Gamification and applicability in the school inclusion process

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ABSTRACT

The objective of this research was to analyze the applicability of gamification in the process of school inclusion. To this end, exploratory research with a quantitative approach was applied with 80 teachers. As a result, the research evidenced the applicability of gamification in the school inclusion process, with most participants recognizing its effectiveness in promoting student inclusion. Teachers perceive gamification as a tool capable of creating a learning environment that is more inclusive, motivating, and adapted to the individual needs of students. When analyzing how gamification assists in this process, the results highlighted benefits such as individualized adaptation, increased student engagement, personalized teaching, and reduced barriers. However, difficulties were identified, such as the lack of technological resources and teacher training, in addition to the resistance of school leadership. To overcome these challenges, participants suggested investing in technological infrastructure, offering continuous training to teachers, and promoting inter-institutional partnerships. These strategies reflect the need for an integrated approach to harness the potential of gamification in promoting more inclusive and equitable education.

Keywords: Gamification, School inclusion, Education.

INTRODUCTION

School inclusion is a fundamental concept in the contemporary educational context, which seeks to ensure that all students, regardless of their abilities, characteristics, or conditions, have equal access to learning opportunities. This paradigm recognizes diversity as an enriching element of the school environment, promoting acceptance, equity and respect for differences. In practice, school inclusion implies the creation of accessible, adapted, and welcoming educational environments, where each student feels valued and capable of developing their maximum potential (FARIA; CAMARGO, 2018; ZERBATE; MENDES, 2018).

In the current context, technologies play a crucial role in promoting school inclusion. Through technological resources, such as assistive devices, specialized educational software, apps, and online platforms, it is possible to offer individualized support to students with specific needs, ensuring that they can fully participate in educational activities. These technologies also provide personalized learning opportunities, allowing each student to advance at their own pace and style, according to their needs and preferences (LIMA et al., 2023).

One of the technological approaches that has stood out in promoting school inclusion is gamification. Gamification consists of applying game elements in non-playful contexts, such as the classroom, with the aim of making the learning process more engaging, motivating and effective. Through games, challenges, rewards and competitions, students are encouraged to actively participate in educational activities, developing cognitive, social and emotional skills in a playful and fun way (MENEZES; BORTOLI, 2018; COELHO et al., 2022).

In this context, the objective of this research was to analyze the applicability of gamification in the process of school inclusion. To this end, an exploratory research with a quantitative approach was applied with 80 teachers. The relevance of this research is justified by the growing need to find effective strategies to promote the inclusion of all students in the educational environment. Gamification emerges as an innovative and promising approach, capable of creating a more stimulating and inclusive learning environment, especially for those with disabilities or learning difficulties.

METHODOLOGY

The research was conducted using an exploratory approach, as it sought to investigate and understand teachers' perceptions regarding the applicability of gamification in the school inclusion process. The choice of this type of research is justified by the need to explore a topic that is still little explored and to understand the possible relationships between gamification and school inclusion, without establishing previous hypotheses.

Regarding the approach, a quantitative study was chosen due to its ability to provide objective data that can be statistically analyzed. In this way, it would be possible to obtain quantifiable information about teachers' perceptions of gamification and its relationship with school inclusion.

The sample consisted of 80 teachers, selected by convenience, both remotely and in person. The selection by convenience was made considering the accessibility and availability of the participants, seeking to ensure a diversified representation of the teacher population.

Structured questionnaires were applied for data collection. This type of questionnaire consists of a set of predetermined questions, usually closed-ended, that aim to obtain objective answers from the participants. The questionnaires were distributed to the selected teachers, either electronically (for remote participants) or in printed format (for face-to-face participants), thus ensuring uniformity in data collection.

During the application of the questionnaires, the participants were instructed to answer the questions honestly and completely, thus ensuring the quality and reliability of the information collected.

After data collection, the answers were compiled and analyzed using descriptive statistical techniques, such as calculation of means, percentages and graphs. These techniques allowed a detailed and systematic analysis of teachers' perceptions of gamification and its contribution to school inclusion.

