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Padlet como recurso didáctico en el desarrollo de habilidades cognitivas y tecnológicas

Padlet as a teaching resource in the development of cognitive and technological skills

Padlet como recurso didático no desenvolvimento de competências cognitivas e tecnológicas

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Resumen

En la actualidad, es fundamental que el proceso de enseñanza-aprendizaje incorpore recursos que fomenten la interacción y el intercambio de ideas entre los estudiantes, ya que esto contribuye significativamente al desarrollo de habilidades tecnológicas y al cumplimiento efectivo de las actividades escolares. Este artículo tiene como objetivo analizar el uso de Padlet como una herramienta interactiva capaz de estimular las estructuras mentales y fortalecer el aprendizaje. Para el desarrollo del estudio, se realizó una revisión bibliográfica de investigaciones previas relacionadas con el tema, y se aplicó el método deductivo-inductivo, partiendo de conceptos generales para llegar a conclusiones particulares, con el propósito de profundizar en la utilidad de esta herramienta educativa. Los resultados evidencian que Padlet representa un recurso didáctico eficaz que favorece la organización del pensamiento y mejora los procesos de aprendizaje. Su implementación como tecnología educativa permite desarrollar clases más dinámicas, creativas y participativas, promoviendo una interacción activa entre docentes y estudiantes en un entorno digital enriquecido.

Palabras clave: Padlet; recursos interactivos; estructuras mentales; tecnologías de la información y la comunicación (TIC); estrategias metodológicas.

Abstract

Nowadays, it is essential that the teaching-learning process incorporate resources that encourage interaction and the exchange of ideas among students, as this significantly contributes to the development of technological skills and the effective completion of school activities. This article aims to analyze the use of Padlet as an interactive tool capable of stimulating mental structures and strengthening learning. For the development of this study, a bibliographic review of previous research related to the topic was conducted, and the deductive-inductive method was applied, starting from general concepts to arrive at specific conclusions, with the aim of delving deeper into the usefulness of this educational tool. The results show that Padlet represents an effective teaching resource that favors the organization of thought and improves learning processes. Its implementation as an educational technology allows for more dynamic, creative, and participatory classes, promoting active interaction between teachers and students in an enriched digital environment.

Keywords: Padlet; interactive resources; mental structures; information and communication technologies (ICT); methodological strategies.

Resumo

Hoje, é essencial que o processo de ensino-aprendizagem incorpore recursos que estimulem a interação e a troca de ideias entre os alunos, pois esta contribui significativamente para o desenvolvimento de competências tecnológicas e para a realização eficaz das atividades escolares. Este artigo tem como objetivo analisar a utilização do Padlet como ferramenta interativa capaz de estimular as estruturas mentais e fortalecer a aprendizagem. Para desenvolver este estudo, foi realizada uma revisão bibliográfica de pesquisas anteriores relacionadas com o tema e aplicado o método dedutivo-indutivo, partindo de conceitos gerais para chegar a conclusões específicas, com o objetivo de aprofundar a utilidade desta ferramenta educativa. Os resultados mostram que o Padlet representa um recurso didático eficaz que promove a organização do pensamento e melhora os processos de aprendizagem. A sua implementação como tecnologia educativa permite aulas mais dinâmicas, criativas e participativas, promovendo a interação ativa entre professores e alunos num ambiente digital enriquecido.

Palavras-chave: Padlet; recursos interativos; estruturas mentais; tecnologias de informação e comunicação (TIC); estratégias metodológicas.

Introduction

One of the main incidents that arise within the educational field is the lack of preparation on the management of technological resources within teaching practice, which determines the teaching-learning process from a traditionalist perspective, an edge that promotes the development of proposals related to Information and Communication Technologies (ICT), to properly train future bachelors of the republic and collaterally to teachers, making it essential to implement changes in the organization, planning, elaboration of activities, to know the trends that are currently programmed in relation to the digital platforms. The educational system seeks alternatives focused on the research field, directed towards management.

Use and insertion of technological tools as a pedagogical resource in institutions educational, due to the intervention of digital media in the current era and in a way considerable in the teaching-

learning process. ICTs have become an indispensable tool in educational work, therefore, they provide means, information and resources to achieve success in the teaching-learning process learning, for this reason, teacher training regarding equipment is essential technological, from a didactic perspective, where students build their own knowledge, both individually and collaboratively (Gargallo, 2018).

