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Technological Tools as Didactic Resource for Various Educational Modalities

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Abstract

Technological tools have generated a breakthrough in all areas where humans are immersed; education is one of them, technology has created a new adaptation in the educational aspect to achieve the rhythm of other sciences to keep up with the technological world, teaching resources are of great help for the development of learning in the students since a new teaching methodology is generated for them and this will allow fruitful results to be obtained in the cognitive development of the same. There are several alternatives where great changes can be generated in the educational system, venturing into areas where the student can choose various technological alternatives for further development. The objective was to analyze the use of technological tools as a didactic resource for various educational modalities, it was carried out under the documentary methodology since the information was sought from different investigations on the various educational modalities that can be used through technological tools.

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1 Introduction

Technological tools have become indispensable for humanity due to the ease they have to get involved in different fields, technological innovations have marked in the twentieth: the radio, television, sound and video recording, computing, the transition of electronic signals, by cable, by satellite, these inventions are a reality that is not only strictly technological but in turn, It is in economic and social situations (Trujillo, 2015). The world has come a long way since the arrival of new technologies where they enter the world of learning and knowledge since this helps the human being to develop in a digital era where their scope can obtain positive results for the area that they are has been developed by Unesco Manifests:

> That knowledge regarding the various ways in which technology can facilitate universal access to education, reduce differences in learning, support teacher development, improve the quality and relevance of learning, strengthen integration and improve the management and administration of education (Unesco, 2019).
> At the Latin American level, they have also ventured into this world of new technological tools that can have a positive impact in educational settings. The limitations and prospects of the technological tools in education have not varied too much, the speeches of what should be and not how to do it continue to be incurred, most reports handle information related to infrastructure, connectivity capacity, use of social networks, ages of the individuals who access these (Islands, 2017).

Within our area, we see significant scope but we must take into account that innovation does not reach all parts, due to the lack of connectivity or resources that may be available for them to be used productively in the Guevara educational area. He mentions:

> In Ecuador, in the province of Esmeralda, they show activities with technological tools and these allow teachers to design their daily activities. This research is based on the constructivist pedagogical model, which is based on the fact that the student is the builder of his knowledge through previous experiences or interacting with his environment.

That is why a technological tool is used, the same one that allows the teacher to design their didactic educational activities (Guevara, 2017; Masotti et al., 2017; Pinto-Llorente et al., 2017). Therefore, teachers must obtain timely information to develop their teachings in the most optimal way.

> Mentioned that the alternatives that can be used in the educational field can be many and not only venturing into the technological issue since there may be didactic resources that can help in the cognitive development of students. Resources are an essential element for the teaching task. "Teachers need to have different types of resources, and among them the so-called curricular materials" (Perez, 2010).

Within these curricular materials, the teacher through their resources can plan their methodologies using technology and once they arrive in the classroom, if the technological tools do not exist, they can help themselves with the information obtained in their planning time.

2 Materials and Methods

The research carried out was developed under the inductive-deductive method to be able to know about the issues raised and thus understand the importance of research regarding technological tools, teaching resources, and different study modalities, it was also done use of the documentary method which allowed acquiring information from different sources and bibliographic publications to reach the respective conclusions of the plotted topic.

3 Results and Discussions

Technological tools we

live in a digital age where teachers must have clear ideas regarding the use of technological tools as an educational resource in the classroom, to create environments that favor teaching-learning for students. At present, the

incorporation of ICT in the teaching and learning process is of great importance because it allows establishing certain factors that help in the training of students, for example, this author makes it known (Martinez, 2014).