RESULTS AND DATA ANALYSIS

Through this research, it was possible to verify the applicability of gamification to the process of school inclusion. Initially, the teachers were asked if they believe that gamification helps in this process, as shown in graph 1.

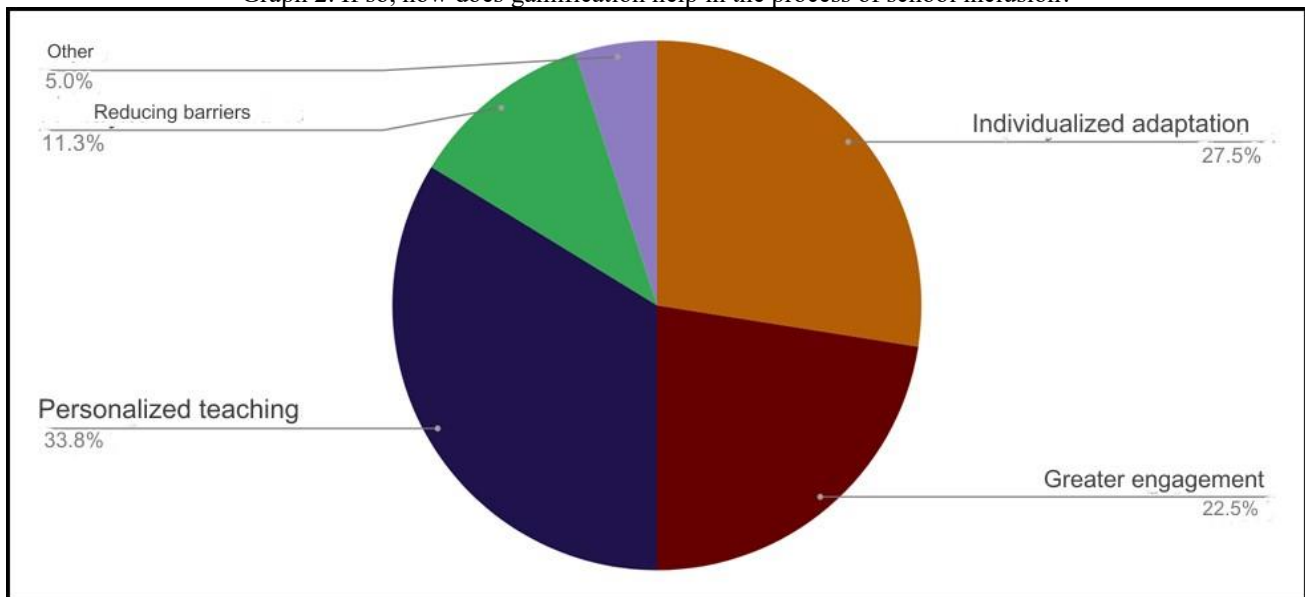Graph 1. Do you believe that gamification helps in the process of school inclusion?
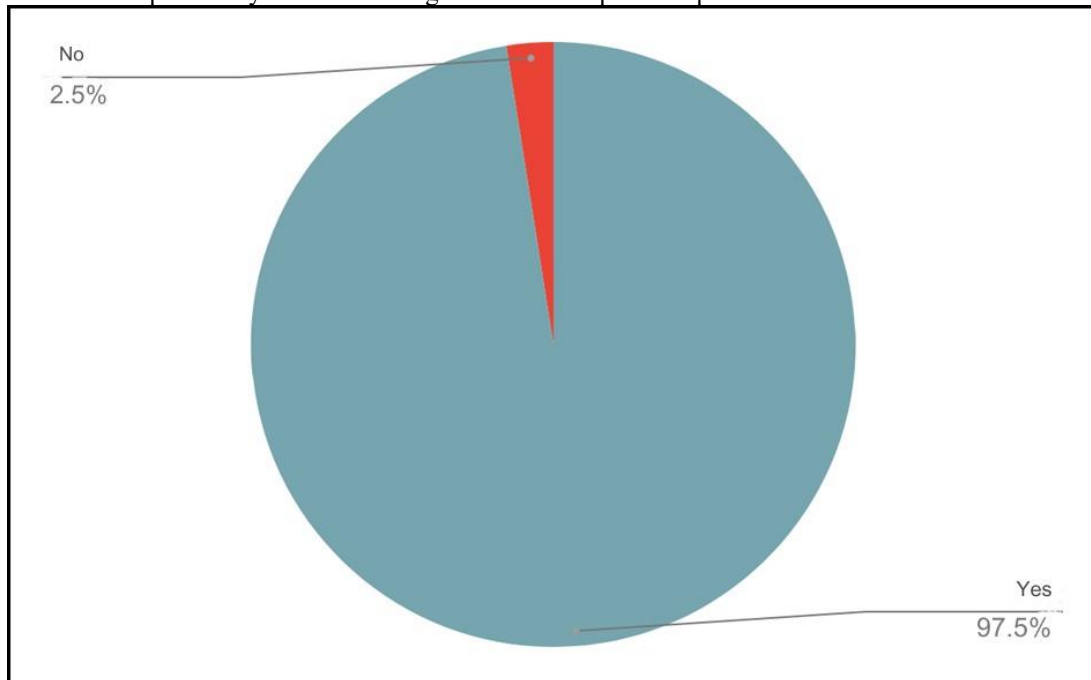
Source: Survey data (2024).

