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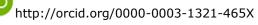*Translated from the original in Spanish*

Original article

Gamification as a didactic strategy for the acquisition of vocabulary in English in the post-pandemic

Gamificación como estrategia didáctica para la adquisición de vocabulario en inglés en la postpandemia

Gamificação como estratégia didática para aquisição de vocabulário em inglês no pós-pandemia

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ABSTRACT

The work addresses the importance of gamification as a didactic strategy in the teaching of English as a second language in basic education and high school in Ecuador. The objective of the research was to identify the importance of the application of the gamification strategy for the acquisition of vocabulary in English, in the post-pandemic. To achieve this purpose, an interview questionnaire was applied to six English teachers from Tulcán canton in Carchi´s province, defining elements of interest to achieve an effective application of this didactic strategy in the post-pandemic era. The results of the interview, together with the theoretical analysis carried out after consulting the updated bibliography, were interpreted and discussed with the qualitative method of methodological triangulation. It was determined that games to improve English vocabulary are very useful, which was much easier to achieve in the time of virtual classes due to the pandemic, and is currently difficult due to the scarce technological resources of public and mixed schools. The importance of expanding the range of games to be used in English classes and their cooperative potential was recognized, as a way to improve cognitive and socio-affective components in students.

Keywords: gamification; didactics; strategy; meaningful learning; vocabulary; English; Ecuador.

RESUMEN

En el trabajo se aborda la importancia de la gamificación como estrategia didáctica en la enseñanza del inglés como segundo idioma en la educación básica y bachillerato en Ecuador. El objetivo de la investigación fue identificar la importancia de la aplicación de la estrategia de gamificación para la adquisición del vocabulario en inglés, en la postpandemia. Para lograr tal propósito se aplicó un cuestionario de entrevista a seis

docentes de inglés del cantón Tulcán en la provincia de Carchi, definiéndose elementos de interés para lograr una efectiva aplicación de esta estrategia didáctica en la época de postpandemia. Los resultados de la entrevista, unidos al análisis teórico realizado luego de la consulta a bibliografía actualizada, se interpretaron y discutieron con el método cualitativo de triangulación metodológica. Se determinó que los juegos para mejorar el vocabulario de inglés resultan muy útiles, lo cual fue mucho más fácil de conseguir en la época de clases virtuales debido a la pandemia, y se dificulta en la actualidad por los escasos recursos tecnológicos de las escuelas públicas y fiscomisionales. Se reconoció la importancia de ampliar la gama de juegos a usar en las clases de inglés y su potencial cooperativo, como vía para mejorar los componentes cognitivos y socioafectivos en los estudiantes.

Palabras clave: gamificación; didáctica; estrategia; aprendizaje significativo; vocabulario; inglés; Ecuador.

RESUMO
O trabalho aborda a importância da gamificação como estratégia didática no ensino de inglês como segunda língua na educação básica e no ensino médio no Equador. O objetivo da pesquisa foi identificar a importância da aplicação da estratégia de gamificação para a aquisição de vocabulário em inglês, no pós-pandemia. Para atingir esse objetivo, foi aplicado um questionário de entrevista a seis professores de inglês do cantão de Tulcán, na província de Carchi, definindo elementos de interesse para alcançar uma aplicação eficaz dessa estratégia didática na era pós-pandemia. Os resultados da entrevista, juntamente com a análise teórica realizada após consulta à bibliografia atualizada, foram interpretados e discutidos com o método qualitativo de triangulação metodológica. Foi determinado que os jogos para melhorar o vocabulário em inglês são muito úteis, o que era muito mais fácil de conseguir durante o tempo de aulas virtuais devido à pandemia, e atualmente é difícil devido aos escassos recursos tecnológicos das escolas públicas e fiscomisionales. Foi reconhecida a importância de ampliar o leque de jogos a serem utilizados nas aulas de inglês e seu potencial cooperativo, como forma de melhorar os componentes cognitivos e socioafetivos nos alunos.

Palavras-chave: gamificação; didática; estratégia; aprendizagem significativa; vocabulário; Inglês; Equador.