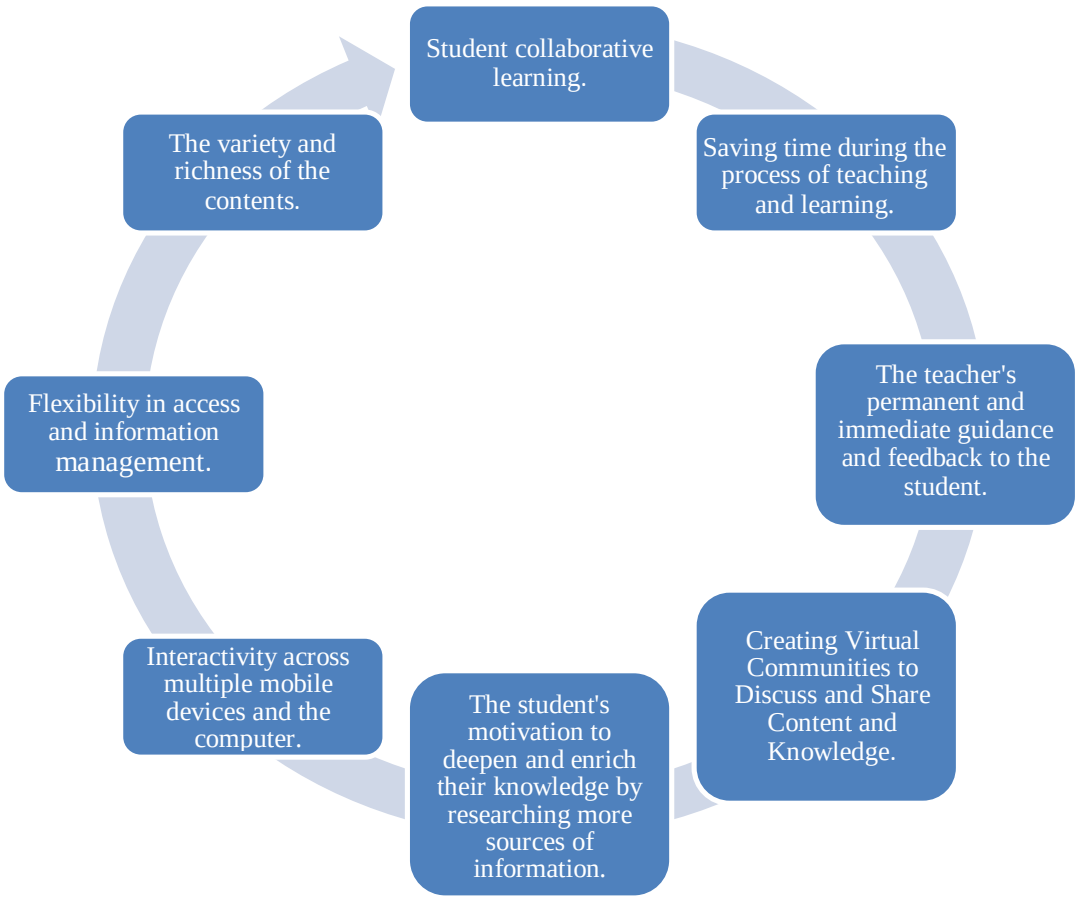

Figure 1. Factors in student training

Concerning Information and Communication Technologies (ICT) (Gonzales, 2013) He affirms that the importance of ICT has impacted society in such a way that its integration into teaching, as a key tool for training that guarantees personal development in current and future life is inescapable. Considering the Educational System, as an essential part of modern societies, it has been affected by the development of these technologies. In such a way, that the integration of these technologies in the practice of the teacher does not happen to be true instrumentation of the advantages that they could bring to the service of the traditional schemes and the roles of each one of the actors that intervene in the process educational.

As an option for the development of education, it highlights Information and Communication Technologies (ICT), since it has an important role in the daily life of teachers for students, which is why it is serving as elementary help as new teaching modalities currently since it is known that the educational system goes hand in hand with (ICT), but although it is true that the old instrumentation used by teachers is well suited in certain cases where teachers are the ones who they prefer to teach and not to break the old schemes made by themselves.

> "Classrooms in their equally virtual facet, break barriers of time and space, taking advantage of the storage of information in a cyber cloud" (Idrovo, 2017).

Methodological changes in education have led us to new communicational practices, generating synchronous and asynchronous activities through chats, videoconferences, news, emails, locations, etc. An example of this generational change that addresses the need to communicate more and better lies in a specific tool that is the Chat. (Idrovo, 2017)

> (Salinas, 2013) Points out that "The flexibility of higher education institutions to adapt to the needs of today's society involves the exploitation of information and communication technologies in training processes. Achieving that these processes are of quality implies changes in the conception of the student users, changes in the teachers, and administrative changes about the design and distribution of teaching and the communication systems that the institution establishes. All this implies methodological changes in virtual teaching environments, learning towards a more flexible model".

