International Journal of **Human Sciences Research**

GAMIFICATION IN DISTANCE EDUCATION AS A INSTRUMENT FOR STUDENT ENGAGEMENT IN HIGHER EDUCATION

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Abstract: Digital Information and Communication Technologies (TDIC) provide a new path to be followed, with challenges and opportunities that make the teaching-learning process more effective and dynamic. Distance education (EAD) has a better development with the emergence of technological tools, with greater access and advancement of the internet. And one of the biggest challenges that teachers have been facing is getting students to engage in achieving quality in distance education. This article aims to promote the debate on the possibilities that gamification in Education provides for the virtual classroom in higher education to become more attractive and pedagogical practices can reflect the need for digital inclusion in contemporary society.

Keywords: Distance Education; gamification; engagement; quality in higher education.

INTRODUCTION

The use of Digital Information and Communication Technologies (TDIC) expands access to education, allowing students a new way of building knowledge through technological innovations. Castells (2003) argues that the emergence of new technological tools and the greater interaction they provide in the current conjuncture are essential in our daily lives, as a strategy of innovation and rationality in the development of different activities.

The use of technologies in the teaching-learning process is essential to accompany the social, cultural and technological changes that are integrated into everyday reality, as Morin (2007) says. So, the insertion of technological tools contributes for the teaching-learning process to have a better quality. As students use the Virtual Learning Environment (VLE), with new technological tools, they tend to connect more with the content, with a view to interaction with the various innovative technologies.

Gois and Signori (2020, p. 1) comment that "the biggest challenge in distance learning today is how to retain students during the teaching-learning process". Since the process of retaining students is intrinsically linked to the educational tools available in the VLE, thus providing a higher level of engagement.

In this sense, the higher the level of student engagement, the higher the quality of teaching and learning. But how to maintain this engagement and reduce absenteeism? The answer is to keep the teaching-learning process in constant renewal, as the interaction between student and teacher is fundamental to achieving the quality of teaching (GOIS and SIGNORI, 2020).

The renewal of the teaching-learning process is related to the use of TDICs that foster interaction between students and the teacher, providing a greater connection between them. A research carried out by Carvalho (2013) observed that the pedagogical practice of the teacher added to the use of sustainable technologies is the way to innovation in higher education.

GAMIFICATION IN DISTANCE EDUCATION

The distance learning modality has its importance as an instrument for expanding and accessing education, enabling a professional, social and cultural formation to the citizen. This modality is also inclusive, as it enables access to higher education for students who are far from urban centers, which concentrate the largest number of on-site Colleges and Universities. In the same way, it allows students who do not have time availability, due to the incompatibility of the conventional hours of face-to-face classes with the working day, greater flexibility in their study schedules, being able to dedicate themselves to studies at the time that best suits

their schedule.. Therefore, the commitment is with the integral formation of the students, passing through the educational quality in order to guarantee the inclusion of all.

Considering the need for a higher level of engagement, gamification is a pedagogical proposal that aims to articulate the different levels of teaching and learning, helping in the production of knowledge, arousing the interest of students and enabling the use of different virtual learning spaces, with greater integration of the participants in this process.

Gamification has been gaining ground in companies, as a product, and in education, as a process, bringing as meaning, according to Kapp (2012): a style of thinking and action based on *games* that serve to engage and motivate people in solving problems. problems.

Thus, in the current configuration of society that communicates, obtains information, learns and has fun through digital means, a gamified virtual environment in education brings the issue of playfulness, so important in the teaching-learning process. The link between education and play is not something new, Plato (apud SILVEIRA, 1998), in Ancient Greece, already pointed out that, through play, the educator must strive to reconcile the learner's pleasures with the goal to be achieved., as this would lead him to succeed in his endeavors.

Therefore, gamification in education emerges as a methodological strategy to improve students' perception of learning and even teamwork. For, it brings intrinsic the use of game elements, game thinking and game mechanics in a non-game context (TU, et.al, 2014), transforming the conventional face-to-face classroom, in which it was defined by Erickson (2001) as the space where the teacher has the main role of passing on knowledge through a whiteboard, or, in the case of the traditional virtual classroom, which uses the interactive whiteboard in synchronous or asynchronous video classes in the context of distance education.