INTRODUCTION

Among the main difficulties that arise in the teaching of foreign languages, is that the teacher is able to prepare students to apply the language being studied; which is very particular in the acquisition of vocabulary and its effective use in improving communication skills.

Cameron (2001) indicates that, for the acquisition of vocabulary in English, several aspects must be taken into account with respect to teaching-learning: what is vocabulary, the development of vocabulary, the development of meanings and learning and teaching of the vocabulary. As a first point, it should be known that vocabulary cannot be understood as a set of isolated words, since they make up units of meaning that involve visual or conceptual representations. According to Cameron (2001, p. 57) vocabulary is defined as "learning words, formulating sentences or fragments, finding words within them, and learning even more about them".

Regarding the meaning of knowing a word, Cameron (2001) points out three important skills: knowing the form, that is, how the

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word sounds, how it is pronounced and its grammatical changes; on the other hand, mastering the meaning, which involves the conceptual content and how it relates to other concepts and words; and, finally, utility, that is, mastery of patterns with other words and particular uses of language.

On the other hand, the acquisition *of* a language is one of the most impressive and fascinating aspects of human development. However, he points out that there is a big difference between acquiring a language and learning it, since acquisition is a natural, innate process, intrinsic to development, not guided. On the contrary, learning has the characteristics that it is guided and practiced; In addition, it requires a mental effort and needs active teaching-learning strategies.

Given the challenges that learning a foreign language represents, gamification is recognized as an important strategy. Multiple authors have defined the game as a teaching method in the educational context. Piaget (1991) considered it an essential element in children's lives, to generate learning, since its appearance was even prior to language itself and the manifestations of social life. In turn, Fernández & Henrique (2016) explain that " the game helps in cognitive construction, which increases the skills that are important for the construction of knowledge and life such as: observe, analyze, guess and check, composing what is meant by logical reasoning" (p. 164). This last definition removes the game as a method of children's intellection and expands its use in the educational context, as an important element to learn and strengthen skills that allow logical reasoning.

There are multiple benefits of incorporating games into the educational context. These can be used in teaching all age groups; In addition, they motivate students and allow the development of skills to solve problems,

to collaborate and to be creative. On the other hand, they allow students to develop their own identity and allow them to develop communication skills and expand their collaborative skills.

There are various types of games that can be used in the classroom; it is the task of the teacher to conceive adequate strategies for its use. In the case of teaching English, games are an effective tool in the development of oral expression, since the skill arises naturally at the moment in which students must communicate to achieve the objectives of the game. Expressing a thought, giving an opinion, would not be seen as an activity imposed by the teacher, but as a logical and necessary fact to achieve the goal set by the game.

Among the range of useful games in the educational context, digital games stand out. Many educators consider that digital games can be harmful, but the question knows how to use them correctly. The teacher must be able to design activities that incorporate them and in which the greatest number of benefits can be obtained for the students.

In the educational space, digital games that generate interaction are very necessary. There are multiple games that have this feature, which makes it possible, if used as an instructional tool, for students to work as a team, exchange opinions and establish strategies to achieve a specific objective. This had a recognized importance in the recent period lived, where confinement, tele-education and Teleworking prevailed for the development of educational activities worldwide, for almost two years, due to the COVID-19 corona virus pandemic that hit the world. Indicating that education will be different after this period is an idea that is handled from scientific fields to the perception of students, teachers, families and society (Cardona, 2021).

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In Ecuador, as part of the government policy to maintain quality levels in education during this period, alternative programs were managed for the different types of education, all based on the virtual modality of education, thus guaranteeing service coverage to the most children and adolescents, with limited access to technology in some cases.

The present investigation focuses specifically on the educational sector of the Tulcán canton in the Carchi province, in which there are 71 educational institutions, of which 55 are public, nine private and seven fiscomisionals, with 22,584 students and 1,169 teachers, according to records of the National Institute of Statistics of Ecuador and the Ministry of Education. According to the same sources, 97.18% of the institutions and 78.44% of the students have returned to school activities in person by March 2022.

The research is aimed at identifying the importance of the application of the gamification strategy for the acquisition of vocabulary in English, in the post-pandemic.