The analysis of the results reveals that many of the participants, 78 out of a total of 80, emphasized that they did, believing that gamification helps in the process of school inclusion. This predominance of positive responses suggests a strong acceptance and recognition by teachers regarding the potential of gamification to promote the inclusion of students in the school environment. The interpretation of these results indicates that teachers perceive gamification as an effective tool to create a learning environment that is more inclusive, motivating, and adapted to the individual needs of students, thus contributing to the promotion of a more equitable and accessible education for all.

Subsequently, teachers were asked how gamification helps in the process of school inclusion. Graph 2 shows the results.

Source: Survey data (2024).

The results reveal that the participants highlighted several ways in which gamification helps in the process of school inclusion. Most teachers emphasized the importance of the individualized adaptation provided by gamification. This adaptation makes it possible to adjust educational activities according to the specific needs of each student, ensuring their active and effective participation in the learning process.

In addition, many teachers highlighted the greater engagement of students in gamified activities. This suggests that gamification makes the learning environment more attractive, motivating and stimulating for students, promoting their active participation and contributing to a more inclusive school environment.

Another relevant aspect highlighted by the participants was the personalized teaching offered by gamification. This approach allows teachers to tailor content and teaching strategies according to each student's individual characteristics, thereby meeting their specific learning needs.

Finally, some participants mentioned the reduction of barriers provided by gamification. This suggests that gamification contributes to overcoming learning obstacles, making the educational environment more accessible and inclusive for all students, regardless of their abilities or limitations.

These results indicate that gamification is perceived by teachers as a valuable and versatile tool to promote school inclusion, offering a variety of benefits that meet the individual needs of students and contribute to a more equitable and enriching educational environment.

