





Propuesta didáctica mediante el uso de la herramienta digital Nearpod para la enseñanza de grafemas

Didactic proposal using the digital tool Nearpod for teaching graphemes

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Ciencia Digital
Editorial



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Palabras claves:

Grafemas,
Aprendizajes,
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Gamificación,
Nearpod.

Resumen

Introducción: La comunicación escrita es importante para que el ser humano pueda comprender y ampliar sus conocimientos, he ahí la relevancia de utilizar correctamente los grafemas para que el mensaje pueda ser entendido de manera eficaz. Se considera sumamente relevante la incorporación de las TIC en la educación formal para enriquecer los aprendizajes desarrollados en la llamada sociedad del conocimiento. A partir del uso de ciertas herramientas digitales, como es el caso de Nearpod, se pueden elaborar propuestas educativas digitales que permitan el enriquecimiento de los aprendizajes de los estudiantes. **Objetivo:** Mejorar los aprendizajes de ciertos grafemas por parte de los estudiantes del 8° año de un colegio fiscal del Ecuador mediante el diseño de una propuesta de gamificación con el uso de la herramienta digital Nearpod. **Metodología:** La investigación adoptó una perspectiva mixta recuperando aportes de los enfoques cualitativo y cuantitativo. Se trabajó con dos técnicas de recolección de información: la observación y la encuesta. Mediante la información obtenida se elaboró un diagnóstico inicial para conocer las dificultades que presentaban los estudiantes en relación con el uso de los grafemas. Se elaboró además, un registro anecdótico, en base a la observación de clases, lo cual permitió ampliar el diagnóstico. El análisis de la información recolectada (a 104 estudiantes y a 5 docentes del área temática) permitió diseñar la propuesta didáctica construida mediante la herramienta digital Nearpod. **Resultados:** Los resultados obtenidos en la investigación mediante la aplicación de la propuesta de gamificación muestran que un 90 % de la muestra mejoró el uso de los grafemas. Se concluyó que Nearpod es una excelente herramienta digital para elaborar propuestas didácticas, en el contexto de la investigación realizada, elaborar propuestas que tiendan a mejorar el uso de los grafemas B, V, S, C, G, J y H. Esta herramienta digital permitió a los estudiantes aprender de manera interactiva con diversas actividades de gamificación que ayudaron a afianzar los conocimientos. **Conclusión:** Se concluye que las herramientas digitales enriquecen los procesos de enseñanza y aprendizaje de determinados contenidos, en este caso, de los grafemas del idioma español; pueden integrarse en diversas propuestas que se diseñen en el contexto educativo tendientes a potenciar nuevas habilidades cognitivas de orden superior. **Área de**

estudio general: Lengua y Literatura. **Área de estudio específica:** Los grafemas B, V, S, C, G, J y H.

Keywords:

Graphemes,
Learning, Didactic
Strategies,
Gamification,
Nearpod.

Abstract

Introduction: Written communication is important so that human beings can understand and expand their knowledge; that is the importance of using graphemes correctly so that the message can be understood effectively. The incorporation of ICT in formal education is considered extremely relevant to enrich the learning developed in the so-called knowledge society. From the use of certain digital tools, such as Nearpod, digital educational proposals can be developed that allow the enrichment of students' learning. **Objective:** Improve the learning of certain graphemes by 8th year students at a public school in Ecuador through the design of a gamification proposal with the use of the digital tool Nearpod. **Methodology:** The research adopted a mixed perspective recovering contributions from qualitative and quantitative approaches. The research was conducted with two information collection techniques: observation and survey. Using the information obtained, an initial diagnosis was made to know the difficulties that the students presented in relation to the use of graphemes. An anecdotal record was also prepared, based on class observation, which allowed the diagnosis to be expanded. The analysis of the information collected (from 104 students and 5 teachers in the thematic area) allowed the design of the didactic proposal built using the Nearpod digital tool. **Results:** The results obtained in the research through the application of the gamification proposal show that 90% of the sample improved the use of graphemes. It was concluded that Nearpod is an excellent digital tool to develop didactic proposals, in the context of the research conducted, to develop proposals that tend to improve the use of the graphemes B, V, S, C, G, J and H. This digital tool allowed students to learn interactively with various gamification activities that helped consolidate knowledge. **Conclusion:** It is concluded that digital tools enrich the teaching and learning processes of certain contents, in this case, the graphemes of the Spanish language; They can be integrated into various proposals that are designed in the educational context aimed at promoting new higher-order cognitive skills. **General study area:** Language and Literature. **Specific area of study:** Graphemes B, V, S, C, G, J and H.