One of the manifestations that limit the search for alternative solutions in the educational process are Cultural barriers through a paradigm of fear and insecurity in the face of progress technological, a problem that arises due to outdated teachers without continuous training in the management of digital tools, that is, the gaps imposed by traditionalism act in avoiding the use of computer programs or applications, due to lack of knowledge or fear of new demonstrations imposed by the globalized world, from another perspective, the era current proposes an interactive teacher, who motivates the student to obtain an education of quality and warmth.

Technological proposals that activate learning have imposed changes at the national level, promoting an education characterized by the use of tools that motivate the educating in searching for alternatives, in addition, it visualizes the efficiency of the processes aimed at strategies linked to innovation, where the inverted classroom, project-based learning and based on problems, they update the way of acquiring knowledge (Silva, Fernández, & Astudillo, 2016).

The Padlet application allows for synchronous, asynchronous and dynamic work, in turn, motivates the realization of school activities, awakens interest in acquiring knowledge,

It facilitates information and makes the student the author of his own learning, that is,

The teacher acts as a guide, promotes collaborative work and creatively transforms the pedagogical processes, with the aim of achieving academic excellence (Méndez & Concheiro, 2018).

The objective of the article is to analyze Padlet as an interactive tool to stimulate the mental structures in strengthening learning, therefore, knowing the importance,

handling and advantages, with the intention of sharing its usefulness to contemporary teachers, interested in contributing to the demands of current education in an innovative way, with the purpose of improving the teaching-learning process (Quintero, 2020).

Padlet as part of ICT, manifests positive changes in the educational field, establishing advantages that facilitate the understanding of the contents, aimed at collaborative work, making pedagogy dynamic and creative, being an innovative proposal that allows the educating, managing and creating learning spaces (Lima & Araújo, 2018).

The intention that contributes to the development of the research is the application of the tool Padlet, for which the analysis and management within the class process is stipulated, using certain instrument to insert documents, videos, images, among others, that project participatory and collaborative learning, highlighting that technology and education are determinants in the stimulation of mental structures to improve learning within the current teaching reality.

Communication processes such as the Internet have opened up improvements between users, inter-relating opinions in social groups without the need to be in physical contact, stipulating new forms of communication, creating links with scientific research, exchange of knowledge, information, in turn, changes and new teaching proposals- learning improve academic methods, aimed at the efficiency and effectiveness of the education (Islas, 2017).

Education and innovation are not indoctrination, on the contrary, they liberate the search for answers to any question that determines a reflection, for this reason, it is essential to train people who solve problems, are reflective, self-critical and involve their interaction social in values, technological resources and experiences, to act in a consistent manner towards the established advances (Varela & Valenzuela, 2020).

Communication networks create two aspects directed by technological progress, one of

They are the constant barriers imposed in the educational field by teachers, a manifestation that creates insecurity in the face of progress (Marín, Sampedro, & Figueroa, 2018). On the other hand, there arises the intervention of the teacher that breaks traditionalism and explores the handling of tools that allow and promote collaborative work, Padlet being a proposal that provides interactive and visual content at all educational stages, in addition, it is a platform innovative that has become a digital community, where group work is encouraged, exchange knowledge, improve understanding of the subject, create study circles, encouraging the curiosity and creativity of students (Palomares, Cebrián, & García, 2018).

The article analyzes the features and advantages of the Padlet tool linked to the process educational, which enables dynamic and creative learning, linked to new approaches methodological, being the means that support teaching from an innovative perspective, alluding to the fact that the pedagogical field has evolved and work is currently being done to achieve the balance of the training system, making use of digital platforms that allow acquiring the knowledge from different contexts (Rodrigo, Aguaded, & García, 2019) Current circumstances directly require updating knowledge regarding the technological tools, becoming a support for teachers when planning and

run a class, building a pedagogical process that awakens the attention of the students. students, therefore, stimulate the acquisition of knowledge in a fun way, that is, the use of digital platforms within teaching practice, allows to develop skills, promote problem solving in the teaching process and the social environment in which they develop (Paredes, 2018).

Sustainability is framed in recognizing the importance of inserting ICT in the educational field, specifically the Padlet tool that contemplates the development of skills, capacity of

critical reflection, characterized as an innovation that defines new perspectives in teaching learning within the classroom, integrating actions for changes in the guidelines established by the system, where bureaucratic work is left aside and it begins to generate

the implementation of technological-educational applications and resources that allow for education of quality and warmth.

