Barreras en el entorno tecnológico de la educación

Obstáculos no ambiente tecnológico da educação

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Abstract: Currently using innovation and technological tools in a classroom is more than being updated, it is to be connected with students and the environment in which they develop daily. The proper use of electronic tools through a technological environment will help to develop more efficiently, reliably and satisfactorily from the beginning of the teaching-learning process. However, it is necessary to analyze the barriers and inconveniences generated before, during and after its application, so a qualitative and quantitative research will be used through checklists applied to students in the third semester of the Language and Literature career, in order to establish the use of technological tools within the different subjects they are studying, whose results show that the lack of preparation of teachers to create an appropriate environment directly affects the educational training. It can be concluded that there is a need to prepare teachers in the implementation of a technological environment according to the different subjects to be taught, in order to involve more students who through technology will receive scientific information that will allow them to exercise their profession more proactively in different work environments.

Keywords: Playful environments, didactic strategies, reading comprehension and learning..

Resumen: Actualmente emplear innovación y herramientas tecnológicas dentro de una clase es más que estar actualizado, es estar conectados con los estudiantes y el entorno en que se desenvuelven diariamente. El uso adecuado de las herramientas electrónicas a través de un ambiente tecnológico ayudara a desarrollar más eficiente, confiable y satisfactoriamente desde el inicio del proceso enseñanza-aprendizaje. Sin embargo hay que analizar las barreras e inconvenientes generados antes, durante y después de su aplicación, por lo que se utilizara una investigación cualitativa y cuantitativa a través de listas de cotejos aplicadas a estudiantes del tercer semestre de la carrera Lengua y Literatura, con la finalidad de establecer el uso de herramientas tecnológicas dentro de las diferentes materias que están estudiando, cuyos resultados demuestran que la falta de preparación de los docentes para crear un entorno apropiado incide directamente en la formación educativa. Se puede concluir en la necesidad de preparar a los docentes en la implementación de un entorno tecnológico de acuerdo con las diferentes asignaturas a dictar, con la finalidad de involucrar más a los estudiantes quienes a través de la tecnología receptaran información científica que

les permitirá ejercer más proactivamente su profesión en los diferentes ámbitos laborales.

Palabras clave: Ambientes lúdicos, las estrategias didácticas, la comprensión lectora y el aprendizaje.

Resumo: Actualmente, a utilização de ferramentas de inovação e tecnológicas na sala de aula é mais do que estar actualizado, está a ser ligado aos estudantes e ao ambiente em que estes se desenvolvem diariamente. A utilização adequada de ferramentas electrónicas através de um ambiente tecnológico ajudará a desenvolver-se de forma mais eficiente, fiável e satisfatória desde o início do processo de ensino-aprendizagem. No entanto, é necessário analisar as barreiras e inconvenientes gerados antes, durante e após a sua aplicação, pelo que será utilizada uma pesquisa qualitativa e quantitativa através de listas de controlo aplicadas aos alunos no terceiro semestre do curso de Língua e Literatura, a fim de estabelecer a utilização de ferramentas tecnológicas dentro das diferentes disciplinas que estão a estudar, cujos resultados mostram que a falta de preparação dos professores para criar um ambiente adequado tem um impacto directo na formação educacional. Pode-se concluir que há necessidade de preparar os professores na implementação de um ambiente tecnológico de acordo com as diferentes disciplinas a serem ensinadas, com o objectivo de envolver mais os estudantes, que através da tecnologia receberão informação científica que lhes permitirá exercer a sua profissão de forma mais pró-activa nos diferentes ambientes de trabalho.

Palavras-chave: ambientes lúdicos, estratégias didácticas, leitura, compreensão e aprendizagem.

INTRODUCTION

Education in the 21st century, having transformed the learning process by creating several and new ways or paths for the teacher to make a correct connection with the student to create an effective communication channel or input thanks to technology, turning the classroom into a technological environment, the change from the traditional way to a new super way of education. UNESCO-IEU, (2010) indicates that the change that leads to raise the problem in adapting to the use of different technological tools that teachers do not know and must learn for the correct application and optimize the teaching-learning process. Echegaray-Bengoa & Soriano-Ferrer, (2016); Moral Pérez et al., (2014); Gavilanes et al., (2019) The main objective is to familiarize teachers with the facilities that can be obtained through the use of different tools. For Jiménez, (2014) this research is justified considering the importance of ratifying the immense advantage for the improvement of teaching through the use of innovation, considering the barriers that arose as technology developed. Rodríguez et al., (2021) The author states that "technology should be considered as one of the most useful resources to expand the communicative capacity of students and to develop discursive strategies that allow them to adequately cover the communicative needs that society is increasingly demanding" (p. 28). Referring to this idea is where teachers since several years ago took action in preparation for change and the incursion of technology in the different educational processes, there are several barriers, I will point out in my opinion the most radical "adaptation" but not for the student because this character is already immersed in the technological idea, this disadvantage of adaptation is based on the issuer ie the teacher because it is he/she who must adapt to this digital era that we are going through.

Espinosa et al., (2014); Berselli, (2018) y Barba, (2015) in their researches for decades the teaching process was submerged in an abyss where the fundamental thinking was based on the traditional, creating a gap or empty space of continuous improvement, at different points or moments of educational development it was very difficult to imagine or think about the union of different technologies that were emerging until being able to reach the technological era, where the communication channels underwent a transformation due to the wide variety of possibilities (face-to-face or virtual).

For many teachers, the learning process never ends, we will always continue to be students absorbing knowledge from experiences, experiences, research, etc. Here appears the next barrier "limitation".