Introduction

The following article shares the results of a research carried out by teachers in the 8th year Language and Literature area of a public school in Ecuador. The theme that guided the research began to be built from the identification of confusions that 8th year students presented in certain graphemes, a situation that made it difficult for them to understand texts written in the Spanish language. Based on the teaching experience in the area of Language and Literature, it has been evident that the difficulties that students present occur mainly in the confusion of the following graphemes: B and V, C and S, G and J and in the use of the H, thus becoming a problem that needed to be analyzed in order to propose alternatives for improvement in such a situation. Based on the results obtained in the diagnostic stage of the research, a gamification proposal was designed and implemented through the use of the Nearpod digital tool. Additionally, an evaluation of the scope of the gamification proposal implemented in the 8th year students of the educational institution was carried out.

Also within the framework of investigative work, several bibliographic documents have been reviewed, including scientific articles, websites and research hosted in digital repositories, which have allowed us to deepen certain theoretical categories that enriched the research process.

Changes and challenges in education. Teaching strategies through the use of digital tools

Information and Communication Technologies (ICT) are tools that enable students, teachers and school administrators to improve education through a variety of educational resources, including online learning materials, educational videos and interactive games, among others. As Valotta (2014) states: “planning a proposal that includes information and communication technologies involves making curricular (contents, learning objectives, prior knowledge), and pedagogical (activities, productions, evaluation strategies) decisions. and technological (selection and use of resources)” (p. 2).

One of the current challenges that teachers face is related to the possibility of guiding, guiding, tutoring the teaching processes, that is, looking for ways to reach the student and design learning scenarios that enable selection, analysis, the reflection of the information available on the web, in an attempt to transform it into meaningful knowledge, as stated by Diaz (2013):

It is relatively easy to recognize that these technologies have changed the way of thinking and the skills of students, to recognize that school work can no longer be limited to the front class, to the book, blackboard and notebook. Today's children and young people live in a multimedia environment; they are the result of a training process in which they are multi-stimulated. (p.6)

Information and Communication Technologies (ICT) are being incorporated into the educational institutional context worldwide, therefore, it is important to remember that the incorporation of these technologies is not limited to obtaining tools such as computer equipment and programs. , but the most important thing is to create an educational use of them, developing didactic strategies that guide the training process.

According to Tobón (2010), teaching strategies are a set of actions that are planned and implemented in an orderly manner to achieve a certain purpose. In short, it is an action plan that the teacher implements to achieve student learning.

We also return to contributions from Rosales (2017), in relation to the definition that he builds on didactic strategies. For the author “they constitute formidable tools to develop students' critical and creative thinking while they learn the contents and topics of each subject” (p. 1). A teaching strategy is a set of planned and adaptable actions that are used to improve teaching and learning processes. Its support is based on the ability to adapt to student needs, match educational objectives, and take into account a variety of learning styles. Teaching strategies aim to actively engage students, help them better understand and develop critical skills.

According to Guerrero et al. (2019) and Lucero & Velasteguí (2018), a teaching strategy can be defined as the activity that is carried out in a premeditated, systematic and orderly manner using a variety of teaching resources so that students understand the contents. Currently, there are a wide variety of teaching strategies that facilitate and promote learning, allowing the creation of content that favors teaching work. These teaching strategies can be designed using various digital tools, which are software programs that promote active and collaborative learning, simplify learning tasks and, together with repositories, constitute a collection that prevents teachers from preparing material that already exists in The network thus constitutes a time management tool (Carcaño, 2021).