On the way to developing methodological changes in education, students have a basic role in the daily and consequent teaching of teachers to young people, since it will depend on the teacher that their teaching is of quality and innovative, that is why teaching can be very subjective in terms of the senior managers who demand as a reference that educational models would have to be a little more flexible so that students can understand and grasp the classes.
The revolution that technologies have and the use have changed the mentality of some teachers, but there will always be resistance in some.

> According to the author (De Benito Crosett, 2008). Information and Communication Technologies (ICT) have revolutionized the traditional concept of teaching and enable the implementation of innovative actions related to training in any field and educational level.

On the other hand, it is necessary to understand the difference between digital natives and digital migrants since the latter have greater complexity with the use of these tools, their management is complicated until they collapse and they do not carry out the activities they had in a correct way. mind. Analyzing the role that ICTs can play in the teaching-learning process opens up a wide range of possibilities. Although the efforts made for the introduction of ICTs in education have indeed focused more on technological aspects than on the more pedagogical part, ICTs are configuring new learning environments in which the elements of the instructional process change their function and way of evaluating (De Benito Crosett, 2008). The development of these technologies has come to change the methodology of evaluating, we see today how the use of technological programs can satisfy this resource.

Gómez & Macedo (2010) Starting from the perspective of these Peruvian authors on the importance of incorporating ICTs in the educational system "ICTs are intended to be a means of communication, the channel of communication and exchange of knowledge and experiences. They are instruments for processing information and for administrative management, a source of resources, a recreational environment, and cognitive development. All this leads to a new way of developing a didactic unit and, therefore, of evaluating because the ways of teaching and learning change, the teacher is no longer the manager of knowledge, but a guide that allows the student to be oriented his learning: In this aspect, the student is the "protagonist of the class" because it is he who must be autonomous and work in collaboration with his peers".

Teaching resources

The current world is so changing that little by little technologies have been integrated into various branches of human life.

> Focusing on the new reality of the globalized world, and the daily advances that are made at the level of technology, education must be coherent with this and deliver qualified and competitive human beings to society; therefore, technology as a teaching resource in the classroom becomes a necessity rather than a strategy (Avila, 2012).

For this reason, education emphasizes giving students to society who are involved in this world of knowledge, that is, they have more ability to solve problems by incorporating the methodology that is currently being used. Mentioning that the didactic resources that are those materials that are used for a new and innovative teaching Moreno mentions:

> The didactic resources are those educational materials that serve as mediators for the development of the student, favoring the teaching and learning process and facilitating the interpretation of the content that the teacher has to teach, in addition to optimizing the process by providing an interactive tool for the teacher (Moreno, 2018).

In such a case, the inclusion of technologies does not leave aside the use of these resources; rather, they make this area a little integrative, since it would be easy to search for information and in turn impart it within the classroom. The use of technologies is very varied, it gives us a series of alternatives to be able to use it in the area that we can know how

to use them, mentioning education is one of the areas where it is mostly used at present since the Virtual studios need these tools to fulfill their respective planning.

> Computer technologies have a large number of elements that allow transforming teaching-learning processes, as something playful and dynamic, leaving aside monotony in the classroom and traditional teaching (Avila, 2012).

One of the advantages of using these technologies is that the classes are transformed into a different environment and this is good for capturing the attention of the students so that there would be a better environment within the classroom with the incorporation of these tools. The benefits obtained from the use of teaching resources are mentioned below in figure 2.

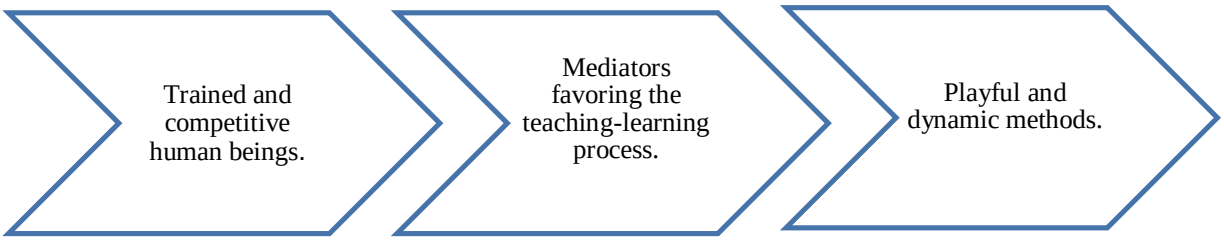

Figure 2. Benefits of the use of didactic resources

Coinciding with the authors, we verified that the didactic resources are a good strategy for the development of the student, this means that the process of updating with the technological tools is included, as this will help to achieve fruitful results. As it is exposed in graph number 1. The benefits that they offer are several, for example, that they approach the students to real-life situations representing these situations in the best possible way so that they thus have more real impressions on the topics that they study.

