Abstract

Currently, the development of new information technologies has generated great changes, including in its advancement to the educational sector, hence this research addresses gamification in the teaching-learning process of Social Studies to encourage participation in general education. The population is limited to a sample of 31 students, corresponding to the 10th year of basic general education of the “Miguel Ángel Suárez” high school in the city of Loja, the methodological approach used is quantitative, and is combined with qualitative descriptive research to gain a complete and accurate understanding of the effects of gamification on student engagement. A questionnaire was used to evaluate the perception and participation of the students. The results obtained highlight the need to adapt active methodologies to satisfy the demands of today’s society and promote digital skills in the classroom. This research highlights the importance of transforming traditional education towards more engaging and participatory approaches, where gamification can play a fundamental role in improving the educational process and student engagement.

Keywords: Gamification; teaching learning; social studies.

Introduction

From excellent traditional teaching to fascinating teaching in today’s technological era, there is a vast gap of experiences of which we have been witnesses as students and now as teachers of other students. As we progress over time, the educational field has been implementing improvements that allow it to adapt to the different realities that change more frequently worldwide.

Considering that after the Covid-19 pandemic, education in Latin America transitioned from traditional to virtual learning through the use of digital platforms. According to UNESCO, Latin America already had an educational delay, and with the arrival of the pandemic, many children and young people were left with significant gaps in reading comprehension and mathematics, deepening the educational problem in the region. In this regard, the IDB (2020), in its report on education and digital technologies, cited by SITEAL (2020), describes that in Latin America and the Caribbean, approximately 62% of primary schools and 75% of secondary schools have computer equipment. Internet access is much lower: only 44% of primary schools and 66% of secondary schools have connectivity.

Following this finding, many countries in the region chose to implement educational digital inclusion policies for both teachers and students. Thus, the teaching-learning of Social Studies today is a challenge for teachers in this area since these subjects cover an extensive field of theoretical information, which must be imparted in a way that achieves meaningful learning and develops social and participatory skills in students. To achieve this goal, I have proposed the idea of working with the methodology of gamification, which is based on learning through educational games and the use of ICT tools. This research aims to analyze the impact of gamification to promote participation in the teaching-learning process of Social Studies in general basic education. Additionally, it seeks to improve understanding, critical thinking, motivation, and develop digital educational inclusion, in accordance with the current Ecuadorian National Curriculum, regarding the use of technological tools that improve the teaching-learning process.

To achieve the proposed goal, research is conducted to analyze gamification tools that are applicable to the teaching of this subject and thereby implement differentiated techniques according to the current era that help develop cognitive and technological skills in students.

Among the strengths found in the development of this work, it can be mentioned that there is good availability on the part of the students to work with gamification, as well as the support of institutional authorities to apply the project to a sample of students to contribute to educational improvements based...
on the correct and ethical management of the obtained data. Additionally, it is worth mentioning that regarding limitations, external aspects such as absenteeism or lack of interest from participants must be considered, which will be addressed through reinforcements and motivations that aid the research process.

This research is composed of three chapters. The first focuses on the theoretical framework, which contains information gathered on theoretical foundations such as pedagogical theories, teaching-learning, gamification, and gamification ICT tools that help the teaching and learning of social sciences. Examples include Kahoot and Quizziz, and it also incorporates the relationship between dependent and independent variables. The second chapter is based on the methodological framework of the research, which has a quantitative methodological approach and is combined with descriptive quantitative research, allowing the categorization of the study object through the analysis of the obtained results. The applied instrument was a questionnaire, and the study will be conducted with the tenth year of General Basic Education at "Miguel Ángel Suárez" Private High School. The third chapter consists of the research results, which will present the findings and conclusions regarding the information obtained from the questionnaire about the application of gamification in Social Studies.