Methodology

Padlet provides a wide educational scenario, from different perspectives, but it is little

mentioned or known, because it is considered a change that not everyone believes is necessary, therefore, it is essential to open the path of pedagogy to technological tools that facilitate the teaching role, with the aim of motivating and transforming the methodological processes, to create an environment that generates academic excellence, for this reason, some studies were analyzed about the application in order to know points of view of different authors, thus improving the teaching-learning process (Hernandez, Fernandez, & Baptista, 2010). The evaluation is directed towards quality indicators, that is, it is oriented towards processes. determined through the qualitative approach, through the bibliographic review that allowed adapt the knowledge, profiles and teaching styles of the teacher, the deductive method- inductive based on content, to develop resources using the Padlet tool as innovative strategy, through the application of the constructivist and connectivism model aims to improve student learning in order to make education productive.

Analysis and Discussion of the results

Teaching-learning process

Education has made significant progress; therefore, teachers must strengthen their skills. knowledge in the management of digital platforms, since it has been proven that inserting Methodological strategies and teaching resources when teaching improve the process of teaching

learning, with the sole purpose of being able to meet the proposed objectives, in order to, obtain a quality education (Peña & Otálora, 2018).

The teaching-learning process is the connection that exists between students and teachers, where the training activity is determined, it is at that moment when aspects such as the context in which the teaching will be developed, the appropriate method, necessary resources, contents of the activity or the evaluation criteria to be considered, to determine whether they have been achieved the expected learning objectives (Hernández & Infante, 2016).

The purpose of education is for students to learn, for this reason, resources are used technological that help to meet educational objectives, likewise, the work of the educator will designed and directed to the perspectives of a current reality, promoting the use of innovative tools and methodological strategies, to sequentially improve the traditionalist teaching practice (Escobar, 2015).

Innovation is directed towards the study of two concepts in relation to technology, where Many teachers are migrants while their students are technological natives, for whom

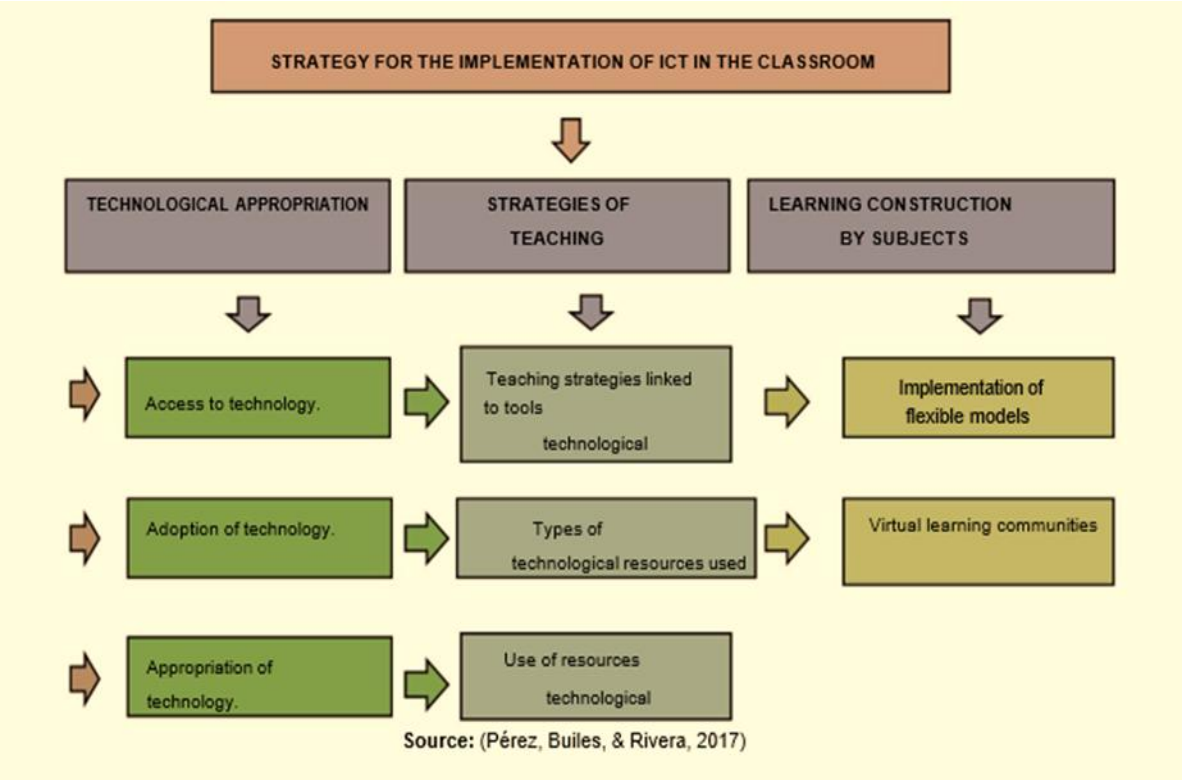
For teachers, it is a challenge to insert themselves into the digitalized world of ICT, being tools that generate knowledge, on the other hand, for students' technology is part of their lives and the daily supplement with which they have learned to live (Hernandez, 2017).

