INTERNATIONAL SEVEN JOURNAL OF MULTIDISCIPLINARY
ISSN: 2764-9547

TEACHER TRAINING IN THE FACE OF TECHNOLOGIES: THE PODCAST AS A CLASSROOM RESOURCE

https://doi.org/ 10.56238/isevmjv4n3-005

Receipt of originals: 08/04/2025 **Acceptance for publication:** 08/05/2025

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ABSTRACT

This article deals with the training of the teaching professional in the face of new technologies, and the Podcast as a resource in the classroom, because technological tools, especially the computer, are fundamental to the development of teacher autonomy, especially in public schools, but many of them do not master the handling of this technology. In this context, it is perceived that it is necessary to have the professional training of teachers in the face of technologies and it is an issue of extreme relevance that must be widely discussed and made feasible so that all educators can insert themselves in the age of information technology by performing a dual role, the mediator and the conductor of learning. Because learning does not happen in isolation, it is an interaction between those involved. And to interact, knowledge is needed.

Keywords: Technology. Education. Training.

INTRODUCTION

The world is increasingly interactive, the various media reducing distances between beings, experiencing important changes in all sectors of society. In the educational context, new resources emerge that are not always used by educators, who are not prepared for the growing number of launches of virtual programs, which determines the school as an environment created for learning, rich in resources, enabling the student to build knowledge in a stylistic individualization of learning.

The magnitude and speed of these transformations are demanding new ways of learning and thinking about education, which include quick decisions about new facts that cannot rely on previously established rules.

Informatics is being inserted in education due to the need to cross the boundaries of conventional education, because everything that has been modernized in education until the advent of informatics has become conventional in the face of this new pedagogical form of education. In this way, it provides schools with a renewal of working on the syllabus, providing the student with efficiency in the construction of knowledge, converting the class into a real space for interaction, exchange of results and adapting the data to the student's reality.

It is the teacher who uses his own experiments to think sincerely about his own teaching practice, and in the action-reflection-action, he generates his personal and professional growth. This constitutes idealizing that knowledge is not exclusively communicated in classes or kept in books, it is built on everyday knowledge and through a large number of elements. In this sense, it is urgent that the teacher masters the various technologies and presents a very real knowledge of his educational potential for himself and also for the students.

The challenge, therefore, is not only to introduce new technologies with the set of transformations that this implies, but also to ensure that the transformations are sources of opportunities. Students, especially from public schools, cannot be left on the margins of technological knowledge as a consequence of the lack of training of educators,

Analyzing the consequences that arise when teachers are faced with professional impositions, for which they have not had adequate training, including the use of technologies as pedagogical tools, it is understood why there is still resistance to the use of technology as an ally in education. It is necessary to promote training courses concomitant with awareness, so that the necessary use really occurs so that all

this range of information that involves pedagogical practice combined with technology can be put into practice.

It cannot be denied that technological tools, especially the computer, are fundamental to the development of teacher autonomy, however many of them do not master the handling of this new technology.

INFORMATICS IN EDUCATION

Informatics in education begins with the insertion of computational tools in the teaching and learning process. However, the use of these tools can be both to continue transmitting information to the student, reinforcing the instructional process, and to create conditions for the student to build their own knowledge through the use of learning environments.

According to Petitto (2003), one of the possible ways to develop school activities in a way that favors the construction of knowledge by students in an active way is through the realization of work projects. These projects propose actions that aim to work on content previously established or not in the school curriculum, but that are relevant to students. The development of these projects can be enriched with the use of computer resources that, when introduced as a pedagogical tool, contribute to the students, in addition to learning how to use it, to carry out various types of research, test the resources available on the computer and propose solutions in the most varied ways.

According to Valente (2005), there are two educational approaches regarding the way of teaching: one would be the transmission of information, the other would be the construction of a means for students to interact with information and build their knowledge.