One can speak, based on the incorporation of ICT in the educational scenario, of the use of new didactic strategies. According to Colom (2002), the teaching strategy includes methods, means and techniques that are more flexible and useful during the teaching process. Also Palomino Noa et al. (2015, cited in Sebastiani, 2023, p. 10), warns us that teaching strategies refer to a set of steps, tasks, situations, activities or experiences that the teacher puts into practice systematically with the purpose of achieving certain goals. learning objectives.

Then, recovering the idea that teaching strategies are actions planned by the teacher to achieve certain objectives, proposals can be designed through the use of digital tools. There is a wide variety of digital tools, among them, we can mention Nearpod, which allows guided presentations to be carried out through devices connected to the Internet. It has the ability to incorporate multimodal content and interact with the audience through

activities that allow synchronous or asynchronous work (Web del Maestro CMF [WMCMF], 2015).

This digital tool allows teachers to create interactive presentations for classes. It is considered that this tool works holistically, because it allows, within the same platform, to present topics and evaluate knowledge through various strategies. Also, the teacher can moderate the classes in real time to check the participation of the students, thus becoming a tool aimed at developing gamification proposals that allow creating interactive games based on the study topics, games in which thinking is promoted. and metacognition.

Nearpod, as indicated, allows you to create gamification proposals. Gamification according to Cornellà et al. (2020), is based on using game elements to design learning experiences that could take place without enjoying the recreational component, but that, when planned, following the guidelines that characterize this methodology, turn them into attractive and motivating proposals for students. students. Gamification allows organizing activities aimed at achieving greater motivation on the part of students, similar to an online game, but with the purpose of educating and not just playing, but also allowing students to acquire new knowledge or reinforce what they have already learned. , through games that include points, levels, achievements, rewards, challenges, among others.

Teaching of graphemes

Teaching graphemes is a process that requires time and dedication. According to Catach (1996), a grapheme is defined as the smallest part of a written string that is distinctive and/or meaningful, composed of a letter, a group of letters, an accented letter or an auxiliary sign that refers to phonics. or semic to the spoken chain. Students should have the opportunity to practice and reinforce the graphemes they have learned. This means that teachers must dedicate time to their teaching. This can include reading books with simple words, doing writing activities, and playing word games. These activities would help students reinforce the graphemes they have learned and develop reading and writing skills. Taking into account that Gvirtz & Palamidessi (1998) mention that teaching is an activity that aims to improve learning and that in turn allows the student to do something with help, the author expresses that:

The school aims to achieve a very long and complex series of learning, from very simple learning to very complex and diverse learning, from basic habits to attitudes and feelings and cognitive skills of great abstraction (...). The learning that is proposed to be developed or that is developed at school is innumerable. These are multiple modifications of people's behavioral patterns that participation in school - through different means - enhances or inhibits. (p. 118).

According to the contributions of Alcalde (2011), to teach graphemes the use of learning strategies that allow the student to understand and apply the concepts of writing should be used. These strategies should include the use of visual materials, carrying out written activities, reading texts and developing writing exercises.

Meaningful learning

The development of significant learning is considered relevant, within the framework of the constructed didactic proposal. Meaningful learning is a process in which students relate new knowledge to the prior knowledge they already possess. This means that students must have a deep understanding of the concepts to be able to relate them to others, thus allowing them to understand them more deeply and remember them more easily. The interaction does not occur with any previous idea, but with some specifically relevant knowledge already existing in the cognitive structure of the learning subject (Moreira, 2012).

Learning styles

Kolb (2014) states that learning requires four fundamental skills: concrete experience (CE), reflective observation (OR), abstract conceptualization (EA), and active experimentation (EA). These learning skills proposed by Kolb are of great importance and must be taken into account when teaching, because the student is closely linked to genetics, life experiences and the demands of the environment to form their learning style and it is relevant to understand these concepts in order to be effective when teaching.

Once the different learning styles have been determined, it can be concluded that each student has a different way of learning and due to the changes that have arisen in education, thanks to technological advances, all these components must be taken into consideration.

Methodology

Firstly, it is considered important to recognize that when talking about research we refer to “a process by which an attempt is made to respond to scientific problems through systematic procedures, which include the production of valid and reliable information” (Borsotti, 2009, p. . 29).