> On the other hand, a great benefit of these is that they help to minimize the workload of both teachers and students, apart from facilitating the understanding of what is studied by presenting the content in a tangible, observable, and manageable way, which reaches maximize student motivation to learn in one way or another (Gutierrez, 2016).

It is necessary to know that there are also disadvantages to this since the main resource today is technology, which will have a high cost of acquisition and maintenance of computer equipment; It can also generate addiction in terms of the use of these means and turn, the appearance of visual fatigue and saturation (Uapa, 2015; Membrives et al., 2016). This way of learning intends with all this that children come to learn because they want to do it and feel the desire to do it, generating in them curiosity, the desire to investigate by innovatively presenting class topics.

Educational modality

An educational modality is understood as the specific way of offering an educational service to administrative procedures, learning strategies, and didactic supports. In this sense, a new modality implies significant changes in the conception of how to educate. One of these was caused by the introduction of ICT, in principle, as a support to the teaching and learning processes and, later, in a radical way, innovating educational schemes (Hernandez, 2019).

It refers that an educational modality is a set of specific procedures to execute the educational work, it contains tangible results through a previous organization that connects with the educational curriculum, considering the qualities, capacities, and needs of its students, using materials and resources according to the requirements. They are forms of school and curricular organization that seek to respond to the characteristics, specific training needs, and particularities of the students' environment. They are distinguished in general (or basic) and specific (or complementary) modalities (Díaz & Masaútis, 2011). It can be understood more effectively than the educational modality, it facilitates the learning and construction of student knowledge through various strategies that design educational programs.

Types of modalities
Face-to-face this

Is the most common type of study in higher education institutions and most of the careers have face-to-face programs. It is a face-to-face modality when both teaching and learning practices take place in real-time between teacher and student. Almost all universities are based on this learning modality (Torres, 2015). This modality is the one that is carried out in classrooms or educational establishments, having direct contact between student-teachers under a certain time and pre-established hours. It is detailed in figure 3, characteristics of the face-to-face educational modality.

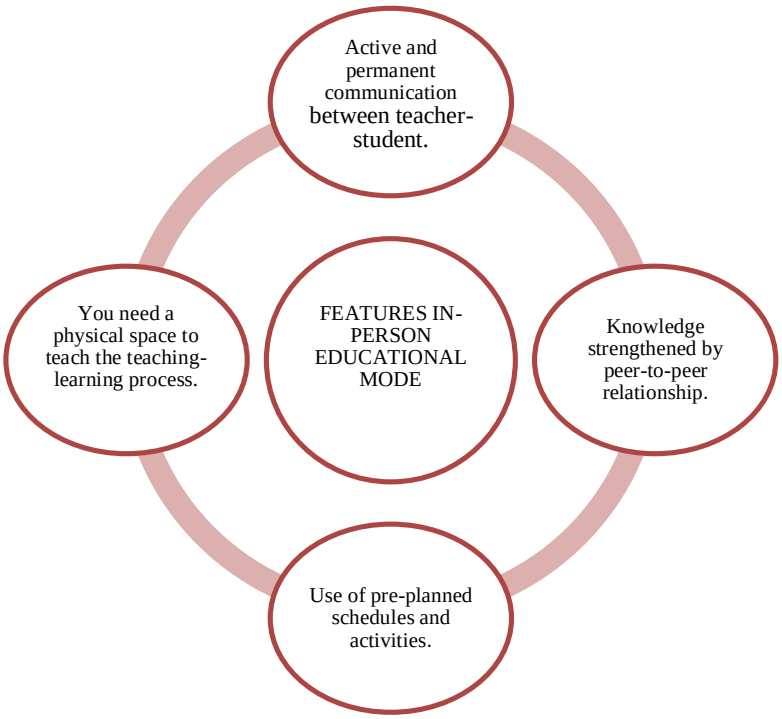

Figure 3. Characteristics of the face-to-face educational modality

Blended

Blended education - mixed or hybrid - refers to the joint use of classroom activities - face-to-face or face-to-face - and online activities - not face-to-face or distance (Amato & Novales, 2014). This educational modality consists of the union of several actions both virtual and face-to-face to enhance and build knowledge, blended education requires and uses active technology, this type of learning can be considered as autonomous. Blended education requires a change in attitude and teaching techniques by teachers since the rote and rote have no place in this process because the student becomes the generator of their knowledge based on the materials designed by the teacher (Salinas et al., 2019).