Theoretical Framework

Background

The technological advancement that we witness daily is the same that allowed our ancestors to perform tasks using our brains to give orders to our hands. This same curiosity to learn has enabled us to witness significant scientific advancements that aim to facilitate and assist human labor in all areas. It is important to mention that, just as technology has been able to make many tasks easier, it has also been able to displace many jobs that were previously performed by different people.

However, technology is something we must get used to and adapt to living with. If it was once necessary to know how to read and write, today it is essential to understand how to use electronic devices to avoid being considered digitally illiterate. It is even more crucial to adapt technology to the teaching field, where the knowledge and skills imparted leave behind traditional teaching to embrace mediated teaching, using technological tools that allow for more active student interaction and transform them into not only receivers but also emitters of information.

Hence the idea of including technological tools such as gamification, which, according to Zichermann and Cunningham (2011), is defined as "a process related to player thinking and game techniques to engage users and solve problems." This means that, in addition to capturing the players’ attention, it allows them to use different techniques to solve various challenges as they progress in the game (Soto, 2019).

Pedagogical Theories

Behaviorist Theory

Various authors and specialists in the field describe the behaviorist paradigm as a structured model that explains how the behavior of an organism can be understood through various environmental influences, without considering internal mental processes. These behaviors are observable, measurable, and quantifiable.

According to Skinner (1958), behaviorism within the educational field occurs through the association of a stimulus-response, thus creating programmed instruction.

In contrast, Padras (2018) comments that in the behaviorist approach, the focus of study does not reside in consciousness but in the interactions established between stimuli and responses that generate new observable behaviors and actions. Additionally, being a discipline within psychology, it is based on the direct observation and analysis of behavior.

From this perspective, in the teaching and learning process, the teacher adopts the role of planner of behavioral objectives and supervisor of the process. Their main function is to stimulate constantly until the objectives are achieved, and if not, they implement reinforcement techniques.

On the other hand, the student is conceived as a passive receiver of information, tending to rely more on memorization-based learning. According to Hernández Rojas (2010), the student "is considered a recipient
of information; their task is to memorize what is taught" (p. 114). They rarely resort to analyzing or interpreting the information to understand it; in other words, knowledge is obtained through repetition, or as Prada (2018) describes, it is a cumulative reproduction of reality.

**Constructivist Theory**

Jean Piaget's constructivist theory does not offer a simplistic solution for addressing cognitive development, given the inherent complexity of the process. It considers that knowledge arises as an intricate construction process by the individual in interaction with reality. It is not limited to merely obtaining answers; rather, the importance lies in understanding how learning occurs.

Furthermore, the constructivist approach draws from behaviorism and cognitivism. Constructivism aims to equate learning with the creation of meanings from experiences. Human learning is an activity that the subject performs through their experience with the environment (Piaget & Vítkovský, 2012).

According to Serrano and Pons (2008), constructivism, in its essence, holds that knowledge does not simply emerge as a direct reproduction of pre-existing reality, but as a dynamic and interactive process in which external information is interpreted and reinterpreted by the mind. In this process, the mind gradually builds explanatory models that become increasingly complex and effective. This way, we come to understand reality through the models we construct specifically to explain it.

According to Zambrano et al. (2016), Piaget's theory posits that the progress of intelligence arises spontaneously and is influenced by four key factors: the child's development in terms of biological growth and psychological maturation, the experience that plays an essential role in cognitive development, social transmission that holds that no new message or behavior is incorporated into the individual unless it activates the appropriate prior structures to process and assimilate it, and finally, the balance factor that facilitates the internal search for new levels and reorganizations of mental balance after each cognitive alteration, whether provoked externally or generated internally.

Constructivism, associated with Piaget and Vygotsky, asserts that learning is an active process where students build their own knowledge. Applying gamification in social studies fosters collaborative knowledge construction, as students actively participate, explore concepts, and apply learning in simulated situations.