Obviously, for the student to have a meaningful learning, we must consider the classroom as a mixed environment of interaction, in which several activities occur simultaneously (KUSCHNIR, 2003). It is not for nothing that Nowaski (apud MORAIS, 2009, p. 15) asked: "What is a classroom for if it is not able to transport me beyond the classroom?". This is how the discussion about TDIC tools that can be used in the classroom to transport education beyond the classroom, through the implementation of gamification, arises.

THE IMPLEMENTATION OF GAMIFICATION

Gamification, as an educational tool, awakens the desire of students to learn, through the experience of *levelup,* that is, to raise their skills, going up one more level (game language), in a more concrete way with the experience of playful practice, which contributes to the development of the student's motor, cognitive, affective and social aspects, regardless of the level of education at which you are. Considering that we, as human beings, have the need to transcend, to constantly improve, to promote an immersive process, with gamification strategies, it provides opportunities for engagement in the teaching-learning process, opening space for teachers and students to experience moments exchange of knowledge, which go beyond simple fun with games.

Thus, gamification strategies must be intentionally implemented in the teaching-learning process, in order to obtain a truly meaningful experience that develops learning skills.

Gamified experiences make it possible to develop knowledge and skills beyond those

explicitly defined in the learning skills of the discipline, in a lighter and more pleasant way for the student. Learning from games can be implemented both in education and in the professional sphere, through the perception of the transcendence of what they experienced in games, such as the feeling of competence for the actions of work and how they see themselves as professionals.

Therefore, the implementation of gamification in education requires the teacher to plan the course in a different way, with a change of *mindset,* reflecting on the impact he wants to generate in the training of his students. Therefore, the gamification tools are instruments to be inserted in the teaching-learning process with the development of the content to be worked on in the course. This way, it is clear that the virtual classroom will not become a game, but the process of learning the contents of that course will have a different model.

There are different ways to gamify a course, through the implementation of tools or processes in the classroom (Figure 1). Some steps for the gamification of the virtual classroom will be addressed, with the teacher having the autonomy to develop some factors, as presented by Garofalo (2019):

a) Class objective: by defining the class objective, according to the skills to be worked on and consequently what you want to achieve with gamification. Example: the teacher can unify the areas of knowledge to be addressed through a treasure hunt, working with a sense of collaboration among students. In this case, the group activity allows students to think collaboratively, develop critical, formative and cognitive skills and competences; encompassing different areas of knowledge. For the use of the treasure hunt activity, there are some sites that can help: *flippity,* in the virtual

breakout function ; *quizz* ; or *wordwall,* among others;

b) Character or Avatar: Developing characters or avatars with students. The teacher can suggest that students use characters from works or literature, for example, if students do not use their own name;

c) Reception: In addition to the formation of groups, the teacher must explain how the missions that the students will have to fulfill will be, if they will have clues or if the teacher will give tips, that is, explain the rules of the game. The clues may be made available ostensibly or secretly, being known throughout the process;

d) Script: the teacher must define the script to be worked on, in addition to the missions to be unveiled by the students. The objective is to arouse curiosity, instigating and connecting the competences to be studied;

e) Brainstorming: after experiencing gamification, students will show enthusiasm for the experience, and the teacher must take this opportunity to promote discussions using brainstorming on the virtual board or using a website with the word cloud technique, allowing each one to indicate the keyword that most represents the gamification experience. The teacher must interpret the words that had the highest repetition rate together with the students, in a collaborative way, which will make the action more interesting. One site that can be used is *mentimeter.*

Figure 1- Five steps for developing gamification in a virtual classroom

Source: Prepared by the authors (2022).

There are several tools available for gamification in education, which can be applied both in face-to-face teaching and in distance learning. In distance learning, games can be implemented both on the learning platform, asynchronously, and during live classes, synchronously. Asynchronously, students will perform the activity individually and without the instantaneous interaction of other participants. On the other hand, synchronously, there are several benefits, such as carrying out the activity together, interacting with the professor and other students, which favors integration between all.

In this case, it is possible for students to be encouraged and stimulated by the teacher and other participants during and after the performance of the gamified activity, with *feedback* - which can be used in the assessment of learning and as an instrument of motivation in the context of education, enabling the engagement between students, the teacher and the content worked.

