


## TEACHER TRAINING FOR THE USE OF ACTIVE METHODOLOGIES COMBINED WITH DIGITAL TECHNOLOGIES FOR TRANSFORMATIVE EDUCATION

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### ABSTRACT

When entering the educational universe, we observe that teacher training needs to be based on creative, critical, and reflective activity, as well as shared in the use of media and technologies as a language and instrument of culture, the structure of thought, methodologies, curriculum, and pedagogical relations. These new demands instigate, according to Moran (2012), the challenge of moving towards a quality education, aggregating all dimensions of the human being: sensory, emotional, ethical, and technological, for the evolution of work towards the advancement of pedagogical practices within the educational space. In this context, the problem of research arises: how to propose teacher training for the use of active methodologies allied to digital technologies for a transformative education? From the unfolding of this study, the teachers participating in the research hope to make the school a living space in which students learn from their reflections and criticality, with dialogical and stimulating spaces and teachers well prepared by an education based on more participatory methodologies that make students protagonists in the teaching-learning process.

**Keywords:** Teacher Training. Active Methodologies. Digital Technologies

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## INTRODUCTION

In the educational routine, we observe that digital technologies are strongly present in the classroom, integrated with innovative pedagogical teaching proposals, in which learning by doing is a highly relevant alternative to guide the learning processes. In this sense, Camargo and Daros (2021) describe that educational institutions observe the need to train teachers and students for a digital education model, as innovation and connectivity are the strategic pillars for a society in full transformation. The great challenge of education professionals, at this historical moment, is permeated by new realities, such as digital cyberculture and the shift to problematize teaching from the perspective of learning.

These new demands instigate the challenge of moving towards a quality education that integrates all dimensions of the human being. To this end, Moran (2012) recommends the integration of all dimensions, such as sensory, emotional, ethical, and technological, within the educational space, which more than ever requires changes and evolution for the work towards advances in pedagogical practices. It is essential to have an education that offers learning conditions in contexts of uncertainty, the development of multiple literacies, and the questioning of information, with an emphasis on autonomy to solve complex issues and problems, group work, coexistence with diversity, active participation in networks, and sharing tasks. Teacher training should also be based on creative, critical, and reflective activity, as well as shared in the use of media and technologies as a language and instrument of culture, the structure of thought, methodologies, curriculum, and pedagogical relations (Bacich; Moran, 2018).

It is always complex to determine the direction of education in the face of so many challenges and possibilities within an increasingly multidimensional and global reality. Moran, Masetto, and Behrens (2013), in the work *New technologies and pedagogical mediation*, highlight the advancement of the digital world and the occurrence of numerous possibilities, such as the arrival of mobile technologies, which can make the teaching-learning process much more flexible, integrated, entrepreneurial, and innovative. In this context, however, we find some critical points, such as the construction of knowledge in the information society, combined with the issue of the quality of education, as well as the conception of the collaborative learning process, the review and updating of the role of the teacher, with emphasis on continuing professional training (Moran, 2013).

In addition, it is necessary to understand the use of new digital technologies aimed at student learning and not just the service of transmitting information. For this, the teacher

needs to seek an understanding of pedagogical mediation with the use of technologies to improve the teaching-learning process. These new expectations provide an exchange of experiences and pedagogical practices in line with the new technological reality in which students find themselves (Moran, 2013).

It is necessary, for Bacich and Moran (2018, p. 10), to "reinvent education, analyze the contributions, risks, and changes arising from the interaction with digital culture in the integration of DICT", as well as structure the resources, interfaces, and media languages for pedagogical practice, which implies exploring the potential of integration between professional, educational, and cultural spaces for the creation of authentic learning contexts mediated by technology. In the teaching-learning process, it is necessary to boost student engagement and recontextualize teaching methodologies in the face of social practices belonging to digital culture, that is, to integrate digital technologies and resources in the development and recreation of active methodologies (Bacich; Moran, 2018).

According to Moran (2019, p. 75), "technologies are much more than artifacts and applications: they are living environments. They integrate culture and digital skills", especially in a world that mixes, in which everything is available to learn, create and share. In this understanding, we highlight the text of the National Common Curricular Base (BNCC), which brings the importance of understanding, using, and creating digital technologies in a meaningful, critical, reflective, and ethical way in the various social practices, including school ones. Thus, we emphasize communication, access, and dissemination of information to solve problems with a view to exercising authorship and protagonism in collective and personal life (Moran, 2019).