According to this author:

> Teaching is no longer the act of transmitting information and becomes the act of creating learning environments so that the student can interact with a variety of situations and problems, helping him in his interpretation so that he can build new knowledge. (2005, p. 24).

In view of the innovations required by the growth of technology and the need of human beings to be included in the competitive world, it is important that teachers can reflect on this new reality, rethink their practice and build new forms of action that allow

them not only to deal with this new reality, but also to build it, innovating and being a partner of the student at the time of growth.

For Faustini (2001, p.265), the teacher, when acting in electronic contexts, ceases to be a provider of information or an organizer of activities and becomes a companion of the student, favoring autonomy and helping the student to walk on his own.

For this to happen, the teacher has to go to the computer lab to teach his class, encourage the student, and not let a third person do it for him. If the teacher is not prepared, it is important that he asks for help, but do not stay apart from the learning process, but together with the students be part of it.

Gouvêa, when referring to the subject, says that:

> The teacher will be more important than ever, because he needs to appropriate this technology and introduce it in the classroom, in his day-to-day life, in the same way that a teacher, who one day, introduced the first book in a school and had to start dealing differently with knowledge – without leaving other communication technologies aside. We will continue to teach and learn by word, by gesture, by emotion, by affectivity, by the texts read and written, by television, but now also by the computer, by information in real time, by the layered screen, in windows that are deepening before our eyes. (1999, p.17),

However, for the teacher to appropriate this technology, according to Fróes (2004, p.5) he must "mobilize the school's teaching staff to prepare for the use of the Computer Laboratory in their daily teaching-learning practice". It is not, therefore, a matter of making the teacher a specialist in Informatics, but of creating conditions for him to appropriate, within the process of building his competence, the gradual use of these computerized resources: only such an appropriation of the use of technology by educators will be able to generate new possibilities for its educational use.

In the same direction, Faustini (2001, p.265) when discussing the responsibility that the teacher has for the development of student autonomy in digital contexts, warns that it is not enough for the teacher to know how to guide the work with new technologies, it is also necessary to be committed to a new educational proposal that the *web* requires him when working with electronic resources in the classroom. Although web resources, most of the time, motivate the student to "walk by himself", it is necessary to warn teachers that this autonomy also depends on the directions that the teacher will give to the tasks that students have to perform.

If one of the objectives of the use of the computer in teaching is to be a transforming agent, the teacher must be trained to assume the role of facilitator of the construction of knowledge by the student and not a mere transmitter of information. But for this to be effective, the teacher must be constantly encouraged to modify his pedagogical action. This is where the figure of the IT coordinator comes in, who is constantly suggesting, encouraging and mobilizing the teacher. It is not enough to have an equipped laboratory and software available to the teacher; There needs to be a facilitator who manages the pedagogical process. This reality is far from most public schools in the country.

THE PROFESSIONAL TRAINING OF TEACHERS IN THE FACE OF NEW TECHNOLOGIES

There is no way to think about teacher training without considering the presence of technologies in schools and in various social and cultural situations, or to consider the controversy of their insertion and use as aids to teaching and learning procedures, disregarding the need to have professional training for this occupation. The influence of these instruments is manifest in the ways of sprouting and reflecting knowledge, in the social organization of groups of individuals and in the dissemination and storage of information.

As Valente reports:

> The technical facilities offered by computers make it possible to explore an unlimited range of pedagogical actions, allowing a wide diversity of activities that teachers and students can carry out. On the other hand, this wide range of activities may or may not be contributing to the process of knowledge construction. The student may be doing fantastic things, but the knowledge used in these activities may be the same as that required in another, less spectacular activity. (2005, p.24)

It is also necessary to meditate on the probabilities and challenges that the use of new technologies, which systematically impose on teacher training and professional qualification programs.

Developed in the last two decades, based on the advances achieved in the areas of electronics, telecommunication and information technology, including the computer, cable and satellite television, the CD-ROM, tele-video conferences and the use of technologies have reached educational institutions. They influenced the quality of the

work at school and, on the other hand, made it possible to improve learning.