Methodological strategies, Digital language, expressed in multiple resources, causes radical changes in the ways of access to information, culture and entertainment, therefore, influences the constitution of new knowledge, values and attitudes, creating a different culture, since it provides benefits in the educational process and communication between participants, due to the image, sound and movement, providing realistic information about what is being taught and leading to students to comprehensive learning. It is important to consider the importance of the environment where learning takes place, together with constant teacher training, which must be fundamental and continuous in all areas, so that it is feasible to implement different teaching strategies. Therefore, the insertion of new methods, allows the pedagogue to strengthen his skills by providing quality and warmth teaching, obtaining better results (Ibujés & Franco, 2019). The use of teaching strategies supported by ICT is functional as long as its application is focused as an aid for the different subjects, additionally, they should benefit the development of the class, the performance of teachers and students, in addition, finding the usefulness of the technological resources in the

teaching of a subject it is necessary to base it on parameters that allow us to decide why, what for and how to use them (Basso et al. 2018).

Therefore, methodological strategies are ways of achieving set objectives, carrying out a plan to achieve them in less time, they can also be considered as criteria, principles or procedures that teaching-learning entails, therefore, correctly implement strategies and methods according to the designated activities, develops skills, attitudes and promotes quality in the process (Pérez, Builes, & Rivera, 2017). Figure 1 refers to the different strategies for the implementation of ICT.

Figure 1. *Strategies for implementing ICT in the classroom*



Source: (Pérez, Builes, & Rivera, 2017)

In short, methodological strategies must use a didactic, varied and participatory for the student, which, it is important to provide different teaching styles of innovative way, which stimulates the senses achieving better results in the training center (Macías, 2017). On the other hand, the educational process must consider the different forms of learn, taking into account that each individual has different and unique abilities, as well promote the study of multiple intelligences to improve academic practice.

Multiple intelligences

Currently students have multiple ways of learning, similarly, the need to implement improvements in the educational process, leaving behind traditional teaching. However, to achieve effective training it is necessary to differentiate that each student is different, since there is no unique learning style and every resource helps the student to develop their cognitive abilities (Vallejo et al. 2019). The planning of activities determines changes within the classroom, with the intention to improve the teaching-learning process, for this reason, it allows the reflection of skills linked to the acquired mental structures and the capacities that the students have, to perform educational tasks or solve problems that arise in the environment (Mesa, 2018).

Mental structures

Mental structures project the holistic formation of the student, where it is essential link brain function to emotions, attitudes, culture and behaviors,

acquired in the different environments in which the students develop, determined by school, family and society (Salvatierra, Vallejo, & Moya, 2019).

Under this premise, learning is directed towards developing skills, active participation and assertive communication, with the aim of generating skills that support reflective capacity, creative and innovative students, thus fostering understanding, coherence and originality of the knowledge imparted in academic centers, that is, to form competent and

Critical, with the ability to solve problems that contribute to educational development by promoting meaningful learning (Briceño, Vallejo, & Moya, 2019).

In any case, it is a fact that the introduction and contribution that ICTs have had in education It has been beneficial, because the teaching-learning process seeks improvements that promote educational quality, for this reason, the use of resources to the models has been evidenced pedagogical, thus creating multiple platforms for students to interact not only in the classroom, but also virtually through blogs, wikis, educational applications, among others.