MATERIALS AND METHODS

With the intention of knowing the criteria of the English teachers of the Tulcán canton in the Carchi province, an interview questionnaire with 10 questions aimed at addressing the subject under study was developed. The questionnaire was validated by two experts in educational matters, with a doctorate degree, determining a high reliability and validity for its application. The structure of the questionnaire is shown below. (Table 1)

Table 1-Structure of the questionnaire.

Theme	Number of questions
General data	5
Use of innovative methodologies in teaching English	1
Experiences on teaching English and learning vocabulary	3
Use of gamification in the teaching of English and specific vocabulary	4
Use of games and other digital didactic resources in the teaching of vocabulary in English	2

Convenience sampling was applied, achieving the participation as interviewees of six English teachers from public schools (4) and public schools (2), all women, which is logical when observing that 67% of the teachers of the Tulcán canton represent the Female gender. The teachers interviewed have the following qualifications: higher technology (1), bachelor's degree (2), engineering (2) and master's degree (1), with an average of nine years of experience. 100% of the teachers teach classes at the upper basic education and high school level.

The results of the interview, in addition to the theoretical analysis carried out in relation to gamification and its application in the context of teaching English, based on bibliographic resources extracted from databases and academic repositories, were interpreted through the qualitative method of methodological triangulation (Gómez & Okuda, 2005), using the triple entry table technique.

RESULTS

The application of the interview yielded the following results:

- 100% of the teachers interviewed consider it important to use innovative methodologies in education, especially in the teaching of the English language and vocabulary in particular; relating them to meaningful learning.

- The main factors for the effectiveness of learning the English language were the methodologies used and the motivation of the students, derived from their little taste for non-native languages and low positive influence from the environment.

- The main difficulties that are recognized in learning English are its mechanical, rote nature, problems with vocabulary, listening capacity, and excessive use of the translator, especially during the virtual class period.

- Although it was recognized that the most used methodologies are still traditional, others are beginning to be used, such as Project-Based Learning (PBL), gamification, visualization, among others; increasingly making use of digital tools that were more easily accessible during the pandemic, as students used equipment and personal and family networks. Public and fiscomisional educational institutions are not in a position to take on these challenges at present, due to their scarce physical and technological infrastructure.

- Gamification is known by all the teachers interviewed, who correctly handle the concept and importance in the educational context. In addition, multiple benefits of their employment were recognized, such as improved motivation, teamwork, socialization, academic results, among others.

- In particular, the usefulness of the games for the improvement in the learning of English vocabulary was manifested, considering that they generate greater interest, motivation and commitment of the student in the process.

- The types of gamifications most recognized by the teachers interviewed, with utility in teaching vocabulary, are memory games, word searches, brainstorming; most used through digital resources.

- There was no coincidence among the interviewees in relation to the frequency of use of gamification for teaching vocabulary in English; One of them stated that she did it daily, another indicated that it never did it, and the majority (four) stated that in virtual classes during the pandemic it was much easier, and that they are currently encouraged, through homework, to do it for the student as freelance work at home.

- All teachers know digital resources that allow gamification to be applied in vocabulary teaching, such as *Genially, Kahoot, Quizes, Hanged man, Missing letter, Scrabble, Trivia, Pictionary, Live worksheet,* among others.

- In relation to the ideal frequency of using games in classes for such purposes, there was also no coincidence among the interviewees: three of them indicate that it should be daily; two, that three times a week; and one, that only once a week.

As a result of the application of the methodological triangulation method, the constructed triple entry table was elaborated, which is presented below. (Table 2)

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Table 2- Three-entry box built