Studies have shown the growing need to review the pedagogical project of educational institutions, for the critical introduction of new technologies in school management, which means recognizing that the manager has, in his experience outside the school context, access to such simplified ways of obtaining and rationalizing knowledge, consolidating the thought that the inclusion of multiple domains of reality in their curricular dynamics will contribute to the formation of the of the efficient and effective manager.

Pocho (2010) clarifies that just as technology for the use of man expands his capacities, its presence in the classroom broadens his horizons and his reach towards reality. In order for students to interact pedagogically with it, in a critical and creative way – which will contribute to the formation of more active citizens in the technological society in which we live, it is necessary for teachers to know and know how to use the available technologies educationally.

The use of new technologies is in the human interest for the sake of the emergence of an autonomous and creative society, a dynamic society within the innovative and increasingly demanding parameters of modern society. It is necessary, therefore, to think of a pedagogical plan focused on the presence of computer models, models of technological development appreciated in a more comprehensive and more critical way.

The inclusion of new technologies in the pedagogical projects of the training of school teachers will contemplate possibilities for the emergence of new interactive processes and reflection on the academic routine. This will lead the institution to rationalize financial resources for this purpose. Even considering an educational system that values human aspects, there is no doubt that, according to Carvalho:

> It is the availability of an educated workforce that is the necessary, although not sufficient, condition to enable productive strategies centered on the learning and innovation capacity of companies that bring together conditions for the desired economic progress (2004, p.52).

From the 1970s onwards, the international economy in crisis sought to ensure ways to guarantee increased productivity, exploring new means of production and labor administration. The replacement of the Fordist and Taylorist model of production by the

Toyotist model implied the development of new technologies and, consequently, contributed to the renewal of products destined for the market.

The new production model led to an intense technological and organizational reorganization with coverage in educational training (CARVALHO, 2004).

> The importance of technological training as a competitive factor, as well as the innovative action of firms to understand economic dynamics, have been reflected in the growth of interest in investigating the nature of technological activity, at the level of the firm and national economic spaces (CARVALHO, 2004, p. 97).

Thus, it is clear that the appropriation of new technologies through learning is the essential condition for the formation of the professional appropriate to the new reality of management in education. This learning is done by establishing an environment capable of overcoming the barriers that prevent learning from taking place in a context that favors criticism, reflection and transformation through education, aiming at the fullness of the human being (FREIRE, 2002).

The new demands made by the new paradigm of capitalist production require a deeper look at the practice of the manager in the school as a subject of the management process and dominator of the use of new technologies. The degree of qualification and requalification required by the acceleration of technical progress, despite so many other faces, does not depend on technological, social and educational contexts, since the change in qualification requirements directly affects the framework of occupations.

In this way, the transformation of the school institution is noted. As Saviani tells us:

> It seems, therefore, that we are reaching the threshold of the consummation of the process of constitution of the school as the main dominant and generalized form of education... The unitary school that develops the maximum potentialities of individuals, leading them to the full blossoming of their spiritual-intellectual faculties (2004, p. 164).

Since the beginning of computer science in school, education has lived with the difficulty of adapting to the universe of resources that technology can offer. In view of technological evolution, Informatics has become part of the school as a teaching and learning tool. In this context, everyone is relearning to know, to communicate, to teach and to learn. Educators who want to keep up with the advances of the world will have to

develop new skills and competencies that will build the foundations for the new knowledge society.

Emphasizing the new role of the educator in the face of innovations, Gadotti (2006) highlights the revolution that new technologies represent for educators, education and society, as well as the transformations that can and should occur: It is about putting educational management at the service of a community that will shape the universe of knowledge it needs, according to the moments and the concrete dynamics of its development.