**Theory of Playful Pedagogy**

Playful activity refers to engaging in games or entertainments through recreational activities aimed primarily at enjoyment, fun, and relaxation. Taking this definition as an example, when we talk about playful pedagogy, it is presented as an educational approach that incorporates play and playful activity as central elements in the teaching and learning process. Instead of viewing play as mere rest or distraction, playful pedagogy recognizes the intrinsic educational value of play and seeks to deliberately leverage it to achieve educational objectives such as motivation and the development of a positive environment for both teaching and learning.

As Rico (2013) indicates in his article "Learning by Delighting," playful nature is an intrinsic characteristic of human experience. Play becomes a means to approach, establish contact, appropriate, and learn from the immediate environment, standing out as an exceptional tool for integral education. Although traditional educators already recognized the pedagogical potential of play, it wasn't until the late 19th and early 20th centuries, with the consolidation of pedagogical science, that the incorporation of playful principles was systematically integrated into educational approaches.

For Ávila et al. (2020), "Playful activity is inherent to the human condition. Play becomes a means of approach, contact, appropriation, and learning of the closest environment, standing out as an extraordinary instrument of integral education" (p. 178).

**Active Methodologies**

"Active methodologies are a series of strategies and techniques that seek effective student learning while fostering active participation, collaboration, and practical application of knowledge" (Márquez, 2021).

An Active Methodology is an interactive process based on the communication between teacher-student, student-student, student-teaching material, and student-environment, which enhances the responsible
involvement of the latter and brings satisfaction and enrichment to both teachers and students (López, F., 2005).

Thus, it can be noted that Project-Based Learning, Problem-Based Learning, the Flipped Classroom model, among other methodologies, are examples of approaches that have emerged and offer teachers the possibility of transforming their pedagogical approach. All these methodologies are classified as active approaches.

Active methodologies represent an opportunity for students to acquire more meaningful learning. Therefore, it is essential for teachers to use these methodologies in the classroom. Additionally, the application possibilities offered by active methodologies are diverse, allowing for adaptation to the context, content, students, and teacher. These methodologies aim to form citizens who are conscious of their reality, transformative, capable of provoking social changes, and promoting dialogue and inclusion. Moreover, they facilitate the generation of knowledge and autonomous learning, enhance student motivation, develop learning by implementing ICT, improve communication skills, develop competencies, interests, and meaningful learning, construct knowledge, rethink routines, stimulate situational critical thinking, strengthen teamwork, and encourage assertive decision-making, among other aspects (Revista Docentes20, 2022).

Gamification

According to Ramírez (2014), "To gamify is to apply game strategies (thoughts and mechanics) in non-playable contexts, unrelated to games, with the aim of getting people to adopt certain behaviors."

For Marín and Hierro (2013), gamification is: A technique, a method, and a strategy at the same time. It starts from the knowledge of the elements that make games attractive and identifies, within an activity, task, or message, in a non-game environment, those aspects that can be turned into games or playful dynamics.

According to Gallego et al. (2014), gamification is: The use of strategies, models, dynamics, mechanics, and elements typical of games in contexts unrelated to them, with the purpose of conveying a message or content or changing behavior, through a playful experience that fosters motivation, involvement, and fun.

Gamification is a strategy that involves applying game mechanics, dynamics, and elements in non-game contexts to motivate, engage, and commit users to achieve objectives.

In the educational field, gamification presents itself as an innovative proposal and a strategy to improve the teaching-learning process. The activities proposed in the classroom seek to involve students in fun and engaging activities so that while they compete and have fun to reach the goal, they also achieve meaningful learning.

Gamification in the Teaching-Learning Process

According to Cangayala et al. (2022), in the educational context, when the teacher incorporates gamification-based activities in their lesson, which are adopted by the student through a renewal in the teaching process, it creates an environment of competition and motivation to achieve objectives. Therefore, when the student learns in a playful manner, it could be concluded that the educator has successfully implemented the gamification process.

Gamification can positively impact the teaching-learning process in various ways. Firstly, gamification can increase students' motivation and engagement. Games are often motivating as they offer challenges, rewards, and opportunities for achievement. This can help students stay motivated and engaged in learning.

