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**TRADITIONAL METHODOLOGIES AND GAMIFICATION: A
PROPOSAL FOR INTERACTIVE CLASSES**

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Abstract

Information and communication technologies improve educational processes, thanks to the ease they must show and interact with academic content, they are supported by learning methodologies to promote the creation of knowledge in students. The purpose of this article is to determine the differences that exist between traditional methodologies and gamification, likewise, in what context it is advisable to implement these learning strategies to improve education. The results obtained were based on an exploratory research, where academic repositories, books, indexed journals, theses and scientific articles were searched, selected and consulted, implementing an inductive-deductive reasoning, the information that was collected was subjected to a reflective attitude, persevering and paraphrasing through the method of analysis and synthesis. The results indicated that combining educational methodologies enhance various specific competencies of the students, creating a hybrid learning model. The proposal of an interactive class is based on the traditional school supported with technological instruments and implements gamification as an extrinsic motivational factor. Concluding that there are no better methodologies than others, the teacher determines when specific learning strategies are applied according to student needs.

Introduction

Education has been adapting over the years according to the new needs and behavior of the population, currently the teaching-learning processes have been characterized by applying active methodologies, where the teacher has the role of facilitator of

information of student learning (Arias, Pérez, Moreno, & Hortigüela, 2020). These changes have become more common due to the implementation of new information and communication technologies (ICT) and their infinite possibilities in the academic world, thus changing the ways of learning and especially of teaching.

Generational changes occur when new trends appear, ICTs have affected various areas of society, particularly technological, economic and cultural, creating new challenges for the training of individuals (Yong, Nagles, Mejía, & Chaparro, 2017) .

In the educational field, the implementation of ICTs does not occur at the same pace and speed as in other areas, due to various factors; lack of flexible educational models; teachers who do not use these technologies; digital illiteracy; precarious infrastructure and high costs in its implementation (Islas, 2017).

Regarding private and public education, the application of these technologies occurs more frequently in institutions that are financed by students, enhancing their infrastructure, making them more competitive compared to state entities, which depend on the budget allocated to them. assigned to carry out the respective classroom technifications.

ICTs are implemented successfully in education by being supported by methodologies that promote the intervention of students as protagonists of the classroom, enhancing them thanks to the ease they must display and interact with information. It is inappropriate to argue that using only ICT without the support of a methodology will achieve innovation in the classroom (Silva & Maturana, 2017).

In the classroom, the teacher-student relationship must be closely linked to the formation of new knowledge, where the student is motivated to get involved in the teaching-learning process. The interactive classes provide the student with spaces where he can work on his emotional, social intelligence and self-esteem (Siddig & AlKhouday, 2018).

Students associate study with memorizing, listening, reading, and repeating, ignoring the learning techniques that help them grasp what they want to learn, thus carrying out a cognitive process. The teacher must use methodologies that promote the teaching of strategies to motivate the student to educate themselves autonomously, acquiring good study habits that improve their academic performance (Llanga, Silva, & Vistin, 2019).

Learning methodologies allow the teacher to form knowledge in students. Traditional methods present difficulties due to their lack of interactivity and motivation, causing the student to memorize without understanding and repeating what is taught, promoting demotivation, boredom, and disinterest (Zepeda-Hernández, Abascal-Mena, & López-Ornelas, 2016).

Due to the lack of interest of students in classes, gamification arises as a methodology that promotes the acquisition of knowledge through the implementation of game mechanics, developing various skills and abilities that stimulate motivation, commitment, loyalty, and other positive values in the student (Rodríguez & González, November 2018).

An essential aspect is that teachers restructure traditional methodologies to develop, innovate and establish strategies that have a positive impact on education, implementing new tools and constantly training in their academic training (Peñafiel, 2020).

A study carried out by the University of Malaga on teacher perception based on the gamification of evaluation in the subject of History, concluded that applying gamification offers advantages compared to traditional evaluation, resulting in being better valued by teachers and in terms of students motivated them to continue giving these types of analysis (Colomo, Sánchez, Rioz, & Sánchez, 2020). Demonstrating that

it is an adequate methodology for students to acquire knowledge through interest and motivation.

At the Latin American level, in Colombia a gamification integration model was documented in virtual schools, where techniques, tools and mechanics that improve learning were established, the application of this methodology made students be assertive when receiving classes (Vargas, Rodríguez, & Mendoza, 2019).

Studies have been carried out on gamification in Ecuadorian higher education, highlighting that, although it is in an initial phase, the approach that was proposed does not seek to abandon the concepts of learning, but to take advantage of new trends to generate an environment of commitment and motivation to learn (Sánchez-Pacheco, 2019).