The starting point, or at least an initial decisive moment of all social research, is the definition of its object, the formulation of a problem to which we want to provide an answer or solution. For the empirical-analytical tradition, “scientific research not only begins but basically consists of facing and posing problems and look for solution. Research is, thus, investigating problems” (Briones, 1980 cited in Torres & Jiménez, 2004, p. 15).

As was initially specified, the problem that guided the research developed was related to direct or field research. This research is carried out in the place and time in which the study phenomena occur, through the observation of facts and events. that allow the research to be clear and precise, to avoid alterations to the reality and study focus (Grajales, 2000). As Yuni & Urbano (2014) maintains:

The concept of field work refers to the actions that the researcher has to carry out to carry out the observation/measurement of empirical phenomena, both in the natural contexts in which they occur and in special situations created by the researcher such as experiments, laboratory measurements, etc. (p. 10).

According to Torres & Jiménez (2004): “formulating a social research problem implies that the researcher recognizes and makes explicit its place of enunciation” (p. 17). In this sense, as researchers, the initial concerns were linked to the improvement of the academic situation of the students of the educational institution, designing a didactic proposal that tended to the development of significant learning; didactic proposal, which in this case, was mediated by ICT, which made it a situation that deserved to be studied.

With the aforementioned, theoretical level methods were applied, which focuses on the study of concepts, theories and principles. Through analysis and synthesis, inductive deductive historical logical and systemic structural.

Empirical methods were used by applying a survey to teachers of the educational institution and a diagnostic questionnaire for 8th year students, using mathematical and statistical methods to collect, analyze and present data efficiently through the construction of graphs in Excel and data analysis using Jamovi. Sayings gives These were collected both from the surveys and diagnostic questionnaires and from the anecdotal record that the teachers in the area of Language and Literature prepared through observation of classes in where students solved activities proposed by themselves on the topic investigated. In this context, the existing difficulties in the students' writings were evident when they confused certain graphemes, which caused difficulties in the interpretation of the texts.

Research techniques and instruments

The research was developed taking into account the contributions of both the quantitative and qualitative approaches, which involved the collection and analysis of data through various research techniques. We worked with the survey and observation. The instruments constructed to develop this research were the following: survey of teachers in the area of Language and Literature, diagnostic evaluation questionnaire for students, class observation sheet and anecdotal record of classroom experiences.

The purpose of the survey was to investigate the teaching practices developed by teachers in the Language area, the use of ICT and its scope in relation to teaching practices, among others. The purpose of the questionnaire was to diagnose the knowledge that the students presented in relation to the use of graphemes and the difficulties in written production. The observation sheet allowed us to recognize the students' difficulties in the use of graphemes, and through the construction of the anecdotal record, it was possible to clearly demonstrate the difficulties that the students present in writing, due to the fact that they confuse the different graphemes. For more information see table 1, table 2, table 3 and table 4.

Delimitation of the population and the sample

Population

The present research worked with all the students who were in the 8th year of a public educational institution in the province of Cotopaxi (104 students in total). Likewise, we worked with five teachers who make up the area of Language and Literature who were part of the research.

Sample

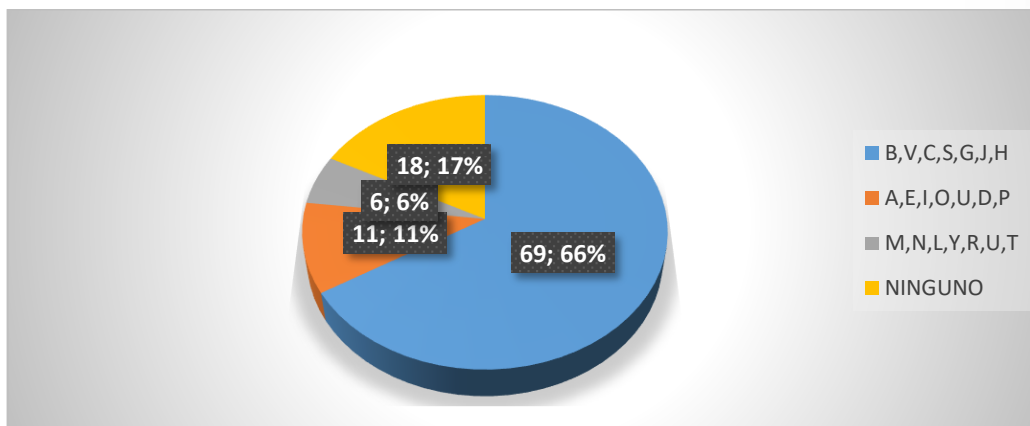
The sample is a part of the population that is used to obtain the desired results. Instead of examining the entire group, which is known as the population or universe, only a small part of the group is examined, which is called the sample (Murray & Larry, 2009). For this research, the diagnostic questionnaire was carried out on the entire eighth-year population, made up of 104 students. Likewise, 5 teachers corresponding to the area of Language and Literature were also surveyed.