ENGAGEMENT IN THE PROMOTION OF LEARNING

One of the complaints of EAD professors, regarding synchronous web classes, is the low participation of students. Even using the scheduling of web classes in advance, notifying through messages on the bulletin board, in the messenger, in direct message, in recorded *web* of course presentation, or even established in the course activities schedule, most of the students do not attend the live *webs.*

The discussion about this low live presence of students encompasses several issues, such as: the profile of the distance learning student himself, who does not dispense with the flexibility of his study schedule, preferring alternative schedules to the conventional class schedules defined by the professor; the intentional desire not to interact with the professor and other students of the course; the lack of motivation to interact with the other participants in the teaching-learning process or the lack of interest and even prejudice on the part of the student in the dynamics of the virtual classroom.

Such disinterest occurs in disagreement with the current education scenario, which corroborates the new social configuration, mediated by technology; after all, we are the Knowledge Society, leveraged by globalization and technological advancement. Time passes and new generations include technological instruments in their daily lives, such as computers, *tablets, smartphones,* video games, among others (McGONICAL, 2012). The so-called "digital natives", a definition attributed by Marc Pressky to the new generation of people born in the midst of fast and accessible information via an online communication network (PRENSKY, 2001) are not satisfied with reading technical user manuals, but prefer to learn doing, in trial and error. Well, it is a generation that incorporates KNOWLEDGE into DOING, which is not a mere execution of Theory, but a practice transformed according to situations and needs. Unlike "digital immigrants", people who were educated and socialized before the digital age – also known as the Third

Industrial Revolution in the mid-twentieth century and who, after its incorporation, had to learn to use them. Therefore, these people still have analog practices in their daily lives (PESSADOR, 2010).

The new social configurations, permeated by Technology, brought several significant changes in the way of being, thinking, acting, communicating and working; therefore, it would be no different with education. We are currently going through another transition, which has been gaining ground and today, from a necessity, it has become a way of promoting education - the promotion of knowledge asynchronously and online. Therefore, many researchers have been investigating the perspective of the potential of games with educational objectives, connecting the relationship between motivation, engagement and interaction between individuals, as stated by Alves (2015, p.2):

> Learning and technology have a lot in common, after all, both seek to simplify the complex. The big difference between these two fields is in speed. While technology evolves very quickly, we seem to insist on the use of endless Power Point presentations that only make learning difficult, dispersing the attention of our learners who find a much more interesting universe on their *smartphones.*

Games are tools that naturally motivate and engage their users for hours, even if connected to a single task, with the purpose of achieving a goal. Thus, they develop some learning principles such as: identity, production, risks, interaction, problems, challenges, consolidation, among others. These are some possibilities that games make possible in the teaching-learning process in a contextualized way, provoking the engagement of participants to interact with the environment, with the situation and with other individuals (GEE, 2009).

It cannot be denied, as stated by Alves (2015), that gamified activities are fun, they can engage different audiences, with different ages, at different educational levels, such as in higher education, being directly related to the relevance of the content, to people and to the way learning is developed.

CONCLUSION

Gamification contributes to the learning process, as it stimulates the search for knowledge. In addition to encouraging the student to participate in the proposed activities, it is one of the most active ways in the learning process, allowing the student to play an active role in the interaction and construction of knowledge collectively. Because gamification is based on interactions, challenges, participation and easy access through mobile devices.

The use of these educational technological tools helps for greater interaction. However, the teacher, as a mediator of the teaching-learning process, needs to carry out other readings and obtain insights that he cannot achieve with the use of gamification tools alone, in view of the plurality of student profiles in a classroom or VLE. In this context, Signori and Gois (2020) argue that the quality of interpersonal relationships in the classroom or in the VLE is essential for greater interaction between students, the teacher and the content taught. Thus, through a qualitative research, they realized that the use of google *meet* increases the level of interaction, contributing to the change of a passive behavior, directing them to a real learning potential, with greater participation and formulation of ideas and solution of problems. problems.

The learning process based on gamification emerged with the purpose of engaging students in school activities and encouraging interactions with the teacher and other participants, overcoming missions and challenges, and conquering their rewards.

The learning process through games has raised the level of learning and left students more motivated, also contributing to a more dynamic and innovative education.

The fact is that the teacher, regardless of time or space, has always been concerned with innovating and preparing classes in order to make them attractive to students; what differentiates this current moment is the speed with which new technologies emerge. Therefore, the teacher must be in constant search of knowledge so that the updates arrive in the virtual classroom, providing the higher education distance student with something beyond differentiated practices, but a reflection on the need for digital inclusion. Since contemporary society and, consequently, pedagogical practice have undergone significant transformations that reinforce the teacher's role as a mediator of knowledge using technological resources and the student's role as proactive, co-participant and active in the learning process.

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