# PROGRESS OF TECHNOLOGY IN PEDAGOGICAL SPACES

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SUMMARY

Innovation is currently needed in the teaching-learning process for education to be carried out successfully in educational spaces. In view of this, the main objective of this paper is to present a discussion on the teaching and learning process between technologies, methodological innovations and interactivity, providing examples of innovative methodologies that have changed the educational context. It is known that educational institutions that do not invest in technologies and new methodologies do not attract students to study and, as a consequence, do not advance in relation to those that do. The methodology used in this study was a bibliographic research carried out on academic websites such as SciELO and Google Scholar with authors of articles and websites between the years 2011 and 2021. Given what was researched, it is possible to consider that, today, institutions need to reinvent themselves and, for this, it is necessary to use technologies and new methodologies taking as a reference schools that have changed their curriculum and methodology, such as the Marista school in Brasília, which makes technology a teaching-learning methodology using instruments and tools that increase and facilitate interaction, providing more enjoyable and attractive learning and teaching.

**Keywords:**Technology. Teaching-learning. Teaching Models. Innovations in Methodologies.

*ABSTRACT*

Currently, innovation in the teaching-learning process is needed for education to be successfully carried out in educational spaces. Therefore, the main objective of this work is to present a discussion about the teaching and learning process between technologies, methodological innovations and interactivity, bringing examples of innovative methodologies that have changed the educational context. It is known that educational institutions that do not invest in technologies and new methodologies do not attract students to study and, as a consequence, do not advance in relation to those that invest. The methodology used in this study was a bibliographical research carried out on academic sites such as SciELO and Google Scholar with authors of articles and websites between the years 2011 and 2021. In view of what was researched, it is possible to consider that, at pre -

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sent, institutions need to reinvent and, for that, it is necessary to use technologies and new methodologies having as reference schools that have changed their curriculum and methodology, such as the Marist school in Brasília, which makes technology a teaching-learning methodology using instruments and tools that increase and facilitate interaction, providing a more pleasant and attractive learning and teaching.

**Keywords:**Technology. Teaching-learning. Teaching Models. Innovations Methodologies.

**1 Introduction**

The proposal discusses technology and teaching-learning, since it is increasingly being implemented in the educational scenario. With technology being present in today's society, it is only natural that it is also present in education. Students are constantly connected and demand innovations in the classroom. The use of technological resources in education is very interesting, since they tend to captivate students and make them more interested in the content of the classes. The use of technology in education is rapidly taking up more space in our social life.

Therefore, educators need to be constantly trained. The use of technology brings students and teachers closer together, in addition to being useful in exploring content in a more interactive way. The student goes from being a mere receiver, who only observes and does not always understand, to a more active and participatory subject. It helps the teacher in the search for content to be worked on. Today, with all the advances, there is a need for adaptation, for openness to new things, in order to make classes more attractive, participatory and efficient. Technologies are also powerful tools for fostering an environment of opportunity, offering means and subsidies to promote an environment of greater equality for all, where they tend to improve the way of teaching. In this way, resources are motivating and efficient strategies because they allow them to create diverse and attractive activities that encourage student participation in the process of constructing their own knowledge.

Furthermore, the sharp advance of technological resources makes it clear how necessary it is to support education professionals who are not part of the digital era of learning, in the face of these latest technologies, as it facilitates the development of the subject matter, providing better interaction between the student and the content. However, educational technology is no longer seen as a mere tool, but rather as an efficient and effective pedagogical instrument that is already well-established, and is now considered as a structuring element of another way of thinking about education, being subject to pedagogical objectives, with the aim of expressing the diversity, culture and reality in which each school is inserted.

To this end, resources must be used in a way that favors the full development of students, where they seek meaningful learning. In short, teachers cannot be complacent; they must be constantly trained to use them in a favorable way, seeking innovative and creative means. It is clear that the use of technologies is a fundamental pedagogical resource to make classes more stimulating and appreciated. Including new technologies is necessary to encompass a set where managers, teachers and other professionals can work together, favoring quality education for everyone involved. The use of technology in the classroom is quite valid in the sense that it enables "more creative, autonomous, collaborative and interactive teaching and learning."

**2 Successful Technologies and Methodologies applied in the classroom.**

The conventional school environment is suffocating for anyone, especially for newcomers, as it places pressure on stressed teachers, dissatisfied young people and children. Authoritarian, centralizing and outdated methodologies are insisted upon, with poorly paid teachers who are unprepared to teach. The educational system, which is on a new trajectory, is exchanging disciplinary methodology for more focused methodologies. in active learning with relevant readings, activities, games and challenges (Moran, 2013).