Sources and instruments/Evaluated categories	Interview conducted	Bibliography consulted
Use of innovative methodologies in education	Important, it constitutes a challenge for education in the country.	In the study by Ordóñez & Mohedano (2019), as in many others, it was shown that innovative methodologies are much more successful than traditional ones.
Specific use for teaching English and vocabulary	Yes	In the historical documentary research, carried out by Molina, Molina & Gentry (2021, p. 722), it was determined that " Learning English is a necessity, since it is the universal language in which countless activities in the world of education are carried out. Science, business, corporate, others. However, more effective teaching strategies are required that favor the mastery of linguistic skills in the student and gamification can become a valuable tool for this purpose".
Relationship of innovative methodologies with meaningful learning	Yes	Ordóñez & Mohedano (2019) recognize the relationship between innovative methodologies and meaningful learning, indicating that, in general, what is stimulated is mechanical learning.
Factors that affect the learning of English	Teaching and motivation methodologies	In the study by Bastidas & Muñoz (2020), the main factors were determined: the learning environment; the curriculum; the preparation of teachers; the role of the local community; national policies and cognitive, affective and linguistic factors.
Main difficulties	Insufficient vocabulary, listening capacity and excessive use of the translator, especially at the time of virtual classes	The main deficiencies, in general, are related to: demotivation, fear of participating orally, low self-concept about their abilities to learn English and deficiencies in the management of Spanish on the effective learning of English (Bastidas & Muñoz, 2020). Arán, Arzola & Ríos (2022) emphasize the issue of hearing capacity.
Most used methodologies	PBL, gamification, visualization, among others, with digital tools	E-learning, Flipped Classroom, PBL, gamification and collaborative learning, with emphasis on the use of Information and Communication Technologies (ICT) (Arán, Arzola & Ríos, 2022).
Use of gamification in the educational context	Important and useful in improving academic results and ability to socialize, motivation, among other benefits	Evidenced in the work of Molina, Molina & Gentry (2021)
In teaching vocabulary in English	yes, significantly	Evidenced in the work of Arán, Arzola & Ríos (2022)
Most frequent types of games	Memory games, word searches, brainstorming, and other types of digital games	Dias (2019) systematizes the following types of games useful for teaching English as a second language: interactive and exchanged, touch and confidence, creativity and reflection, management, closure, and skill and strategy.
Use in classes	Different employment; its application was facilitated during virtual classes at the time of the pandemic	There is sufficient scientific evidence of its use in classes for teaching English (Chaves, 2020).
Greater application in virtual mode	Yes	" The global pandemic of COVID 19 has stimulated (and on some occasions forced) educational institutions and teaching staff to make effective use

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		of virtual learning environments "(Briceño, 2022 , p. 12).
Promote collaborative work	Not always	It must enhance it (Arán, Arzola & Ríos, 2022).
Use of games and other digital teaching resources	Mainly used are *Genially, Kahoot, Quizzlet, Hanged man, Missing letter, Scrabble, Trivias, Pictionary, Live worksheet,* among others.	Class raft, Explorez, Quizzlet and Kahoot (Chaves, 2019) stand out.
employment frequency	On a daily basis, the majority of the interviewees indicated	Depending on the role given to the game within the curricular program, tedium or boredom in students should be avoided (Chaves, 2019).

It can be seen that there is a general correspondence between the results of the interview with English teachers at the elementary and high school levels of the Tulcán canton in Carchi, and what is documented in the sources consulted. The table above shows only some of the results of the bibliographic search carried out; the chosen authors have carried out in-depth bibliographical studies in relation to the various topics addressed.

DISCUSSION

The analysis of innovative methodologies for teaching the English language acquires the particularity that " it is not reduced to conceptual or theoretical content (...), its function lies in being able to link them with procedural ones, by promoting the development of communicative skills" (Arán, Arzola & Ríos, 2022, page 7). Hence, the use of active methodologies and ICT are very useful for teaching English, especially for the acquisition of communicative skills, especially oral, which is recognized as one of the main difficulties for students, by Arán, Arzola & Rivers (2022). These authors frame the learning of vocabulary in English under the communicative approach, which has surpassed other theories and is located as the axis of the curricular programs, with influences from various contextual elements.

Among the innovative methodologies most used worldwide today for teaching English as a second language, E-learning, Flipped Classroom, PBL, gamification and collaborative learning stand out, all of them with an emphasis on the use of ICT.

One of the aspects that is still valid today, in relation to the function of education and the teaching methodologies or strategies that should be applied is meaningful learning. This concept remains as the guiding thread of educational processes; however, both in the studies consulted and in the results of the applied interviews, it was identified that even the teaching of English, and of vocabulary in particular, continues to be mechanical, rote, characterized by an excessive use of translators who at the time of virtual classes proved very popular with students.