With each new day, society moves towards a new phase of media convergence and integration; according to Moran (2013, p. 14), "[...] Everything begins to integrate with everything, to talk to everything and everyone. Everything can be publicized in some media. Everyone can be a producer and consumer of information." We understand that this reality, increasingly technological and digital, brings multiplication and new possibilities of interaction of choices through a growing dialogue between the physical world and the digital world, which profoundly impacts education and the ways of teaching and learning.

In the work *The Education We Desire*, Moran (2012) describes the incongruity and distance between the desired education and the real education. Education in Brazil, for the author, needs structural changes, which would lead to an instigating, stimulating, provocative, dynamic, and active education. Increasingly, the teacher must interconnect

real and digital situations, physical and virtual contact, face-to-face and virtual learning, because "the physical and virtual worlds are not opposed, but complement, integrate, combine in an increasingly larger, continuous and inseparable interaction" (Moran, 2012, p. 9). At the same time, it is necessary to improve access to digital networks to make the school a living, pleasant, and stimulating space.

In this new reality to be desired, teachers have the function of orchestrating all these elements: the face-to-face world, the digital world, the student-student and student-teacher relationship, expanding the horizons of the educational space. In the face of so many challenges and possibilities, we need to go through the challenge of creating and allowing a new teaching action in which students and teachers participate in a joint process to learn in an encouraging and dynamic way based on creation and protagonism. It is urgent to train teachers based on new practices that contemplate the use of active methodologies combined with digital technologies, critically and reflectively.

From this context, the research problem emerged: How to propose teacher training for the use of active methodologies allied to digital technologies for a transformative education? With this challenge posed, teaching needs to meet the new demands necessary for teacher training as subsidies for coping with teaching and learning.

## **METHODOLOGY**

The investigation of the theme "teacher training based on active methodologies allied to digital technologies", was the object of study and investigation with a group of teachers participating in the online training course of the research group of the Pontifical Catholic University of Paraná, PEFOP-Educational paradigms in teacher training, which develops collaborative research funded by CNPq with subsidies for paradigmatic changes in practice Pedagogical. The investigation presented the following research problem: How to propose teacher training for the use of active methodologies combined with digital technologies for a transformative education? The general objective was defined: to analyze, together with the teachers participating in the research, the relevance of the use of active methodologies combined with digital technologies for a transformative education through student protagonism for a citizen culture. With this vision of changes regarding the needs of new pedagogical practices that contemplate the use of digital technologies with a view to transforming the school space, we sought to carry out exploratory research with a qualitative approach, of the action research type.

The research universe comprised 52 Brazilian and Portuguese teachers working in basic education. The research had the active and collaborative participation of teachers through questionnaires, text productions, and dynamic and reflective participation in a Google Classroom forum.

The teachers were appointed from P1 to P52 to safeguard anonymity. The teachers were invited to express themselves during and at the end of the investigative process through reports of the experiences during the course modules and of the collective discussions, which were recorded. In the contributions recorded, they were able to demonstrate the need for a pedagogical practice that contemplates the autonomy and protagonism of the student when working with active methodologies combined with digital technologies.

For the construction of the data, we addressed with the teachers the importance of their reports on their experiences and experiences in pedagogical practice from their perceptions about teacher training and the use of active methodologies combined with digital technologies. We then ask for your contributions via the Google Classroom forum.

The method used for document and content analysis considered verification techniques and methodological procedures organized by Bardin (2020), which understands this analytical description procedure as a category method, allowing the classification of components based on the data and elements extracted from the document analysis. Content analysis is a technique used in educational research to explore and understand the meanings underlying texts, discourses, images, or other types of data. According to Bardin (2020, p. 11), "content analysis is currently a set of increasingly subtle methodological instruments in constant improvement, which apply to extremely diversified 'discourses'". It considers an objective, systematic and quantitative description of the content itself, while enabling the analysis of meanings. In this sense, this research took into account the collection of data and information via contributions from the participating teachers, as well as the content analysis of these data and information, in order to understand the meanings and extract the meanings, communications and interpretations of reality.

According to Bardin (2020), researchers should reflect on their role in the analysis, considering their perspectives and influences, and the validity of the results is enhanced by transparency in the decisions made during the analysis process. In educational research, it often provides meaningful *insights* into educational practices, perceptions, and

experiences. Through these analyses, categories were created that will be described below based on the results of the research.