Secondly, gamification can promote active learning. Games often require players to actively participate in the learning process. This can help students better understand concepts and develop skills.

Thirdly, gamification can personalize learning. Games often allow players to customize their learning experience. This can help students learn more effectively by addressing their individual needs and preferences.
Gamification in the Field of Social Studies

According to Roldan (2021), Social Studies is a subject in Secondary Education that inherently favors the application of novel approaches for imparting its content. Geography and History stand out as two disciplines particularly suitable for offering a global and integrative vision of social, spatial, and temporal reality. These subjects aim to address the challenges faced by students as citizens, cultivating values such as democratic coexistence, cooperation, and respect for others. These competencies and skills can be developed through innovative approaches such as cooperative learning, where collaboration among students is essential for achieving positive results in the educational process.

Gamification can be an effective tool to improve the teaching-learning process of social studies. Social studies is a complex and broad subject that covers a wide variety of topics. Gamification can help students better understand these topics by making them more attractive and motivating.

General Objective

Analyze the impact of gamification to foster participation in the teaching-learning process of Social Studies in basic general education.

Specific Objectives

- Diagnose the participation of basic general education students using gamification in the teaching-learning process of Social Studies.
- Theoretically substantiate Gamification in the learning of Social Studies, within the framework of playful pedagogical theory applicable in the classroom.
- Assess the results of the impact of gamification on student participation.

Research Design, Materials, and Tools

The methodological approach is quantitative, combined with quantitative descriptive research to obtain a comprehensive and accurate understanding of the effects of gamification on student participation.

Hypothesis and Variable Table

The study hypothesis was that the implementation of gamification strategies in the teaching process of social studies significantly improves student participation compared to traditional methods.

Variables: According to Arias (2012), the variables identified in this research based on their role in the causal relationship are the dependent and independent variables.

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<th>Table 1. Types of variables.</th>
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Source: Author's elaboration.

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affect one's own life and the life of the community in which one lives. Participation is a fundamental right of citizenship. Influenced your interest and participation in social studies classes? Does gamification motivate you to actively participate in activities related to social studies? Do you think that, in social studies, it is easier to learn the content presented through active participation in ludic games? Is participating actively in class a good way to learn the content of this subject? Do you prefer your learning to be active and participatory? Does the use of gamification tools in learning allow active participation in class?

<table>
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<tr>
<th>Teaching</th>
<th>Teaching involves the structured and organized transmission of knowledge and concepts by teachers.</th>
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<tr>
<td>Learning</td>
<td>Learning involves the active construction of knowledge by the student. Do you think you learn more from the teacher's explanation than from activities you have to do yourself? Do you think gamification has contributed to a more collaborative and competitive learning environment in social studies?</td>
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**Population and Sample**

The population is delimited to a sample of 31 students, corresponding to the 10th grade of general basic education at "Miguel Ángel Suárez" high school in the city of Loja, where their ages range between 13 and 15 years with a higher presence of male students.

**Results**

To assess the level of student participation in Social Studies within the General Basic Education (EGB), the following results were obtained:

Regarding the item "Does the use of gamification tools in learning enable active participation in class?" the following information is presented: 41.94% of students agreed and 38.71% totally agreed, indicating a clear acceptance of gamification tools in Social Studies classes.

**Graph 1.** Gamification and active participation in classes.

Regarding the question "Do you consider that, in your experience, the use of gamification in teaching Social Studies has improved your interest and participation?", information was gathered on the interest and participation generated by gamified classes in Social Studies. It shows that 48.39% of students totally agree.
and 22.58% agree that the use of this pedagogical tool has enhanced students' interest and participation in this subject.

Graph 3. Educational games compared to traditional teaching methods.