Results

The initial diagnostic questionnaire regarding the use of the graphemes B, V, S, C, G, J, and H was applied to the 8th year EGB students. The results were tabulated in the Excel program.

Figure 1

10 Graphemes that present confusion when writing a text



Note:Evaluation of eighth-year students.

Through the diagnostic evaluation, it was found that 69.66% of students have problems when using the graphemes, B, V, C, S, G, J and H and this affects their writing and comprehension. The other percentages correspond to the other graphemes of the Spanish language alphabet. Taking this background into account, this research was developed in order to help teachers and students improve the teaching and learning of the aforementioned graphemes.

For the teacher survey, interpretation was carried out using Jamovi. It was possible to observe the results obtained and the teachers' appreciations in reference to the need to have a digital teaching tool that allows them to improve students in relevant topics such as learning graphemes, through the use of gamification.

Table 1

Data obtained from the teacher survey

	Level	Frequency	Total	Percentage
Methodology to teach graphemes	Exemplification	1	5	twenty%
	Phoneme Grapheme Method	1	5	twenty%
	Repetition	1	5	twenty%
	Explanation	1	5	twenty%
	spelling	1	5	twenty%
Evaluation of the effectiveness of the methodology	Well	1	5	twenty%

Table 1*Data obtained from the teacher survey (continuation)*

	Level	Frequency	Total	Percentage
	Requires implementing new strategies	4	5	80%
Use of a digital teaching strategy to teach graphemes	Yeah	4	5	80%
	No	1	5	twenty%
Digital tools facilitate the teaching of graphemes	Yeah	4	5	80%
	No	1	5	twenty%
Time dedicated to teaching graphemes	1	1	5	twenty%
	2	4	5	80%

Note:Survey developed for teachers.

Through the systematization of the responses, it was clearly identified that the methodology used to teach graphemes is diverse by the five teachers surveyed. Furthermore, it can be seen that one teacher considers that the methodology is “good”, while the remaining four believe that new teaching strategies need to be implemented. On the other hand, it can be said that 80% of teachers use digital teaching strategies to teach graphemes, while the remaining 20% do not. As for whether digital tools facilitate the teaching of graphemes, 80% of those surveyed agreed that they are useful, while 20% said no, because digital tools do not exist for every classroom. Finally, it was observed that 80% of those surveyed teach the content referring to graphemes, dedicating two hours a week to said content, while 20% dedicate one hour a week to addressing the content.

With the above, there is a need to create a proposal that makes it easier for teachers to teach graphemes through the use of Nearpod as a digital tool for gamification that collaborates at the same time with increasing the students' motivation for the learning.

Table 2*Data obtained from the students' observation sheet*

Details	Yeah	No	Observations
Eighth grade students correctly use the graphemes of the Spanish language.	3. 4	70	It is evident that students confuse graphemes and write incorrectly, therefore, there are inconsistencies in their written texts.
Graphemes have been observed that are used incorrectly.	80	24	The graphemes that coincide in being written incorrectly are B, V, C, J, S, C and H.
The graphemes that present the most confusion are B and V.	93	eleven	Example: beautiful, hair, write, had,
The graphemes that present the most confusion are G and J.	85	19	Example: I say, he said, he directs, he says,
The graphemes that present the most confusion are C and S.	94	10	Example: Cansión, conclusion, sebolla, cosina
The graphemes that present the most confusion are H.	80	24	Example aser, asher, ablar, hun, umo.