Modernity and education

According to Avilés (2019), he states that the mission of the students is to transform the structures of the society, even more so in current times, where the modern has multiple facets, focused on

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different dimensions, whether philosophical, sociological, scientific or economic. Furthermore, the contemporary world is inserted in a technological formation, consequently, the Teachers cannot neglect, but must be part of, this new constructivist model linked to the connectivism (Hernández, Orrego, & Quiñonez, 2018). Making an analysis from a point of view of the continent, in relation to the research processes and linked to the advances technological in Latin America the problem is critical, given that there is no culture of research where the educational system is constituted as a pragmatic model and professionalizing, without promoting or carrying out research and innovation policies (Perez, Gómez, & Lara, 2018).

Currently, technology has had an impact on learning due to the benefits it provides.

ICT offers, which allows the pedagogue to have greater interaction with the environments

educational and improve coexistence, thus, the explanation between the teacher and student is directed to new educational paradigms and making traditional teaching development almost obsolete

(Levano et al. 2019).

Use of ICT in the educational system

ICTs are computer technology instruments aimed at facilitating the search and Communication, too, are applied in teaching because they contribute to the processes and tele-training scenarios in collaborative environments, in addition to new technologies increase the possibilities of acquiring or storing knowledge, through resources pedagogical that optimize the relationship between both agents such as the teacher and the student, which allows us to overcome different obstacles or challenges (Hermosa, 2015).

To achieve the proper use of new technologies, constant control by the users is required. parents and thus establish norms or rules that guide them appropriately, to obtain the optimum operation and get the most out of them, because there are benefits and risks to manipulate resources such as access to inappropriate content, entry of viruses or in some cases can cause addiction, therefore, it is important to educate them on the proper use of resources technological.

Technological tools are necessary implements in the class process, even more so, in the

vision that the current era has of educating boys, girls and young people, therefore, they are part of innovations and cooperative work, through creative activities that motivate learning and exchange of ideas, which serve as a contribution to strengthen knowledge and skills within the educational field (Pedró, 2017).

Interactive teaching resources

Within this framework, all the benefits that technology provides are taken advantage of, such as: interactive teaching resources determined as the set of auditory, visual and graphics, which affect the student when interacting or learning how to use them, which contribute to a meaningful learning (Chancusig et al. 2017). Currently, many teachers use resources in the teaching-learning process, achieving greater management of the materials used in teaching, which is why your work becomes dynamic, thus allowing you to interact in a different way, on the other hand, the model traditional that has developed throughout history in the educational context, has collided directly with the new educational trend (Campos & Ramírez, 2018).

The proper use of methodological resources provided increasing autonomy of students in the discovery, systematization and construction of new knowledge, serving as a complement to increase interest and change the teaching routine, making The interesting classes also offer the student flexibility and availability of information, the different sources of data that exist on the network, some of these sources can be web-graphy, virtual encyclopedias, online databases and web 2.0 tools (Cacheiro, 2011).

Web 2.0 has emerged from a new model of collaborative, participatory and social teaching, what, the learning system founded on learning by doing, interacting, searching and sharing will also depend on the joint cooperation of students with teachers, in this way, take advantage of the means and assume the different challenges that will exist when implemented tools (Michalón et al. 2017). According to the authors Santiago, Diéz, & Andía, (2017) they contextualize web 2.0 as active methods that promote teaching and the commitment of the student, for this reason, the tool that the research proposes Padlet, because it helps in the development of both cognitive skills as social of the students.

Padlet

By using technological resources in classes, they allow interaction to be dynamic and productive, by using Padlet as a tool, through a blank panel you can create virtual murals or whiteboards, thus sharing different contents such as videos, images, audios, diagrams, files, among others; which can be saved according to the preference of teachers or students, in this way, work is done collaboratively exchanging or sharing content (Rojas & Romero, 2019). Therefore, carrying out academic activities using technological resources creates an environment positive, where the student feels motivated and acquires learning easily, hence, the Padlet tool emerges as an