## RESULTS

Based on the advances in the research, the teachers were invited to express themselves during and at the end of the investigative process, through reports of the experiences during the course modules, of the collective discussions, in which they were recorded and recorded. The teachers were appointed from P1 to P52, to safeguard anonymity. Subsequently, the contributions of the teachers participating in the research were analyzed, coded and categorized.

In the contributions recorded, they were able to demonstrate the need for an innovative pedagogical practice that contemplates new strategies based on the use of active methodologies combined with digital technologies.

### ANALYSIS CATEGORY 1: ACTIVE METHODOLOGIES COMBINED WITH DIGITAL TECHNOLOGIES IN THE PRACTICE OF TEACHERS

The following are some reports and contributions from the teachers based on the following question: In the continuing education course from the perspective of new educational strategies, did you find it important to use active methodologies combined with digital technologies in pedagogical practices that stimulate critical thinking for a transformative education? Thus, we highlight the statement of the teacher participating in the research P (48):

"It was very interesting to present practical examples of the combination of various techniques and methods that are embodied in active methodologies and significant learning processes. As a professor of Philosophy, I highly privilege problem-based learning and in it the debate of ideas, the development of critical and reflective thinking and the collaborative work of students. In this context, very interesting and motivating pedagogical combinations are appropriate, with different 'languages' and educational environments, seeking to promote students' previous knowledge and multiple intelligences. However, there is still a lack of reorganization of the space and time of learning, its principles and its objectives so that these methodologies can be totally satisfactory for all educational agents" (P48).

The teacher's statement regarding the importance of applying active methodologies allied to digital technologies converges with the report of the teacher participating in the research P(22):



I highlight the perspective of intra and interpersonal relationships, in the search for the reconnection and change of the subjects who teach and learn, a mutual, active and meaningful relationship, especially in placing the student at the center of the teaching-learning process, this action has active methodologies that can be promoted with the use of digital and non-digital resources, without forgetting the fundamental points that are the recognition of the individual as (inter)active in/with the world, in the construction of their own identity and knowledge, and the conception of being in transformation. Bringing these characteristics, active practice will make teachers and students expand their innovative, creative and reflective skills and capacities, providing an inclusive, humanized, dialogical and meaningful movement for education" (P22).

It should be clarified that what is essential is not only technology, but a style of pedagogy structured by a communicational modality that supposes interactivity, cooperation, participation and multiplicity of strategies, connections between information and the involvement of students in the process (Silva, 2001). Increasingly, advances are needed in the search for new models capable of carrying out other knowledge and practices, as knowledge is built based on constant challenges, on educational activities that exercise imagination, curiosity and creativity (Moran, 2012). In this context, innovative learning methodologies begin to have space, which allow the necessary changes to improve quality with a focus on learning, by highlighting student protagonism and new strategies for the production of knowledge, with a more challenging curriculum and the resignification of teacher planning.

## ANALYSIS CATEGORY 2: ACTIVE METHODOLOGIES COMBINED WITH DIGITAL TECHNOLOGIES FOR THE STUDENT'S PROTAGONISM IN THE TEACHING-LEARNING PROCESS

We highlight some reports and contributions of teachers based on the following question: What is the contribution of active methodologies combined with digital technologies to the formation of students as protagonists of their learning? From this perspective, the contribution of the participating teacher P(42) emerges:

"Today they are beginning to introduce active methodologies as teaching/learning tools in which all learning dynamics are student-centered. Thus, hybrid teaching, including the technological part as a tool for work, learning and consolidation, that is, as one of the moments of learning. These methodologies reinforce teaching with the student as the center of learning. It reinforces what has been said so far, that is, the teacher instigates the issue he wants to see addressed and challenges the students. We noticed the use of different strategies with the use of technological resources that help the student to expose their learning, doubts and points of arrival." (P42).

The speech of the participating teacher P (42) converges with the report of the teacher P (44) about the innovation and dynamics of the pedagogical practice about active methodologies allied to digital technologies and the student's protagonism:

"The new pedagogical practices bring us an innovative look at our educational practices, a reflective and challenging thinking for a teaching work that integrates technology, experiences, curiosities and that at the same time leads the student to perceive himself as the protagonist of his history and his knowledge. May we look at Education as a tool that allows us to develop active citizens capable of giving opinions, seeking and understanding themselves as a thinking being who brings with him a baggage that can be mediated between knowledge and sociocultural aspects. That our evaluation is judicious, more human, and that, in addition to discipline and knowledge, it seeks to allow us to improve our didactics and pedagogical practices" (P44).