THE PODCAST AS A CLASSROOM RESOURCE

The word 'Podcast' originated from the combination of two terms: Ipod, an electronic device of the Apple Inc. brand used to listen to music and the term *Broadcasting,* which is used to refer to TV or radio broadcasts. The union of both forms the exact meaning of what a Podcast is: a sound or video file published on the internet with transmission via RSS4 feed and that can be listened to on any device that supports mp3 and mp4 media, such as: cell phones, computers, Ipods and car stereos. There is the option of listening to it online, on platforms such as Spotify and Itunes or downloading it to an electronic device, among those mentioned above (Crestani, et.al. 2019).

Technology, in the light of various means to solve issues or help solve them, concretizes the meaning of its etymology and its social function. Every tool available is a distant technology. When thinking about education, the pencil, the pen, the eraser, the book, the siren, each one fulfilled, and still fulfills, their mission at a certain time. Several solutions are available and thus we are taking advantage of these unprecedented technologies, increasingly sophisticated, more interactive.

The technological advancement employed in electronic equipment adds a new perception about technology, which can also be identified as new technologies in the information society. Education sows strategies to fulfill its function of forming, educating, preparing and instructing for life. By delimiting the function of writing in education, in particular, Lévy (2011) corroborates Vygotsky (1993) when he says that "all people are capable of learning, but it is necessary that we adapt our teaching practice to the needs of individuals and the context in which they are inserted" (VYGOTSKY, 1993, p. 17).

When one considers that education is going through a transitory process, it is understood that a finished condition for its strategies cannot end. This same thought is presented by Libâneo (1994), indicating that "didactics is characterized as a mediation between the theoretical-scientific bases of school education and teaching practice. It operates as a bridge between the "what" and the "how" of the school pedagogical process" (LIBÂNIO, 1994, p. 28).

In this sense, walking through the theories of learning and its currents means noting that teaching methods also evolve, consolidating their effectiveness over generations, but also need modernization and updating. In view of the paradigms of change, Libâneo (1994) assures that: "It is the actions of the teacher by which the teaching activities are organized and of the students to achieve the objectives of the teaching work in relation to a specific content" (1994, p. 161).

It is through the safe practice of the auxiliary means of teaching and full knowledge of their mechanisms that the concretion of teaching is achieved. This practice is essentially expected by the teacher. According to Libâneo (1994), without this dynamic, dialoguing with the new generations will be a little concrete expression.

as a form of dialogue with the new generations, several and diversified technological resources are available, such as the Podcast, which is established between students, entrepreneurs and everyone who needs a live contact, where participants can interact.

The subjects covered vary from tutorials, such as audios about culinary recipes or instructions on the use of certain equipment/machines and debates or opinions about some fact. They are usually presented by more than one person, with the aim of presenting the content without making it dull and exposing different opinions. (CRESTANI, 2019). The one who produces the Podcast is called the *podcaster* and the main presenter, who will conduct the interview as well as the subjects covered is called *the host,* who is responsible for ensuring that the subject does not deviate from the agenda. In addition, the participants of an episode can be fixed or invited, then called *casting.* The guest known as "counterpoint" or "ladder" is responsible for presenting opinions contrary to those mentioned, so that the program is more attractive to the public. As Leo Lopes argues in the book 'Brazilian Podcasts': "it is quite common for characters with striking characteristics to be inserted, such as 'the expert', the 'naïve'

and 'the trickster', because given the profile of the public, they are the most listened to" (2015, p.57).

Studies on the incorporation of Podcasts in the category of learning tools, as well as video lessons or recordings made in the classroom, have been developing in recent years. Sites such as Central Brasileira de Notícias (CBN), a Brazilian radio network belonging to the Globo Radio System, make available in podcasts all its commentators and the main interviews of its programs**.** In addition, other news programs such as UOL and Folha Vitória Newspaper have content in this format (CRESTANI, 2019). Because these are audio files that can be downloaded and consumed at any time, the reach of information tends to be broader and easier to access and enjoy by students. According to an article published by the blog *Moodle livre,* by the specialist in tools and solutions applied to education, Marcelo Claro,

> We are experiencing online education situations. With new media inserted in the educational routine, the possibility of a more interactive education arises, in which the conception of *an anytime/anywhere* teaching is increasingly present, making the student really master of his own time and space (CLARO, Marcelo, 2011).