As for Ecuadorian initial education, gamification technologies have also been implemented that have allowed the development of cognitive skills. If compared to traditional education, the educational process creates a meaningful experience that strengthens the student's motivation and commitment to learning (Liberio, 2019).

The purpose of this article is to determine the differences that exist in traditional methodologies and gamification, likewise, in what context it is advisable to implement these learning strategies to improve education.

Materials and methods

For this document the literary review was adopted, through an exploratory research, academic repositories, books, indexed journals, theses, and scientific articles were searched, selected and consulted on the information that will support the problem of the subject, a reasoning was implemented inductive-deductive, starting from the particular to the specific, which allowed exploring and detailing the subject from previous research.

A comparison was made between the traditional methodology and gamification, the information that was collected was subjected to the reflective, persevering attitude and paraphrasing through the method of analysis and synthesis.

Analysis and discussion of results

Learning methodologies play an important role when creating knowledge in the student, because they consider various psychosocio-educational factors, such as: study habits, low school performance, inadequate social, educational, family environment; The teacher must identify the learning styles of the student body, and through this be able to teach them in a better way, applying a methodology that allows a natural interaction between the content to be taught and the student's learning style. (Estrada, 2018).

At present, educational methods have been adapted to the needs of society, teachers have a variety of methodologies that create specific learning, whose main objective is to form a meaningful learning, where the student relates the new information with which he he knows and subjects it to criticism. However, due to the diversity and leading role that the student has, there is no perfect methodology (LLanga & López, 2019).

Traditional education considers teaching a true art and the teacher the craftsman, where the student is considered a blank canvas to be filled with information through three strategies: verbalism and passivity; magistrocentrism and encyclopedism (Castañeda, 2013).

The verbalism and passivity strategy determines that the teaching method will be the same for all students. The review: understood as the repetition of what the teacher has just said; has a fundamental role in this method (Castillo, Ortiz, González, & Salgado,

2017). Magistrocentrism is based on the premise that the teacher is the main actor in education, being a model and guide that the student must imitate and obey; uses punishment and discipline as resources to develop human virtues, the success of education depends exclusively on the teacher (Real, 2013). Finally, encyclopedism uses the school manual as a source of information, it does not allow research from other sources and everything that is going to be learned is based on that document (Castañeda, 2013).

The traditional teaching method is expository, the assessment of learning is reproductive, and it focuses on the qualification of the result. The relationship that exists between teacher-student is authoritarian, the teacher is the sender and the student the receiver of the information. The educator is analytical, synthetic, logical, and deductive (Rodríguez, 2013). In Graph 1 the components that exist in the traditional school are detailed.

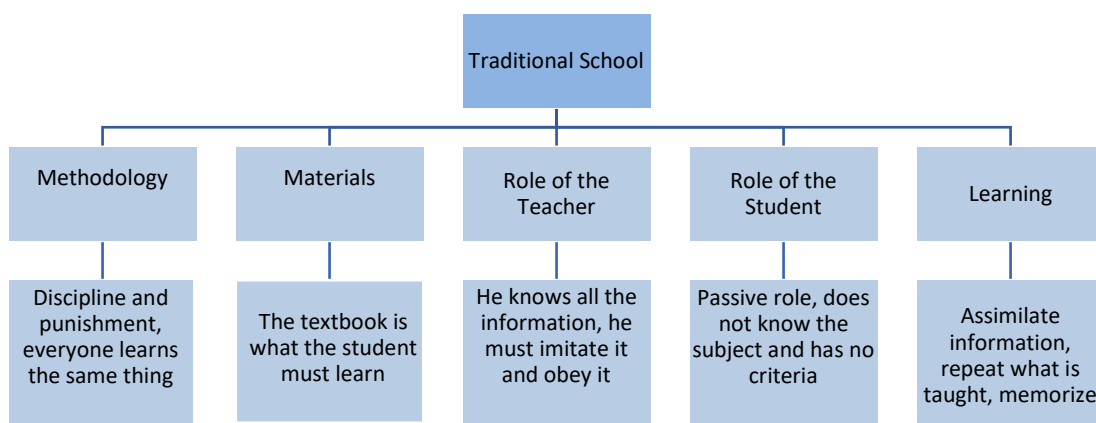


Figure 1. Organizational chart of the traditional school

Although education is characterized by its rigor as indicated in figure 1, the biggest drawback it has is the abuse of memory, if the subject that the teacher teaches does not generate expectations in the student, it will bore him and lose the interest of the class, limiting him to only retain that information to support it in an evaluation. That is why the teacher must apply the methodologies according to the differences of the students.

For its part, the gamification methodology uses game elements to encourage students to get involved in the class, guiding motivation, improving retentive skills, innovating in evaluation processes, group learning among participants and redesign of the models for the acquisition of knowledge (Contreras & Eguia, 2016).