According to Masetto (2013), from this pedagogical mediation, it is possible to interpret the behavior and attitude of the teacher, who places himself as an encourager, facilitator and motivator of learning, being, therefore, a bridge between the learner and his learning, performing his teaching function to propulsion to know new technological resources, use, understand and adapt them, all this in favor of a more motivating and dynamic practice and learning process. Masetto (2013, p. 150) states that "[...] all this technology provokes the debate about its use, as well as the role of the teacher and his pedagogical mediation in the learning process". This pedagogical mediation reflects the learner's role as a subject and inserts him as the protagonist of his learning, having as characteristics the permanent dialogue and the exchange of experiences. It also presents the guarantee of the dynamics of the learning process, based on challenges and problem-situations, encouraging critical reflection and collaboration to establish connections between the acquired knowledge and the new concepts, the debate of doubts and, mainly, the promotion of exchange between learning and the society in which the students live (Masetto, 2013).

### ANALYSIS CATEGORY 3: ACTIVE METHODOLOGIES AND TRAINING FOR A CITIZEN CULTURE

Regarding the use of active methodologies combined with digital technologies for the student's protagonism and their formation for a citizen culture, the professors participating in the research were asked: Do active methodologies combined with digital technologies work on the student's protagonism for a citizen culture? From this perspective, the contribution of the participating teacher P(9) emerges:



"Currently, active methodologies respond to a need to form a citizen, as a person and a social being. They foster a liberating education, the student learns to think critically and creatively, to act with respect and awareness, to reflect on himself and on others to create his representations that will be new knowledge that will allow him to be a better citizen. Thus, the school needs to lose its walls, open up to the world and assume a social contract in the sense of the common good and the transformative need for education. (P9)

The report of the teacher participating in the research converges with the statement of teacher P (15) about training for a citizen culture:

"We need to present our students with an education that is inclusive and accessible to them, and for that the teacher and students need conditions to teach and learn, an example is when we think of teaching with the use of the computer lab and the internet in schools, data from the 2021 School Census shows us that only 36% of elementary schools have access to technological resources (computer lab, internet and broadband internet), where is the right to quality education? The education of the twenty-first century needs pedagogical practices that know how to deal with the diversity of the classroom and, for this, it is necessary to include students, first enabling accessibility, which is presented by Sasaki (2002) as being: attitudinal, architectural, communicational, instrumental, methodological and programmatic. When we offer this to our students, we open the way for their autonomy and reflection, showing that the school is attentive to the student's educational needs, enabling meaningful teaching. The school and the teacher must understand the educational process in its context and condition, in which pedagogical strategies must be influenced and connected from the understanding of reality. The teacher needs to be sensitized, to be human, creative, mediator, and more than ever he needs to use scientific knowledge in his practice, and the school needs to ensure interdisciplinary and transdisciplinary teaching, strengthening and accompanying technology and innovation in the educational process, presenting itself as dynamic, reflective to enable the construction of knowledge in which everyone teaches and learns. Thus, education is transformative and requires us to be transforming agents, a reflective subject" (P15).

In the teaching-learning process, it is necessary to boost student engagement, as well as to contextualize teaching methodologies in the face of social practices belonging to digital culture, that is, to integrate digital technologies and resources for the development and creation of active methodologies (Bacich; Moran, 2018). These new demands instigate, according to Moran (2012), the challenge of moving towards a quality education by aggregating all dimensions of the human being, based on the integration of all dimensions – sensory, emotional, ethical and technological – in the educational space, which more than ever requires changes and evolution for the work towards the advances of pedagogical practices.

This look at a new society, for Moran (2012), aims at new ways and paths to learn, which implies contemplating the complex and comprehensive educational space, which involves citizens, organizations, as well as serious, coherent and innovative public and

institutional policies. At the same time, it is necessary to improve access to digital networks, in addition to transforming the school into a living, stimulating and pleasant space, with better paid and prepared teachers, with a curriculum more connected to the lives of students and with more participatory methodologies, which make students active in the teaching-learning process, learning in groups collaboratively and individually, involving different rhythms, tempos and forms. For this, teachers need to find ways for a transformative pedagogical practice.