It is detailed below in figure 4, characteristics of the blended modality.

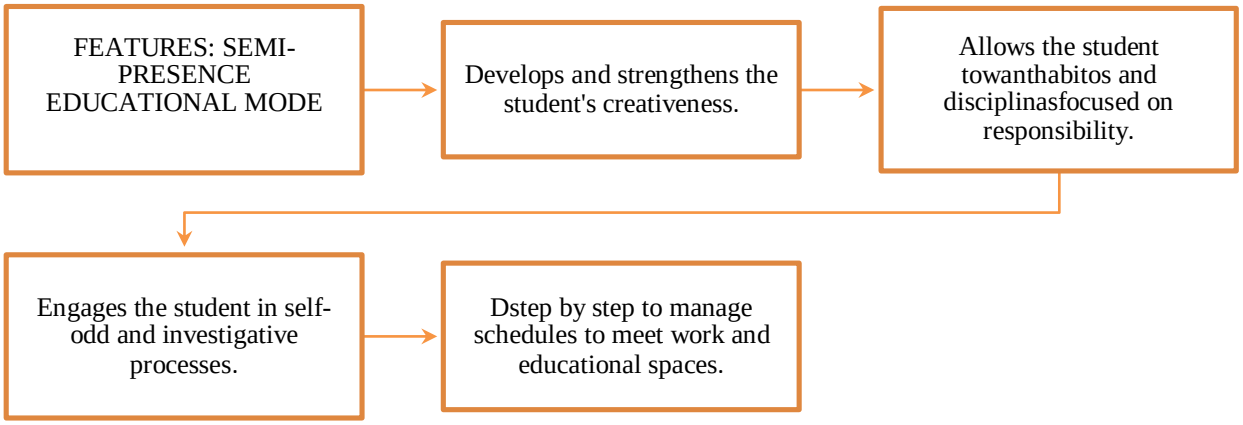

Figure 4. Characteristics of the blended modality

Distance-Virtual

This educational modality has the purpose of promoting training through an autonomous process of student learning, with the support of tutors and supportive educational material in virtual learning environments. (educacion.gob.ec, 2020). Virtual-distance education today involves a better visualization regarding the requirements for imparting and acquiring knowledge in the learner, without a doubt, it demands and requires greater personal demand and responsibility for those who wish to apply it, emphasizing that this educational modality You need prior knowledge for the proper use of new technologies.

It consists of **a form of study**, where people over the age of 18, who were unable to finish high school or high school for whatever reason, can now do so. With this new modality, they will have the opportunity to **complete their studies of General Basic Higher Education and Baccalaureate** (Vieira, 2019; Houdé, 2000; Casey et al., 2005).

This modality of distance-virtual education makes use of innovative methods so that learning is achieved and built, without a doubt it emphasizes the autonomous organization of the student.

It is detailed below in figure 5, characteristics of the virtual-distance educational modality.