Note:results of eighth grade students in the use of graphemes.

In the observation carried out in classroom contexts, while the students carried out activities proposed by the teachers, it was evident that the vast majority of students (70 students) do not use graphemes correctly; The graphemes that present the greatest difficulty are: B, V, G, J, S, C and H (see examples in table 2).

Table 3*Anecdotal record of eighth grade students*

anecdotal record	
Course: Eighth	Date November 13, 2023
Parallel: A, B, C, D	Time 8:30 a.m. to 10:30 a.m. and 11:15 a.m. to 12 p.m.
Evaluated activity: Paragraph of 100 to 150 words with the theme "My beautiful Ecuador".	
Description of what was observed	Interpretation of what was observed
The students were developing the writing activity and while they were writing their texts could be analyzed, in which it was evident that the students confused the graphemes B, V, C, S, G, J and H	Some students in the parallels in which the activity was developed come from single-teacher schools, and did not obtain good foundations in the use of graphemes, therefore, it can be seen in their tasks that they do not write correctly and this causes them not to understand your texts.
For example: a student wrote: "My country is vonito."	

Table 3*Anecdotal record of eighth grade students (continued)*

anecdotal record
Another student wrote: “The chasm of Cotopaxi is white.”
In another text the following was evident: “My mother told me that Ecuador has many tourist places”
Another example: “I have to make my country known to the whole world.”

Note: 8th grade students

Through the anecdotal record developed on November 13, 2023, it was evident that while the students were developing the requested textual production, they had problems writing it (table 3). In the description of what was observed there are clear examples of the difficulties that the students presented. Therefore, the need to implement a teaching strategy using the Nearpod tool to develop knowledge in students is deepened.

Thus coinciding with the results of both the surveys where teachers state that it is necessary to incorporate new teaching methodologies with ICT, and in the implementation of the questionnaire, class observation and the construction of the anecdotal record, the importance that requires the implementation of a didactic proposal mediated by ICT.

Proposal

Didactic proposal through the use of the Nearpod digital tool for teaching graphemes

The general objective of the proposal is related to the possibility of improving the learning of certain graphemes by 8th year students through the design of a gamification proposal with the use of the digital tool Nearpod.

The specific objectives of the proposal were explained as follows:

- Design a gamification proposal to improve the learning of graphemes in 8th year students.
- Implement a gamification proposal to improve the learning of graphemes in 8th year students
- Evaluate the scope of the gamification proposal implemented in 8th year students.

Justification

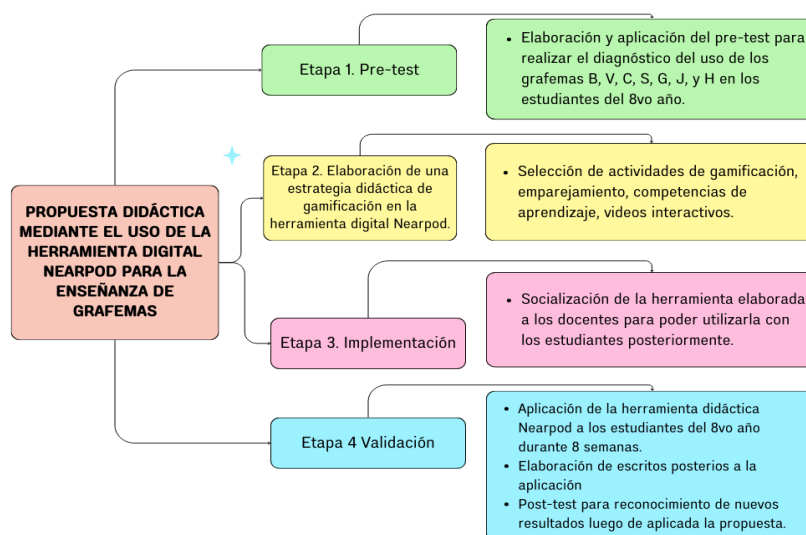
Human beings have stood out for having the unique communication ability of their species, which involves verbal and non-verbal language. The relevance of mastering spelling lies in the fact that it is essential to communicate in writing and for our interlocutor to understand us (Gómez & Calixto, 2019). Taking this idea into account, it has been evident through essays, reports, and in the written tasks developed in class by 8th year EGB students, the confusion that exists in the use of certain graphemes; Likewise, the reinforcement activities carried out in the classroom context have not shown a significant improvement in the use of graphemes, thus creating confusion in the students' written texts, negatively affecting their academic achievement.