## **DISCUSSION**

### **ACTIVE METHODOLOGIES COMBINED WITH DIGITAL TECHNOLOGIES FOR THE ADVANCEMENT OF TEACHER TRAINING**

Educational innovation and the arrival of differentiated practices reinforce the profile of the new contemporary teaching culture, which is concerned with the meaningful learning of students (Debald, 2020). Innovating in the educational field, according to Debald (2020, p. 68), "[...] it means migrating from the conception of teaching to learning, diverting the focus from the teacher and redimensioning it to the student, who in turn, assumes co-responsibility for his learning", sustained by the student's learning to learn, with the development of communication skills, student protagonism and individual autonomy. In this transformation of the educational space, active learning methodologies, which are the new educational proposals, find space and are strengthened by motivating the problematization and dynamic participation of knowledge production (Debald, 2020).

We emphasize that active methodologies have been gaining strength in the last decade, despite having existed since the 1930s, a period in which they were found as foundations of active pedagogies, whose landmark in Brazil was the New School, which contemplated the experiences and education of John Dewey (1958), together with *the Manifesto of the pioneers of the New School* (1944), which presupposed a pedagogical change. In this sense, active pedagogies required changes from the physical structure of the school to the ways of relating, being, and acting of students in their pedagogical space (Oliveira, 2020).

According to Moran (2019), active methodologies are not a new topic; Dewey (1950), Rogers (1973), Freinet (1975), Brunner (1978), Ausubel (1980), Freire (1996), Vygotsky (1998) and Piaget (2006) described its importance for the learning and evolution of students, showing how each child and adult learns actively and differently, based on the

context in which they find themselves, what is relevant and significant for the development and competence they present (Moran, 2019).

Regarding the concept of pedagogical strategies, Bacich and Moran (2018) state that all learning is active to some degree, because it requires from the learner and the teacher different forms of internal and external movement, action, motivation, selection, interpretation, comparison, as well as evaluation and application. For Oliveira (2020), what changes in the student, the teacher, and the relationship of knowledge based on active methodologies is the school, as the environment needs to be interesting, pleasant, instigating collaboration, creation, and interaction. In this look at the pedagogical space, we observe the changes in the ways of being, acting and relating. The roles are changed, in a dynamism with an emphasis on the student's process, since the teacher is no longer the holder of all knowledge, but a mediator, an experienced researcher who is in this space to guide the students in their discovery (Oliveira, 2020).

The acceptance of active methodologies that embrace technological resources requires the redesign of physical spaces, so that they become more attractive, flexible and connected, as well as digital spaces, so that they use the full potential of collaboration and personalization through mobile technologies and social networks, to diversify and change the students' routine. For this, it is necessary to mix technique, strategy, resources and applications; planning active methodologies in isolation is not enough, as they make sense in a context of systemic and structured change, contributing to redesigning the ways of teaching and learning, the spaces, the assessment, the curriculum, the certification, by revealing their true potential (Moran, 2019).

The active methodologies are, for Bacich and Moran (2018, p. 4), "[...] teaching strategies focused on the effective participation of students in the construction of the learning process, in a flexible, interconnected and hybrid way"; Thus, they express themselves through hybrid teaching models, in a connected and digital space. The emphasis on the word "active" is associated with reflective learning, based on processes of constant research, questioning, experimentation, with the classroom becoming a privileged space for co-creation, for the search for entrepreneurial solutions, considering concrete situations, challenges, games, experiences, experiences, problematizations, projects, and using resources such as simple or sophisticated materials, basic or advanced technologies (Bacich; Moran, 2018).

This new methodological proposal values technological resources, with greater ease in the learning process due to the student's connectivity, and requires teachers to have skills to explore them in the context of knowledge construction. It is up to the teacher to break with traditional teaching paradigms and methods and change his attitude towards learning, since the process aims at autonomy and the formation of active students.

We observe that higher education is at a propitious moment for the promotion of these transformations, as innovation in education is not restricted to repeating innovative formulas, and the proposal of the active methodology is a contribution to the training of a professional with mastery of knowledge, the practice of know-how and know-how (Debald, 2020). The rupture of the traditional and simplified paradigm, for Behrens (2013), implies instigating the student to seek knowledge, to take pleasure in knowing, learning to think and, in this process of knowledge production, to dare, create and reflect. By combining learning to know with learning to do, the teacher needs to overcome in his pedagogical practice the theory-practice dichotomy, which was marked throughout the twentieth century by the traditional paradigm. However, through the new demands and educational realities, theory and practice can go together, as pedagogical practice must go beyond the view that the student is product and object, emphasizing his transformation into a subject and producer of his knowledge (Behrens, 2013).