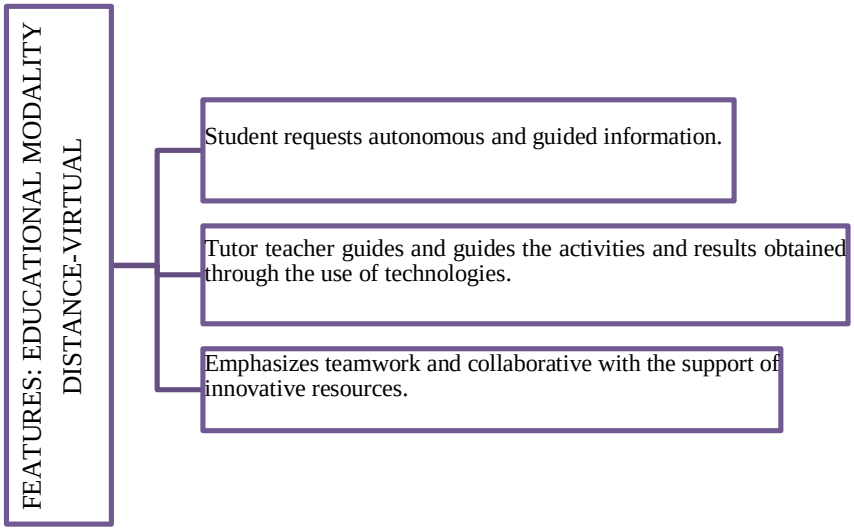

Figure 5. Characteristics of the virtual-distance educational modality

Home modality homeschooling

is a rapidly growing and widely accepted educational modality worldwide; however, it generates opposing positions based on aspects such as academic performance, socio-initial development, and adaptability to structured environments of home-schooled students (Hoeneisen, 2014). It is understood that the home is transformed into a lifestyle for parents who choose this teaching-learning method for their children, "This is a modality of a home visit, that is, the service reaches the children's home, where they need this attention and, above all, it is a joint work, shared with the parents and the community" said the official (Diario El Universo, 2018).

A home study is an option that aims or tries to group all educational facilities in the family context provided by the other study modalities, sometimes this education facilitates them and gives more possibilities so that households can have greater control regarding care and knowledge results. In general, parents of children and adolescents are responsible for imparting information for the acquisition of intellectual learning. In general, this type of modality can be considered one of the first that has existed in education, transcending knowledge from generation to generation within the family environment.

It is detailed below in figure 6, characteristics of the home educational modality.

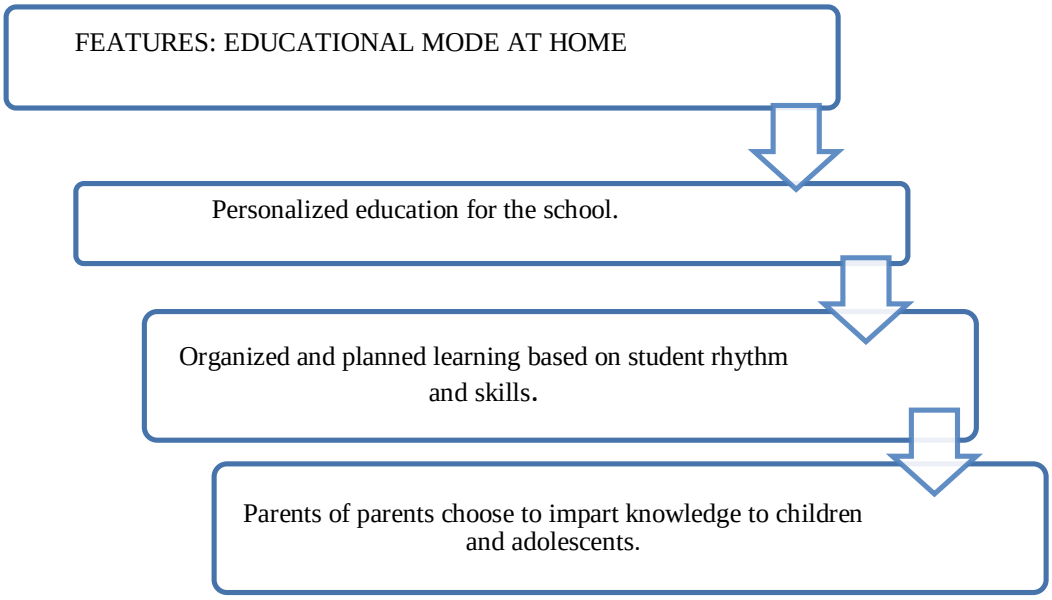

Figure 6. Characteristics of the home educational modality

The benefit of the use of technology in education increases the quality of the educational process because it allows achieving goals where there will be better communication between teachers and students, the technological tools are vitally important for the educational system, since it favors the teaching and learning of students and teachers.

4 Conclusion

The different forms of learning are intended for children to learn because they want to do it and feel the desire to do so, generating in them curiosity, the desire to investigate through the presentation of class topics in an innovative way. The educational modalities are a service that offers society to achieve necessary and essential achievements in the teaching-learning process, achieving the objective of facilitating a better construction of knowledge for children and adolescents, using innovative strategies and resources for satisfactory results within the curricular programs.

Conflict of interest statement
The authors declared that they have no competing interests.

Statement of authorship
The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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