For this reason, it is necessary to correct the spelling insufficiencies presented by eighth-year EGB students, through the use of gamification tools such as Nearpod, with online recreational activities that address the disciplinary content of the graphemes of the Spanish language such as B. and the V, the S and the C, the J and the G and the use of the H. For this reason, there is a need to strengthen the teaching of these graphemes from a different perspective, through the use of a digital tool, which would allow the development of significant learning, allowing students to make new connections with the content through interactive online activities.

Below are the stages in which this proposal was developed.

Figure 2

Stages of the didactic proposal mediated by ICT



Stage 1. Pre-test

At this stage, a diagnosis of the eighth-year students and a survey of teachers was developed, in which the following results were obtained.

Table 4

Analysis of results of the initial diagnostic evaluation of students

Chart of achievements in the final diagnostic evaluation	No.	%
Master the required learning	1	0.96%
Achieve the required learning	16	15.38%
Next to reach	35	33.65%
Requires reinforcement	49	47.12%
Does not reach the required learning	3	2.88%
Total	104	100%

Note: results obtained from eighth grade students.

In the table it can be seen that only one student masters the learning about graphemes, being 0.96% of those evaluated. While the students who achieve the required learning are sixteen (15.38%), the students who are close to achieving the learning about graphemes are thirty-five (33.65%). There are forty-nine students who require reinforcement of learning, which represents 47.12%, which means almost half of the sample. Three (2.88%) students do not achieve the required learning. With these results, the need to have a tool that facilitates the teaching and learning of graphemes is essential. Because almost all students do not reach the standard of mastering learning.

Stage 2. Development of a gamification teaching strategy in the Nearpod digital tool

With the analysis of the results obtained through the diagnostic evaluation of the students and the survey of the teachers, it was possible to determine the graphemes in which there is difficulty in the students when writing, these are: B, V, C, S, G, J and H, with this background, we proceed to develop the gamification proposal using the Nearpod platform.

Nearpod as a Teaching Tool and how to use it

In order to use Nearpod, you must first download and install the application for phones and tablets from the Android or iOS stores. Nearpod can also be used directly from an internet browser (Firefox, Chrome, Internet Explorer) (Hernández, 2018). To enter Nearpod you must follow the following instructions.

Click on the hyperlink [Nearpod](#). Then, the user must register (in this case as a teacher) and the program allows them to create various gamification activities. Once the user designs the activities, they can share the link with the students so they can access them. You can share a unique code that is valid for one month.

This platform allows teachers to carry out interactive activities and offers a variety of features to help educators improve the learning experience of their students, below are some features that this educational software allows:

- Interactive presentations
- Learning activities
- Real-time monitoring
- And, data analysis

Another important factor within Nearpod is the interactive videos that, as it explains the use of graphemes, ask diagnostic questions to check the effectiveness of learning in students.

To develop this proposal, contributions from studies carried out by different authors were taken into account, such as: Gómez & Calixto (2019),Rodriguez (2020),Llerena & Mendoza (2022),Battles (2022) and Delgado et al. (2024), said researchers mention the need to use gamification tools as a creative strategy for teaching graphemes that encourage learning with an innovative approach, taking into account that, if the graphemes are written incorrectly, there could be a problem with the compression of the written texts., also considering Nearpod as an effective tool that allows the acquisition and reinforcement of learning.

Stage 3. Implementation

To begin this stage, meetings were held with Language and Literature teachers to socialize the didactic proposal designed in Nearpod. Its operation was explained to them in a context of exchange where they could learn about both the teachers' assessments and the feasibility of addressing the proposal in classroom contexts. The findings are explained in Table 5 below.