The proposed methods pose certain non-playful processes as transitory towards games, where the student assumes the role of player and the central figure is free to interact with the elements of this; To move forward, you must solve the challenges that appear periodically; They are rewarded with incentives such as badges, scores, or items (Álvarez & Polanco, 2018).

Regarding the fundamentals of the methodology, three factors are considered: The dynamics, the mechanics, and the components. According to the author (Werbach, 2012), it determines that the dynamics are the concepts the rules of the activity, the mechanics are the methods that cause the game to develop, and the components are specific sections of the dynamics and mechanics, highlighting: scoring, competitors, riddles, levels, participants, avatars, awards among others. The interaction of the three factors allows the gamified activity to be carried out that is visualized in figure 2.

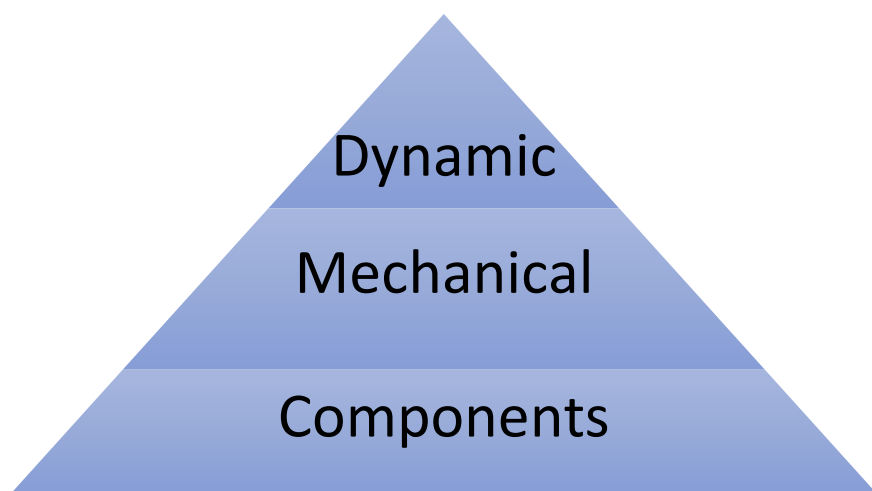


Figure 2. Pyramid of the Elements of gamification

Source: (Werbach, 2012).

The bases of gamification as seen in figure 2 is to detail which will be the components of the activity, the same ones that will allow to determine the dynamics that will occur throughout the game, in the intermediate base, the mechanics generate the dynamism to do each different phase, thus managing to stimulate the player with new challenges, finally, the dynamics are the rules that must be followed, this being a turning point in the success of gamification.

Traditional education compared to gamification has different characteristics, each of these methodologies contribute to student learning, (Prieto, Díaz, Monserrat, & Reyes, 2014) have classified their differences as presented in table 1.

Table 1. Difference between teaching and games

University traditional	Games modern online
Aburrida (in most cases for most students)	Funny (for most students in most cases)
evaluation of final judgment. The error is paid with the suspense, errors with fatal consequences: It suspends you.	You learn by erring, evaluation is formative, it produces learning. If you err, the consequence is not distressing.
Feedback only at the end. Frustration in doses that demotivate.	Immediate feedback. Frustration that stimulates and motivates to try again -
Evaluation for unique opportunities that are lost. Second license plates are distressing.	Retrying is free, it is usual.
Individual experience teamwork is not encouraged.	Multiplayer, social and team experience.
Mass deal, the same monologue for everyone.	Individualized, personalized treatment. The game responds to what each player does.
Learn this to pass this subject, period.	Good marketing and narrative. A glorious plot, you are going to achieve something great.
Most of the qualification is decided in a	Small rewards for certain actions to be

final test.	carried out encourages you to continue playing.
The striatum (memory) is worked on.	It works the whole brain, critical reasoning, psychomotor skills, social relationships.

Source: (Prieto, Díaz, Monserrat, & Reyes, 2014).

In traditional education, as shown in table 1, the abuse of memory is evidenced, it tends to bore the student, the evaluation is final, it lacks feedback, individualistic and inflexible, on the other hand, online video games apart from working with the retentive they stimulate the reasoning, psychomotor skills, and the social relationship. Learning becomes fun, the evaluation is constant, instant feedback and the treatment is personalized.

The greatest legacy that the traditional methodology contributes is the implementation of the master class, ideal to present a specific topic, raise hypotheses and updates, in order to deepen knowledge, as a counterpart, the abuse of this method can lead the student to a state passive and not very stimulating due to their low participation (Domínguez, et al., 2015).

For its part, gamification improves the student's ability to solve problems, concentration, decision-making and social development. Allowing the student to be the protagonist of their own learning, however, when this methodology focuses on extrinsic motivation (points, achievements, rankings), it can make students perform this activity only for the reward and not on their own initiative (Martínez, 2017).

