gabriela Marquinez Mora, Willians Armando Díaz López, Rina Rosalinda Castañeda Junco

Second Term Exam Results 2

Figure 11: Second Term Exam Result 2- Groups 1 and 2

The difference between the first and second group are greater in this final part, although both groups improved the writing skill, the first group did it in a most marked form, the process' results were supported during the course of the level

Discussion

The appliance of technological applications in education has come to stay, and the writing skill is not the exception. The use of this kind of tools makes the process of teach easier and also the process of learn motivating. We have to clarify that the use of tools did not make students work less hours, by contrast, it means that planning is harder, the teachers have to be permanently studying, planning, practicing. But the purpose of all the teachers is the learning of their students, and definitely the technological tools make it easier. In the Universidad Técnica de Babahoyo where this research took place, not all the students have a good chance to use technological tools because of the access to the internet, this would be a thing to consider if this method will be applied to all the students.

According to Reddy and Bubonia (2020) "The purpose of using technology in education has shifted from merely delivering course content to aiding students in learning the content". Applications like Padlet and Hemingway APP has been improving the way students learn writing for many years, and these applications are constantly changing, adapting to the new requirements. Of course, they offer

the premium version, but also give the opportunity to use the free version that allow to use it, and are still amazing.

Liesa-Orús et al. (2020) expressed that "The potential offered by ICTs is not only instrumental and, from a practical point viewpoint, this must be seen in the acquisition of skills that consolidate significant learning that in turn allows inclusion of science, innovation and technology into education" this matches with the results obtained in this research. Technological tools make students learn in a more educational way, enhance students' skills since an engage method, making students feel motivated to study, and consequently, developing meaningful learning.

In general, this study had positive results, students learn better with the use of technological tools, they have the opportunity to interact with their classmates and teacher in more didactic ways, they are available to receive more than one feedback, because they can receive application feedback, peer feedback and the traditional feedback (teachers' feedback).

The survey applied to the students in Group 1 about the useful of the technological applications and their feelings about the convenience of use this kind of tools was extremely clear, students recognize these platforms make them study more, but also, they are conscious that improved their writing skill.

The survey applied to the Group 2 show the necessity to make students feel motivated. Students recognize the necessity of use different tools to develop the skills, they fell that lack of motivation is one of the most important problem in studying English as a foreign Language, and think that technological applications would give them tools to improve their English skills.

Conclusions

The use of technological applications has become essential in the teacher daily life, the virtuality has made impossible to teach a second language in the traditional form, students cannot be concentrated in a subject where they do not feel comfortable in the virtual classes. Writing skill is for most of the students one of the most complicated skill, and Hemingway and Padlet give the students the opportunity to develop this skill.

The objective of this research is answered in a forceful way, and demonstrate it is necessary to apply not only in one level and only to some part of the students, the technological applications to develop writing skill is indispensable in the virtual environment.

Carlos Alberto Menéndez Marquínez, Lory Gabriela Marquinez Mora, Willians Armando Díaz López, Rina Rosalinda Castañeda Junco

References

1. Ahmadi, D., & Reza, M. (2018). The use of technology in English language learning: A literature review. International Journal of Research in English Education, 3(2), 115-125. http://ijreeonline.com/article-1-120-en.html

2. Dewi, P. (2019). Teaching English for young learners through ICTs. Humanitatis: Journal of Language and Literature, 6(1), 11-24. DOI: https://doi.org/10.30812/humanitatis.v6i1.612

3. Emaliana, I. (2017). Teacher-centered or student-centered learning approach to promote learning?. Jurnal Sosial Humaniora (JSH), 10(2), 59-70. DOI: http://dx.doi.org/10.12962/j24433527.v10i2.2161

4. Fansury, A. H., Januarty, R., & Ali Wira Rahman, S. (2020). Digital Content for Millennial Generations: Teaching the English Foreign Language Learner on COVID-19 Pandemic. Journal of Southwest Jiaotong University, 55(3). Retrieved from http://jsju.org/index.php/journal/article/view/630

5. Grejda, G. F., & Hannafin, M.J. (1992). Effects of Word Processing on Sixth Graders' Holistic Writing and Revisions. *The Journal of Educational Research, 85 (3),* 144-149.

6. Haerazi, H., Utama, I. M. P., & Hidayatullah, H. (2020). Mobile applications to improve English writing skills viewed from critical thinking ability for pre-service teachers. International Journal of Interactive Mobile Technologies (iJIM), 14(07), 58-72. Retrieved from https://onlinejour.journals.publicknowledgeproject.org/index.php/i-jim/article/view/11900

7. Hillocks, G., Jr. (1985). Research on Written Composition: New Directions for Teaching. Urbana, IL: *National Conference on Research in English and ERIC.*

8. Liesa-Orús, M., Latorre-Cosculluela, C., Vázquez-Toledo, S., & Sierra-Sánchez, V. (2020). The technological challenge facing higher education professors: Perceptions of ICT tools for developing 21st century skills. Sustainability, 12(13), 5339. DOI: https://doi.org/10.3390/su12135339

9. Northcott, B., Miliszewska, I., & Dakich, E. (2007). ICT for (I) nspiring (C) reative (T) hinking. ICT: Providing Choices for Learners and Learning, Ascilite Singapore Proceedings, 761-768.

Carlos Alberto Menéndez Marquínez, Lory Gabriela Marquinez Mora, Willians Armando Díaz López, Rina Rosalinda Castañeda Junco

Dom. Cien., ISSN: 2477-8818
Vol. 8, núm. 4. Octubre-Diciembre, 2022, pp. 93-109

Desarrollo de la habilidad de Writing a través de aplicaciones tecnológicas en clases virtuales de inglés como segunda lengua

10. https://www.ascilite.org/conferences/singapore07/procs/northcott.pdf

11. Reddy, S. L., & Bubonia, J. (2020). Technology in education: Learning opportunities for teachers and students. Journal of Family & Consumer Sciences, 112(1), 46-50. DOI: https://doi.org/10.14307/JFCS112.1.46

12. Villegas Zamora, D. A. (2019). La importancia de la estadística aplicada para la toma de decisiones en Marketing. Revista Investigación y Negocios, 12(20), 31-44. Retrieved from:http://www.scielo.org.bo/scielo.php?pid=S2521-27372019000200004&script=sci_arttext

13. Wang, X., Shen, L., & Lu, X. (2016). Journal between Peer Learners: An Innovative Project to Motivate EFL Writers, RELC Journal, 47(2), 1-8.