Table 5*Digital tools facilitate the teaching of graphemes*

Digital tools facilitate the teaching of graphemes	Surveyed	Frequencies	% of the total	% Accumulated
Yeah	Teacher 1	1	20.0%	20.0%
	Teacher 2	0	0.0%	20.0%
	Teacher 3	1	20.0%	40.0%
	Teacher 4	1	20.0%	60.0%
	Teacher 5	1	20.0%	80.0%
No	Teacher 1	0	0.0%	80.0%
	Teacher 2	1	20.0%	100.0%
	Teacher 3	0	0.0%	100.0%
	Teacher 4	0	0.0%	100.0%
	Teacher 5	0	0.0%	100.0%

Note: data obtained from the survey of teachers.

Of the five teachers surveyed, all affirm the importance of the use of digital tools in the teaching and learning processes. One of them (20%) alludes to the fact that the school should have with infrastructure and access to technological devices, as well as offering training for their use for pedagogical purposes. The other teachers surveyed affirm that the objectives must be clearly specified when digital tools are used, also that they make it possible to know the progress that students have, allowing the implementation of feedback processes, among other positive aspects.

Stage 4. Validation

When the teachers were already using the Nearpod digital Gamification tool, the application was carried out with students in the eighth years of basic general education. This work was carried out for 8 weeks in which students were able to experience learning graphemes through gamification with different interactive exercises. Finally, the students wrote a 250-word text with a free topic, in which a significant improvement was evident in the use of the graphemes studied after having had the opportunity to work with the gamification proposal.

To determine the validity of the application of the didactic proposal using the Nearpod digital tool in the eighth year EGB students, a post-test was developed. Below, in table 6, the results obtained are detailed.

Table 6*Post-test results*

Chart of achievements in the final diagnostic evaluation	No.	%
Master the required learning	eleven	10.58%
Achieve the required learning	83	79.81%
Next to reach	10	9.62%
Requires reinforcement	0	0.00%
Does not reach the required learning	0	0.00%
Total	104	100%

Note: Post-test to eighth grade students

Clearly, it can be seen that, with the application of the post-test, there are no students in the range referred to as “requires reinforcement and is not enough.” There are only 9.62% of students who are close to achieving the required learning; while 79.81% achieve the learning and 10.58% master it, thus giving 90% of students who are above the regular ranges, among the students who Achieve and Master the learning. The link to the designed gamification proposal is the following: <https://app.nearpod.com/?pin=B8DY2>. This link will have a duration of one month for its use, if you need to use it after the specified time, contact the authors

Conclusions

The following aspects are considered as conclusions of the research developed.

- Teaching graphemes to students is achieved through the development of interactive exercises on the Nearpod platform, through gamification. This work was developed given the preliminary findings found in the observation sheet and the anecdotal record with an initial questionnaire carried out to the students in which the need to implement a gamification didactic strategy to improve the learning of graphemes that encourages them to use them was clearly evident. in the Spanish language correctly, in order to avoid confusion.
- It is evident that the Nearpod platform has countless activities that allow the development of gamification; Although the limitation is that the teacher can share the activity with the students only for a period of 30 days and then a new link is required to be generated to continue using the application, this is because the free version of Nearpod was used. .
- It is corroborated by the application of the Nearpod digital tool that the various activities offered by this platform to carry out gamification do facilitate teachers' feedback on the teaching of graphemes, as they provide students with new

strategies through games that They challenge you to continue learning the topics studied and in this way allow you to reinforce the knowledge acquired in the classroom in a conventional way.

- Constant training on topics related to the pedagogical use of ICT is considered extremely necessary, knowing that it is currently part of one of the challenges assumed in educational institutions. The importance of the construction of learning communities in school institutions that enable the generation and maintenance of educational proposals that collaborate with the development of meaningful learning is maintained. The school, as one of the institutions responsible for cultural transmission, should constantly analyze its training practices and recover that knowledge that is developed outside of it, knowing that in the times we live in, immersed in technological contexts, the ubiquity of knowledge demands the school to rethink its proposals.

Conflict of interests

The authors declare that they have no conflict of interest in the article presented.

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