According to Barros (2019), the use of information and communication technologies in the formulation of educational tactics can provide a better learning scenario, providing research mechanisms and differentiated ways of applying the subject matter. Teachers need to seek other mechanisms that emphasize students, protect their stimulus and allow their independence. Thus, in order to alleviate the gaps caused by the conventional methodology, new teaching and learning methodologies have been suggested in the expectation of integrating practice and theory, focusing on active learning methods. The active method consists of creating a procedure with a pedagogical and educational meaning that instigates action and reflection procedures (Garcia; Oliveira; Plantier, 2019). In view of this,

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an example of an innovative methodology is:

> Google for Education is a customizable platform for schools, with a collaborative learning proposal, allowing access for teachers and students. It can be used inside and outside the classroom at any time, all you need is a device connected to the internet. [...] The solution allows students to work together, even remotely, to produce a text, a drawing or any other activity. It also has different resources, such as: applications; lesson plans; digital literacy tools; virtual excursions, etc. (Colegio Verbo Divino, np 2020).

Nhantumbo (2019) argues that virtual learning environments are the most widely used digital technologies in current educational practices, since such environments are available in cyberspace and videoconferencing. Online education is a set of teaching-learning measures that strengthen communicative actions, and in it, individuals may be geographically separated, but they are together sharing data and knowledge. An example of an innovative institution is:

> Colégio Marista de Brasília, affectionately nicknamed Maristão (because it houses older students, in high school, in contrast to Maristinha, where preschool and elementary school are located) is a reference in educational technology. With an innovative profile, the school receives frequent visits from other educators and even from education departments from the rest of the country.
> – they seek to uncover the secrets behind the high engagement of students and teachers in digital tools (Cotin, 2022, p.01).

In this sense, it is possible to understand that innovation with technologies provides greater skills to teachers and students. As in the school mentioned above, students and teachers have greater interaction and due to technology, the teaching and learning of this school has become advanced, arousing the interest of other educators. Globally, they express themselves on learning theories and various authors who argue these opinions. Documentedly, these theories have helped to add to and even guide the didactic view of the teaching and learning process.

> One of Piaget's greatest contributions to education was certainly the idea of knowledge construction. In other words, individuals construct their knowledge based on external reality, and interactions between individuals are a key factor in their intellectual and emotional development. For the author, even mistakes are considered learning opportunities. Slightly different from Piaget, Vygotsky defines learning as a central process in human development, as the appropriation of knowledge, skills, signs, values, and language, involving the interaction of individuals with the cultural world in which they live. Vygotsky advocated that human development, from the beginning of life, is influenced by the environment around them, by appropriating cultural and historical meanings that surround them. (Santos, p. 7, 2018)
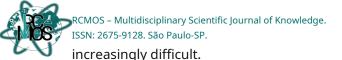
In fact, it is important to understand that innovation is associated with the introduction of planned modifications to a given object, with a view to improving it. Innovation in the teacher's performance requires teaching methods with interactivity, requiring a cluster of changes. The modernization of education must be reflected, since the dynamism of knowledge needs to have a broader meaning (Santos; Leal, 2018).

In view of this, adopting technology in the classroom has the potential to advance education in several ways. Initially, technology uses other content formats, which differs from traditional education that only uses online transmission and textual language. But it is certain that many students can learn better with a more dynamic methodology that has playfulness and diversity, which can be used with technology (Ludospro, 2022).

## 3 FINAL CONSIDERATIONS

This work has shown the importance of educational innovation with technology, new methodologies and curricula that provide educational institutions with more interactive and attractive education with positive results. It is known that technological development has been occurring very quickly in recent years, to the point that its monitoring by society, including schools themselves, has become

increasingly difficult.

Learnings indicate that mobile devices, such as cell phones, can be an ally if used as a pedagogical resource, for example, the internet accessibility that such devices provide can be used as a research resource, with the aim of adding knowledge about a given topic in a classroom discussion. Although positive contributions are found, mobile devices are still not recognized as an advantageous resource in the pedagogical environment, which is a result of the evident misuse by their users, including the students themselves who use them in the classroom for personal interests.

It is worth highlighting that it is essential in education in all educational institutions, whether they are reviewing their teaching-learning practices, with the purpose of improving by adding new tools with technologies that provide ease and agility for both teachers to teach and students to learn in an integrative way.

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