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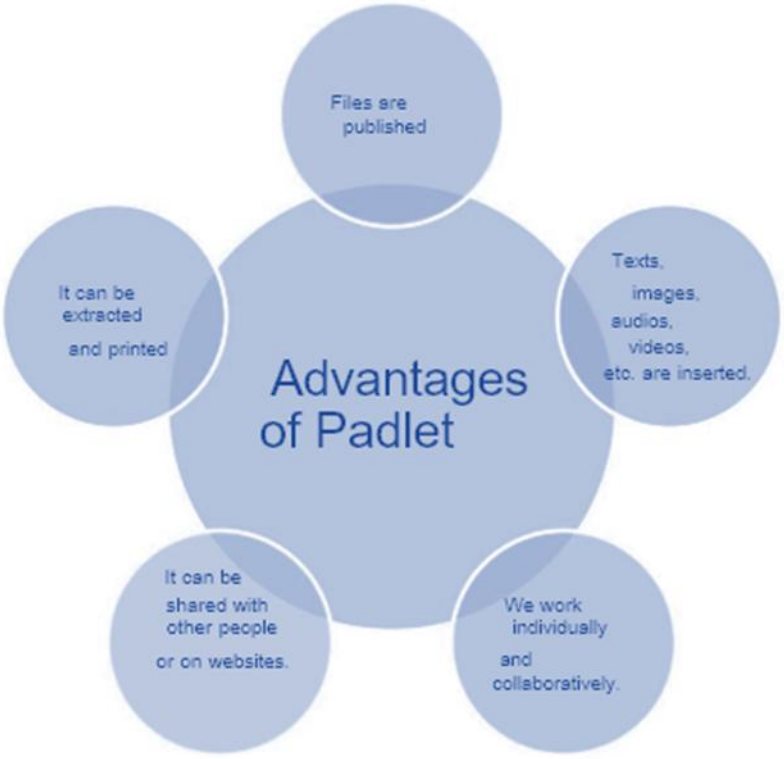
interactive medium that supports the educational process, given that its Advantages are sharing links, photos, videos or any content; creating a digital wall that encourages creativity (Santos & Concheiro, 2018). Figure 2 details the advantages of Padlet.

Figure 2. *Advantages of Padlet*



Nowadays, it is necessary for students to master different types of technologies to improve communication in the classroom, which must be of quality and develop in an environment dynamic, therefore, implementing the Padlet tool allows teachers and students collect comments made, in this way, investigate different contributions that have been established on the digital platform (Pascual, 2019). Padlet is a free application that allows you to share different presentations according to the content to be discussed, in addition, it has a variety of templates, which allow you to interact and develop digital skills, on the other hand, the tool benefits different areas of the knowledge and it is even feasible to learn another language, in addition, spaces can be created virtual forums, where discussions, debates or reflections are encouraged, in this way, strengthening collaborative writing (Morado & Ocampo, 2019).

Padlet is considered a teaching resource immersed in the pedagogical environment, it presents benefits that encourage interaction and collaboration, likewise, it uses materials that can be introduce into different academic practices, in short, it has been possible to know this tool as a changing instrument in which it transmits different multimedia content

existing ones, including links and sounds, and also offers a site for comments and discussions being handled as a collaborative, attractive and dynamic learning technique since it inserts the student's reality to take advantage of technological assets. It is worth noting that Padlet serves as a collaborative whiteboard where teaching is possible. Content with illustrations, texts or videos, therefore, it is defined as a virtual or digital wall because all kinds of multimedia content can be collected and delivered, either in an individual or group, in addition, it is used as a strategy for teaching-learning which leads to improving academic performance by increasing interest (Pardo et al. 2020). The virtual wall presentation can be exported, printed or shared on different websites, also, it is necessary to mention that its handling is made simple and feasible to be able to prepare any topic to be discussed.

In addition, the Padlet creator can share and invite others to be part of the virtual shelf, which can be commented on or edited according to the configuration of the digital whiteboard (Cala et al. 2018). In this context, it can be used for group work, in order to exchange opinions of a topic to cover, too, Padlet is used for pre-class activities, allowing students to students work collaboratively, so that teachers know the different points of view to carry out planning according to the student's knowledge and aspirations teacher in the educational process (López, 2016). While it is true that teachers are continually preparing to develop the lesson plan, in addition, promote changes and improvements aimed at educational innovation, in effect, it is necessary that Pedagogical activities focus on the use of technological tools that motivate and foster the creativity of the student.

Conclusions

The implementation of technology in education allows for improving the relationship between teachers and students, in order to optimize communication within the educational process, in order to form individuals in line with the current era, hence, interactive teaching resources help to carry out dynamic and creative classes, in this way, stimulating mental structures with the use of Padlet, considered a technological tool that strengthens collaborative learning through an innovative

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proposal, where you can insert files, images, audios, among others; in addition, it gives the feasibility of sharing the digital wall, extracting the file in various formats or printing.

Therefore, the teacher acts as a guide while the student builds his own knowledge through the interaction of the participants' ideas and the strengthening of the group work through methodological strategies, developing digital skills and abilities that promote meaningful learning.

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