The deficiencies in the teaching-learning of English are still notorious, in the face of the multiple benefits that mastering a language that is so important worldwide for its dominance in the academic, political and business worlds has for children, adolescents and young people (Arán, Arzola & Ríos, 2022). Specifically in the teaching of vocabulary, the elements described above based on Cameron (2001) and other authors, show how complex it is, especially in environments where students are not motivated to improve their communication skills and other linguistic skills.

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In the specific case of Ecuador, the teaching of English is widespread at the national level, both at the basic education and high school levels. However, they face the same problems highlighted by the authors, from the curricular, socio-affective and social. In the interviews carried out, she highlighted that the teachers pointed out with emphasis what is related to the insufficient vocabulary and hearing capacity of the students, indicating that the main causes that originate it are the teaching methodologies used and the low motivation on the part of the students. These factors are among those reflected by Bastidas & Muñoz (2020), who add others such as the preparation of teachers, the learning environment and the influence of external actors, especially families and the community.

In relation to the usefulness of gamification for teaching vocabulary in English and, in general, the improvement of communication skills, there is consensus; both in the literature consulted and, in the interviews, carried out. However, it was evidenced that the games that are currently used by the interviewed teachers are concentrated in digital didactic games that were popular in virtual classes, and that are now more difficult to apply in face-to-face conditions, so use of them mainly for the development of tasks at home is made. There is correspondence between the games and other digital resources used by teachers and those that are most used internationally, as can be seen in the table shown above.

The insufficient economic capacity of public and fiscomisional institutions to guarantee the physical and technological infrastructure required for the use of digital resources in the face-to-face class is evidenced by the fact that the budget in the last school period decreased by almost 10% in relation to the year 2020. This problem is not exclusive to Ecuador, because as Ordóñez & Mohedano (2019) indicate in the study carried out in Spain, private educational centers promote

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more the use of ICT and innovative methodologies, compared to public ones due, usually due to financial constraints.

In relation to this, it is considered that it is necessary to expand the knowledge and application of other types of playful resources by teachers, not only digital, that are better coupled to the reality experienced by educational institutions in the Tulcán canton. As Dias (2019) states, there is a broad classification of didactic games, which once known and evaluated for each specific case, could be used effectively in the Ecuadorian educational context, and in Tulcán specifically. This would prevent the use of games from being related solely to the digital environment, since, despite the fact that they are very useful in times marked by the widespread use of ICT in education and other social and economic activities, they are not the only playful resource that the English teacher could count on to achieve greater motivation, student commitment to their own learning, better academic performance, cooperation and collaboration, among other benefits (Chaves, 2019).

Regarding the cooperative work that gamification should promote, the teachers interviewed stated that they do not always promote it, which indicates that this didactic resource is not used to its full potential. It must be considered that for the game to fulfill its role as an enhancer of English learning, cooperative or collaborative work is a premise (Briceño, 2022). Additionally, and in accordance with Dias (2019), boredom or distraction should be minimized when organizing the game and enhance the use of the real environment of the games, effectively linking the student with their environment.

In general, a better didactic structuring of gamification in English classes, especially for improving vocabulary, should contain the following aspects, among other things: type

and variety of games where digital resources are combined with others in the learning environment classroom and school environment; collaborative component of the games and frequency of weekly use.

In conclusion, it should be noted that gamification continues to be one of the most useful teaching strategies to achieve meaningful learning of English as a second language, and the acquisition of vocabulary and improvement of communication skills.

The widespread use of Information and Communications Technologies has caused many teachers see digital games only as a gamification tool, limiting their application in the post-pandemic era and wasting the advantages of the school space and the family and community environment as enhancers of learning. Motivation and systematic practice of the English language.

It is necessary to know, evaluate and implement the different playful resources available, not only digital, in English classes, specifically in the educational institutions of Tulcán in Ecuador, in order to make the most of their benefits in the cognitive and socio-affective field of the students, enhancing their motivating role and cooperative work.

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Author declares not to have any conflicts of interest.

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The author has participated in the writing of the work and analysis of the documents.

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