Graph 3. What is the main difficulty for the applicability of gamification to the school inclusion process?
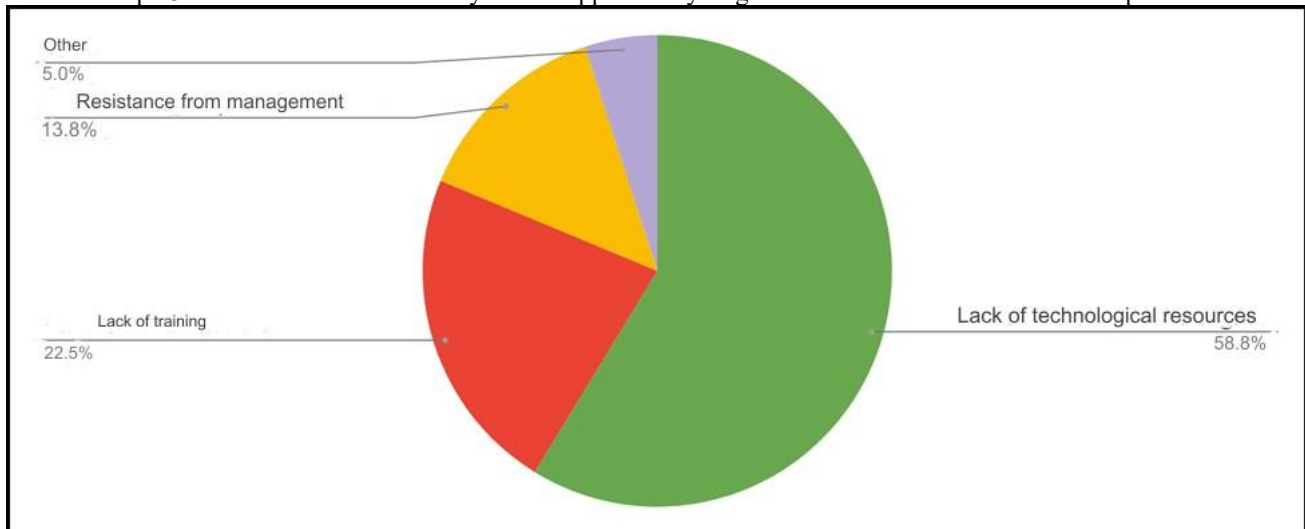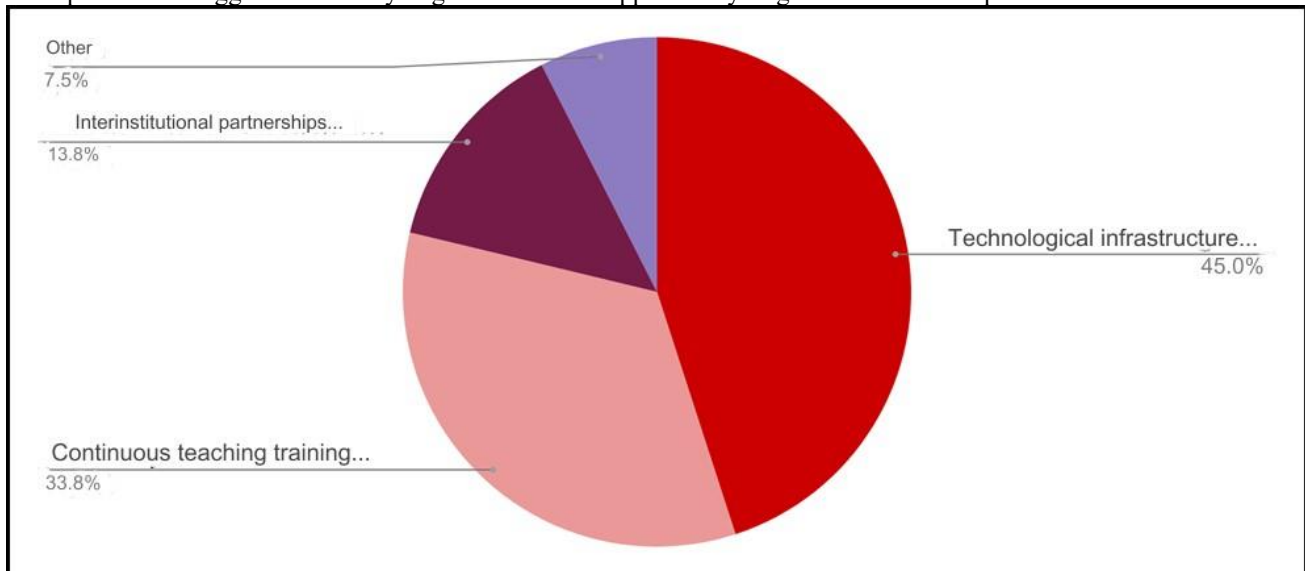

Source: Survey data (2024).