Ynzunza & Izar, (2013) questions "when developing their task in technological environments will be strongly conditioned by the communications infrastructure available to them, the space available in their usual work center that allows easy integration of technology. their preparation for the use of this technology, the availability of the teacher for ongoing training to ensure that they do not lose the technological career." (p. 2). We can understand innovation, i.e. there are several factors that are limiting our technological use, but it will be a fundamental part of the teacher to find the way within a great world of possibilities and alternatives to be able to insert technology, for Molina et al., (2010) the most serious problem is when all the resources exist but the limitation is the educator's due to lack of knowledge or training of hardware and software, both elements that are now a priority for the development of the process, without leaving aside the ability to use these factors in the most appropriate way for our objective, which is education.

At the moment of working with technology as a way in education another barrier appears "lack of knowledge", we must clarify that the lack of knowledge at this stage is not related to the management of the different technological alternatives, this lack of knowledge refers to the background of the use assigned to the applications used in a class regardless of the level, since technology without guidance will not generate any positive result and rather everything will be catastrophic for both parties.

Tobón, (2019) considers "ICT and mainly networks, as an educational space, offer us a series of possibilities that we should consider when considering innovative E-A processes as long as we do not lose sight of the fact that innovation must mean progress and that it makes no sense to introduce many technological elements in classical educational processes for a mere question of fashion or current events" (p. 49). It is not the best educator or facilitator who manages more applications or uses the largest number of multimedia tools known, since in this educational process we will not teach our students to manage platforms, our mission should always be to facilitate the understanding and comprehension of the different subjects or subjects to students regardless of the educational level, never lose the focus of the class or allow technology to assume the main role, since the same without the user would not be generating anything or driving innovation. Knowing that in a digital world where the key is technology and being able to use it in the most proactive way facilitating teaching or being able to reach places where access is limited through the different tools and applications obtaining the generation of learning and later knowledge generates a great advantage in the world of education, which in the future will be the key to break barriers in limited technological environments.

MATERIALS AND METHODS

This project directs methodological attention in both qualitative and quantitative areas. The qualitative method is expressed in the scientific process, understanding its movement through the logical investigation of the theoretical support of the variables up to the interpretation of the process, and the quantitative data were obtained from the tabulations of the surveys.

Theoretical methods include:

· Analysis-synthesis: which is used to break down the object of study and find its constitution and representation in whole and in parts. This method is also applied through logical research.

· Inductive-Deductive: it allows the research to start from the particular and unique fact in the context until reaching the scientific generalization.

· Historical and Logical: provides a natural connection to the history of the object of study.

· Structural - Strategic-Functional System: it is used for modeling in this research, logical study of the parts separately, the interrelation and interaction which allows to identify the purpose of the whole system. It is the one that presents the complete system, the tutoring with the technological applications for its correct use.

Empirical Methods:

The authors make use of empirical instruments such as Observation, which allows to detect and examine the information found within the context to establish a record of certain facts through a physical document such as the observation guide, which reveals the most relevant aspects of the research.

· Surveys: applied to deepen the diagnosis of the problem for the application of technological tools in classes for students.

· Statistical-Mathematical Analysis: through this method it was possible to collect statistical information which can be observed in tables and graphs that allowed highlighting the difficulties and strengths found in each criterion evaluated.

The analysis of the student surveys shows that teachers are unaware of the application of technological tools. Additionally, there is little application of technological applications in the development of classes, consequently, classes are conducted in a traditional manner. Through the surveys it was possible to determine that students are interested in learning through different technological tools.

RESULTS

One of the questions was whether the use of technological tools in the classroom is considered important. The result was that 70% of the students totally agree, since through technological tools students will be able to learn the contents of the subjects, as well as the use of different technological applications. For some students, the use of technological tools facilitates and speeds up the learning of the contents. The use of these technological resources will be useful for future teachers.

Table 1. *Results obtained*

TABLE 1
Results obtained

QUESTION	IN FULL AGREEMENT	AGREED	MODERATELY AGREE	IN DISAGREEMENT	STRONGLY DISAGREE
1) Would the use of technological tools facilitate learning?	85%	15%			
2) Do you consider that the application of technological tools will help you to learn the contents of the subject and new applications?	75%	25%			
3) Do you think you have developed your basic technological skills?		75%	25%		
4) Will the use of technological tools in the classes you receive help you to use them in the future?	100%				
5) Would the application of more technological tools imply the use of modern equipment?		80%	20%		
6) Do you consider that the use of platforms as virtual tools meets your learning expectations?		75%	25%		
7) Is the use of e-learning devices necessary?	100%				
8) Do you consider that the correct time management makes learning more effective?		50%	50%		
9) Is it important to share with your teacher face to face?		75%	25%		
10) Do you consider it necessary to prepare teachers for the use of technological tools?		82%		18%	

It is necessary to consider the importance of the application of technological tools in the classes of the different subjects, since currently there are applications for the different areas of study; however, in the future, more studies should be carried out to determine the number of subjects that do apply technological tools.

The question that arises is whether the learning results are the same or better through technological tools than using the traditional method.

Another question is whether teachers agree to learn the use of technological tools.

Educational institutions are willing to invest in modern technological equipment to facilitate the process.

CONCLUSIONS

The aforementioned barriers are part at some point of each one of the teachers or professors, in the change of way to teach; The most important thing is not the student nor to have the most modern facilities or software on the market, the main axis is the teacher, because it will be the one who guides and manages the use of techno-inclusive alternatives in the educational technological environment, generating a great result is not only merit of the student, it is a shared satisfaction where the technique, effort and dedication of teacher-student is the most valued for a future where the objective will have been achieved, which should be to have generated knowledge and thus continue to advance for the benefit of society.

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