The information obtained in response to the understanding of the topics covered in Social Studies is summarized as follows: 41.94% of the students agreed, while 32.26% strongly agreed that the implementation of educational games in Social Studies classes has significantly improved their understanding of the studied topics compared to traditional teaching methods.

Graph 4. Gamification as an effective strategy.

La indagación derivada en relación al uso de la gamificación como estrategia efectiva para fomentar la participación y el compromiso estudiantil, se resume en que el 45,16% de los estudiantes señaló estar totalmente de acuerdo, mientras que el 29,03% dijo estar de acuerdo, se confirma que la gamificación es una estrategia efectiva que ayuda a fomentar no solo la participación sino además el compromiso de los educandos en la asignatura de Estudios Sociales.
The response obtained regarding the level of participation and engagement in Social Studies classes due to gamification shows that 51.61% of the students indicated they strongly agree, while 25.81% said they agree. This confirms a positive attitude towards the significant increase in participation levels during Social Studies classes through gamification.

**Discussion**

Based on the application of gamified classes in the classroom and recognizing the challenges associated with evaluating perceptions, the results reveal that general basic education students show clear acceptance and participation towards innovative educational strategies like gamification. As described by Contreras (2016), evaluating the effectiveness of digital games or gamification techniques has proven to be a considerable challenge. Comparatively, assessing other forms of interventions and educational strategies is considered relatively simpler than the use of games, especially digital ones.

The data reveal that the use of gamified tools promotes active participation among students during Social Studies classes, as demonstrated by other related studies such as the one described by Candel (2018). Based on this, disciplines such as Education, Language, and Mathematics use gamification as a strategic tool in teaching and learning. This is achieved by creating innovative collaborative environments, resulting in greater student participation, more effective competition, and a demonstration of behavior motivated by achieving goals and objectives.

Regarding the achievement of learning outcomes, a notable improvement is observed in the teaching-learning process of the topics covered in the Social Studies subject through the inclusion of gamified classes, in contrast to traditional teaching. This not only increases participation but also boosts motivation, as evidenced in similar studies like those by Roldan Reche (2021) and Trigueros (2018).

**Conclusions**

The results obtained from the questionnaire completed by the students clearly reflect the effectiveness of gamification and the use of ICT in the classroom for general basic education levels to teach Social Studies topics. This is especially evident in the participatory aspect of the students during classes conducted with this tool.

However, it is important to highlight that this study has certain limitations. As a preliminary work, it is limited to a group of students from an educational institution in the Province of Loja. It would be beneficial to expand the sample to students from other schools, both within the same province and in others, to conduct a more detailed comparative analysis and identify the strengths of implementing gamification not only in social sciences but also in other subjects.
Gamification can offer opportunities for active student participation, allowing them to interact with the content more dynamically and collaboratively. Therefore, when aiming to implement these new teaching-learning activities in the classroom, combining traditional lectures with new and dynamic strategies such as gamification and the use of ICT will enable enriching and meaningful learning in Social Studies.

The results obtained from this study indicate that gamification in the teaching-learning process of Social Studies is perceived as an effective strategy to foster a more participatory educational environment. Through this playful teaching methodology, students take on an active role in the classroom.

The integration of game elements and gamification dynamics in the classroom significantly improved interest and engagement in the Social Studies subject. This is particularly important given that social science subjects are often quite theoretical. Therefore, it is crucial for teachers to implement these active strategies to capture students' attention for meaningful learning.

Increased participation and collaboration among students during gamified activities were evident. This aligns with the questionnaire responses from the participating students, where more than 70% agreed that their participation significantly increases in playful classes, suggesting a positive impact on the development of social skills and teamwork.

One finding of this research highlights the challenges or limitations that gamified classes may bring. Teachers need to anticipate and plan these classes carefully and ensure that students do not get distracted by the gamification. Instead, they should guide students towards a meaningful learning process.

Finally, the proposed focus on didactic strategies to improve student participation in Social Studies aims to surpass traditional teaching methods through the use of attractive and dynamic gamification methods.

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