Teaching and learning processes are increasingly tending towards the use of active methodologies due to the amount of information available today, with digital media and the implementation of alternative pedagogies. According to Bacich and Moran (2018, p. 28), "learning-oriented methodologies consist of a series of techniques, procedures, and processes used by teachers during classes, in order to assist in student learning". They are called active because they are related to the realization of pedagogical practices to involve students, as well as to the engagement of these students in practical activities, so that they become protagonists of their learning (Bacich; Moran, 2018).

About teacher mediation and student protagonism, we highlight the transformation of study methods, starting from a traditional model to an active model, which demands motivating teacher mediation for the development of student autonomy and protagonism. For this, it is necessary to direct the context according to the student's profile, to have a personalization of learning, with the strengthening of motivation and student protagonism. By directing towards the structuring of a more interactive and practical educational model, it is possible to obtain a greater depth in knowledge, making learning more meaningful, as its

development will be based on real contexts and close to the student's personal experience (Micheletto, 2018).

The actions involved in mediation reinforce the existence of a predefined formula for this, while highlighting the importance of the mediator reflecting on his pedagogical practice and his teaching action. Another important aspect of the teacher's role in terms of personalizing teaching is that its exposure occurs less frequently, as other forms of learning gain space, such as projects, research, experiments, debates, productions and various co-creations. In this scenario, it is the teacher's role to be a mediator and guide the student in his choices, helping him to get closer to his interests and objectives, as well as to identify along the way the human resources and materials necessary to achieve the objectives, thus developing and encouraging collaborative work (Thadei, 2018).

Active methodologies, for Moran (2019, p. 87), "[...] presuppose a cultural change in everyone's view of the school – managers, teachers, employees, students, families". It is not simple to change already consolidated mental paradigms, with a traditional, fragmented and reductionist view, leaving the central position of teacher for the function of mediator of the teaching-learning process. This requires a large investment in training, experimentation, and more time for preparation and planning of activities.

Teaching in innovative models and methodologies, according to Valente (2015), continues to be a challenge for managers, because in undergraduate courses and universities, in general, professionals capable of working in such different contexts are not trained. This experience in innovative conception proposes the use of active methodologies combined with digital technologies in the teaching-learning process and requires teachers capable of giving up and stripping themselves of traditional conceptions, launching themselves deeply in search of resolutions appropriate to the reality of their times by resignifying their professional trajectory. These changes begin with teacher training based on new teaching strategies and innovative pedagogical practices with the use of active methodologies combined with digital technologies.

## CONCLUSION

When entering the educational universe, we observe that teacher training needs to be based on creative, critical and reflective activity, as well as shared in the use of media and technologies as a language and instrument of culture, the structure of thought, methodologies, curriculum and pedagogical relations.

In the search for a new reality, it is up to teachers to articulate different elements: the face-to-face space, the digital space, the interactions between students and the relationships between students and teachers, expanding the limits of the educational environment. In the face of so many challenges and possibilities, it is essential to promote a transformation in teaching practice, allowing educators and students to collaborate in a joint, dynamic and motivating learning process, based on protagonism and creation. It is urgent to invest in teacher training with a focus on innovative practices that integrate active methodologies and digital technologies critically and consciously.

In this learning architecture, the educational reality demonstrates the need for profound changes regarding the conception of new pedagogical practices, making it essential to welcome a broader and more global vision in the use of active methodologies combined with digital technologies for the construction of practices that highlight the student's protagonism for the formation of a citizen culture.

It was observed with the research the need to take advantage of the pedagogical potential in new practices based on the use of active methodologies allied to digital technologies. This new methodological proposal values meaningful learning, in which there is greater ease in the teaching-learning process due to the student's connectivity, and requires teachers to have skills to explore them in the context of knowledge construction.

The study evidenced the emergence of new teaching demands in an increasingly technological context and reinforces the need to reflect on the importance of digital technologies in society and especially in education for the development of pedagogical practices based on new strategies for transformative education.

It was verified with the notes cited in the course of the study that access to the most diverse technological resources makes the construction of knowledge occur in a broad and diversified way. However, the use of active methodologies combined with digital technologies transform the educational space, whether through networks or connections, so that interactions can take place, based on the exchange and opening for the transformation of teaching practice to occur.

In this path of investigation and study about active methodologies combined with digital technologies, it was possible to be clear about the need for teacher training based on new strategies that consolidate a transformative education.



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