Crestani, et.al. (2019), reports that the use of Podcasts based on the analysis of Gardner's theory makes it possible to notice that by putting multiple intelligences into practice, the individual opens up to receive the content in a broader way, because according to Eugênio Paccelli Aguiar Freire, in his article called *Podcast: new voices in educational dialogue,* "To know different voices is to expand the knowledge of the other and, therefore, of the world around in the addition of their reading, inside and outside school contexts" (FREIRE, 2013, p.21). In other words, when consuming the podcast, the listener will not only be based on the names suggested by the teacher or didactic material on which he or she is based, but also on experts who do not appear in the books or are not held in high regard by the media.

The essence of the interaction between the machine and its educational function is what brings significance to this theory. However, for training strategies to be achieved, it is necessary to explore the science of education in a consolidated way. In this field, didactics fulfills its role by developing the appropriate strategies and activating the motivations that will open up the cognitive capacities.

Gascón and Labra (2008), when addressing general didactics, summarize the strategies and dimensions to be achieved:

- Physical and psychomotor strategies: affect the body and its development, refer more to physiology.
- Cognitive or intellectual strategies: refers to attention, student participation through the communication of intentions, interpretation, reinforcement activity, and feedback.
- Social strategies: production of good human relations being a first condition. The second condition involves the participation of all those involved: friendly treatment, a sense of belonging, sharing of objectives and experiencing satisfaction in achieving individual and collective successes.
- Emotional strategies: they awaken enthusiasm, satisfaction and well-being through the satisfaction of performing the activities that are proposed, they allow praise to establish good feeling in the parts of the process.
- Strategies that affect personality: these are based on the maintenance and development of self-esteem. Self-esteem brings a positive concept, the evaluation that each one makes of their self-perception, how they value the way they see themselves, relates to acceptance or non-acceptance.

Still corroborating the scope of the results proposed for didactics, Gascón and Labra (2008) conclude:

> We noticed that strategies that work well one day with some students with others may fail, with a group or individual students. But there is a style that never fails, in the long run: valuing people, appreciating them, trusting them, sharing with them a passion for the subjects they teach. All of which is sincerely the cause for every student. It represents the style of sharing and collaboration, accompanying and stimulating personal growth with the most appropriate techniques and strategies (GASCÓN and LABRA, 2008, p.191).

Strategies are not finished in themselves, intervening in motivations is a requirement to succeed in didactic strategies. Individual motivations in the knowledge society are linked to concepts of networks, hypertexts, autonomy, amplitude, collaboration. The reconstruction of this paradigm opens up to new values and new patterns of behavior to be understood as natural, dynamic and as part of a new structure to be planned by the educational sciences.

A new class of intervention proposals is related to a set of technologies, between those considered traditional and those considered new, a new class of strategies contemplates the balance of this transition.

FINAL CONSIDERATIONS

Today there is no doubt that information technology is an important tool in education, an auxiliary instrument in pedagogical action. First, because of the context in which we live, where computers are increasingly present in our daily lives, giving rise to the need for more people to master it. Second, due to the high diversity of our country, talking about education, especially informatics applied to education, is a utopia for the majority of the population, which survives with difficulties, making the computer a "distant object", out of reality, almost mystical.

It is understood that the computer should be used as a catalyst for a change in the educational paradigm And in this scenario, the Podcast is an ally in education, because in addition to presenting attractive resources for students, it enables a quality, attractive and interactive activity. Informatics in education is moving towards becoming the storage center for all the information that comes to the public. Technology has already been installed in the classroom, what remains is to make teaching more pleasant, efficient, with access to all social groups. And it is in school that representativeness is evident.

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