It is verified that the lack of technological resources is pointed out as the main difficulty for the applicability of gamification in the process of school inclusion. This difficulty can include the absence of adequate electronic devices, such as computers or tablets, and a lack of internet access in some schools or communities. The reliance on technology to implement gamification strategies can limit its applicability in educational contexts where these resources are scarce or non-existent.

In addition, a portion of participants highlighted the lack of training as a significant challenge. This suggests that many teachers may not be familiar with the concepts and practices related to gamification, which makes it difficult to implement them effectively in the classroom. The lack of adequate training can generate insecurity and discomfort among teachers, leading to resistance to the adoption of gamification as a pedagogical strategy.

Another difficulty mentioned by the participants is the resistance on the part of the school's management or administration. This can manifest itself through institutional policies or guidelines that do not encourage or support the implementation of innovative approaches, such as gamification, in the school curriculum. Resistance from school leadership can create additional obstacles for teachers who want to adopt more inclusive and technological practices in their classrooms.

Graph 4. What suggestion would you give for a better applicability of gamification in the process of school inclusion?

Source: Survey data (2024).

The results show that the participants identified three main suggestions to improve the applicability of gamification in the school inclusion process. The majority of respondents highlighted the importance of investing in accessible technological infrastructure, which suggests that the availability of adequate technological resources is crucial for successfully implementing gamification strategies in schools. This includes ensuring access to electronic devices and the internet in all educational institutions.

It is also noteworthy that many participants emphasized the need to offer continuous teacher training. This indicates that teachers recognize the importance of acquiring specific skills and knowledge on how to effectively apply gamification in their pedagogical practices, including adaptations to meet the needs of students with disabilities.

Another suggestion highlighted by the participants was the promotion of collaborative inter-institutional partnerships. This suggests that teachers recognize the importance of working together with other schools, businesses, civil society organizations, and even families to share resources, knowledge, and good practices related to gamification. This collaboration can amplify the impact of gamification on the process of school inclusion and facilitate the exchange of experiences between different educational contexts.

FINAL THOUGHTS

Through this research, it was possible to verify the applicability of gamification to the process of school inclusion. Most participants demonstrated that they believe that gamification is an effective tool to promote the inclusion of students in the school environment. This recognition suggests a solid acceptance and appreciation of the potential of gamification on the part of teachers. They perceive gamification as an approach capable of creating a learning environment that is more inclusive,

motivating, and tailored to the individual needs of learners, thus contributing to a more equitable and accessible education.

By analyzing how gamification helps in the process of school inclusion, the results highlighted several ways in which this approach can benefit students. Teachers emphasized the importance of individualized adaptation, increased student engagement, personalized teaching, and the reduction of barriers provided by gamification. These aspects highlight how gamification can create a more attractive and inclusive learning environment, where all students feel valued and motivated to actively participate in the educational process.

However, despite the recognition of the potential of gamification, the results also showed some difficulties for its applicability in the context of school inclusion. The lack of technological resources, the need for continuous teacher training, and the resistance of school leadership were identified as the main challenges faced by teachers. These difficulties highlight the importance of investing in technological infrastructure, providing adequate training for teachers, and promoting a school culture that values innovation and inclusion.

Faced with these challenges, the participants suggested three main strategies to improve the applicability of gamification in the school inclusion process: investment in accessible technological infrastructure, provision of continuous teacher training, and promotion of collaborative interinstitutional partnerships. These suggestions reflect the need for an integrated and collaborative approach to address the obstacles and seize the opportunities offered by gamification in promoting more inclusive and equitable education. Thus, by adopting these measures and promoting the effective spread of gamification in schools, we can move towards a more accessible, motivating, and student-centered education system.

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