An innovative teacher is not one who uses ICT in their educational planning, but one who implements it based on a methodology to enhance the skills of students. (San Andrés, Pazmiño, Mero, & Pinargote, 2018) present a list of technological resources to promote learning in collaborative spaces as presented in table 2.

Table 2. Technological resources to promote learning in collaborative spaces

Objective	Characteristics	ICT
Management and information management It	allows searching, organizing, and storing information on the internet.	Google. Alerts Google, Feedly, YoutubeEDU, iTunesU, SoundCloud, Symbaloo, Pinterest, Scoopit, Evernote, Storify, Pearltress, Paper.li, Pocket Google Drive, Dropbox
Content creation and publication It	allows creating and publishing multimedia elements (Audio, video, images, text, hypertext and applications).	Auacity. SoundCloud, Screencast-O-Matic. YouTube, Creately, Bubbl, Mindomo, MindMeinster, Flickr, Google Drive, Zoho, Prezi, Emaze, Slideshare, Author Stream Aurasma. Layar.
Communication and collaborative work	Allows collaborative work and communication between members of the educational community	Social networks: Twitter, Facebook. Tools for creating blogs. Tools for creating wikis.
Assessment of student learning	Allows the creation of learning spaces and assessments	Socrative, Kahoot, ProPofs, EDpuzzle, ClassMarker, Cerebriti, Naiku, GoogleForms.

Source: (San Andrés, Pazmiño, Mero, & Pinargote, 2018).

There are several ICTs that can be implemented to promote learning as shown in table 2, some have similarities in terms of their functionality, likewise, it depends on the approach that one technology wants to give, which can provide better results than another. The relationship that exists between the objectives of these tools with those that are sought in traditional and active methodologies, opens a range of possibilities for interleaving these strategies in order to take advantage of the available resources and facilitate the teaching and learning process.

(Terán, 2018) indicates that it is possible to combine the traditional school with digital platforms to motivate, evaluate, and guide the student in their school stage, baptizing this model as hybrid learning. In other words, to innovate in 21st century education, methodologies need to be adapted to workspaces that replace classic instruments with ICT, if they are available to both the teacher and the student.

The interactive classes should promote cognitive actions in students that favor the significant assimilation of new knowledge in their internal schemes and that allow the development of exploration strategies, learning from mistakes and planning of the activity itself. Thus, students will be able to build their own knowledge (Gil & Berlanga, 2013).

It is necessary to identify the needs of the students when planning the classes, the proposal that arises to achieve interactivity is to adapt traditionalism with ICT, maintaining its essence of being an expository method, and later reinforce the class with gamification that is based on multimedia content. Figure 3 shows the stages of an interactive class combining methodologies.



Figure 3. Stages of an interactive class

As can be seen in figure 3, the first stage is the application of the traditional methodology supported by ICT as academic reinforcement material, maintaining the scheme of being an expository method. The second stage is the feedback between the teacher and the student, to reinforce the new ideas that have been generated in the previous stage and allow the student to clarify their doubts, questions and suggestions on the subject discussed. Finally, in the third stage, the application of gamification is carried out based on the content taught, in order to motivate and consolidate knowledge through game mechanics.

In the adaptation of the traditional school, the encyclopedism stops relying on a single source of information through an online repository that the teacher has prepared, where there are contents that strengthen the knowledge to be taught. Magistrocentrism is supported by graphs, presentations, videos, and diagrams that synthesize the essential and primordial of the subject that is taught.

The biggest change is in verbalism and passivity; the most criticized axis of traditionalism due to the lack of interaction with the student; Teachers must intersperse between nourishing information and receiving feedback, making the student relate the new content with the knowledge they had acquired, thus achieving significant learning. After adapting the traditional methodology, a gamified class is held to motivate the student, becoming the protagonist of their own learning. The teacher goes from being the source of information to being a guide that helps the players to reach the goal of the activity, without giving the answers to the riddles and challenges. When applying the interactive class proposal, the traditionalism, information and strengthening of the retentive, and gamification are taken as reference points, the motivation and relationship of the previous information, thus moving from a passive education model to one where the student is encouraged to be participatory, can make mistakes, be evaluated and motivated.

Conclusion

The interactive classes aim to promote meaningful learning, apply ICT in these spaces based on learning methodology, increase motivation and the level of interactivity of students, likewise, the student becomes the protagonist of their own learning where has the power to intervene, express opinions and reflect on classroom activities. The teacher proposes learning strategies according to the needs that he wants to promote in the students and knows the educational reality of his class, where the traditional one seeks to promote memory and gamification in critical thinking, psychomotor skills and social relationships. There are no better methodologies than others, the teacher is the one who determines when the specific learning strategies are applied.

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