

THE USE OF ASSISTIVE TECHNOLOGY IN RESOURCE ROOMS FOR STUDENTS WITH DISABILITIES: POSSIBILITIES AND LIMITS

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ABSTRACT: This article starts from the conceptions of education that contemplates the real needs of students with disabilities, and analysis of the practices of teachers of the Multifunctional Resource Room of the municipal school network. Hence, a review in the literature is presented, pointing out the main currents of traditional thought to current trends in education. Allied to these studies, concepts and results of research on assistive technology are pointed out. And, finally, challenges are raised that have been overcome or to be achieved by Special Education teachers in an attempt to bring greater autonomy to students with intellectual disabilities.

Keywords: Conceptions of education; Intellectual disability; Assistive technology and autonomy.

INTRODUCTION

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Inclusive Education comes in a trajectory of search for social integration and elimination of barriers that may interfere in the cognitive development of people. In this sense, the referent work that has as title: The use of Assistive Technology to students with Intellectual Disabilities: Possibilities and limits. The theme arose from the need to understand the use of technology with meaningful activities, and that contribute to the development of students with intellectual disabilities, served in the resource rooms. Combining these sabers, the constructivist perspective defended by renowned authors in the educational field.

The general objective is to analyze practices with AT in the face of the precepts that involve the Inclusive Education of students with disabilities. And, its specific objectives are: To verify the possible obstacles and/or possibilities with the use of technologies in resource rooms of the public school system; To identify whether the practices applied to students with disabilities in schools with resource rooms are in a context of social inclusion and to identify successful constructivist practices with the use of assistive technologies.

From this perception, it was taken as a research problem to try to understand if for many teachers the AT is still a resource that they have difficulties to use with students and if these

professionals know in fact what is an Assistive Technology and based on which conceptions of education are performing their activities.

1 CONCEPTIONS ABOUT EDUCATION

1.1 Thinking about traditional education

In view of the historical studies on concepts and functions on education, it is perceived that some theories consider that this process occurs spontaneously; others contradict that social interaction is necessary. And, the systems or professionals of education adhere to these conceptions, which emerge over time, so that it comes to meet full formation of the individual to act in the society in which he lives.

According to Comenius, Czech philosopher of the century. XVII, considered the Father of modern didactics, proposed a break with the model of school practiced at the time, and taught by the Catholic Church, and aimed only at the elite, through abstract studies. He was adept at an education that catered to all social classes:

He advocated a school model that should teach everything to everyone, including the mentally handicapped and girls, at the time excluded from education. He advocated unfettered access to writing, reading, and calculation so that everyone could read the Bible and trade." (NEW SCHOOL, 2009, P.33)

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In this sense, their positions are close to the most current proposals, of universalization of teaching with a view to the formation of the student in its fullness in which the contents must be articulated to life, in order to compose a more just society.

As for Durkheim, sociologist and professor born in 1858 in France and died in 1917. He taught pedagogy and social sciences at the Faculty of Letters of Bordeaux, from 1887 to 1902, According to New School (2009), his conceptions were that people develop their personality, from the norms of moral conduct, and external coexistence, imposed by the environment. Thus, it is worth noting that: "Man, more than the shaper of society, is a product of it," Durkheim wrote. (NEW SCHOOL, 2020).

In this sense, the role of the teacher would be that of transmitter of knowledge, and the students of mere receivers of pre-established concepts and ideas. All that remains is to internalize them.

Making comments, Professor Demerval Saviani, says that this thought of Durkheim, is in line with the elaboration, adoption and socialization of the National Curricular Parameters (PCNs), because there is an expectation of the government to form a certain type of subjects

within the social standards. "Resumes are suggested for everyone. Now, it's up to schools to take those cues and shape them for students," he explains. (NEW SCHOOL, 2020) .

In the opposite direction to the traditional school model that was centered on the reproduction of immutable scientific contents and truths, currents of valorization of the search for knowledge by the students themselves in a practical way begin to emerge. And, one of the proponents of this thought was the philosopher John Dewey (1859–1952). American pedagogue adherent of the principles of what was called at the time the New School.

According to (Teixeira, 1978), Dewey criticizes the traditional school for being organized with the objective of practicing skills mechanically, without leading the individual to think. His proposal is that learning should be a process of reconstructing reflective experiences of real life, through manual and creative activities.

Thus, the learning process should be directed to the interest of the student, in reframing the object of study, is to inquire into the whys of things, because for him the world is in constant movement. Then, each student must by experiment, come to his own conclusions.

2 LEARNING DEVELOPMENT PROCESSES AND CONSTRUCTIVISM

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Allied to the conceptions about education, it becomes relevant to bring up some theories about the process of knowledge acquisition, and that contribute to the teacher's planning. Through necessary interventions, especially those with learning difficulties.

At first, we have the points of the main doctrines of the educational field and psychology brought by SEBER (1995). The innate-maturationist position. It is based on a rationalist doctrine, in which the subject is already born with knowledge and matures as he grows physically and mentally.

In this process there is a minimum of interference from the teacher, leaving the student in direct contact with the physical environment so that his progress occurs spontaneously. The questioning by many scholars to this method, is the lack of direction of activities and absence of conflicts with the object of study that leads it to reflection.

In opposition to this movement, the empiricist-associationist position emerges. In it, learning takes place from the outside, within. That is, the external environment contributes to the effectiveness of the instructions received by the child, through the technique of conditioning and reinforcement Aristotle (384-322 BC) says:

[...] Although people are born with the ability to learn, they need lifelong experiences for them to develop. The source of knowledge is the information captured from the

external environment by the senses. Ideas like this have boosted empiricism, a current favorable to teaching by imitation - in school, the proposed activities are those that facilitate memorization, such as repetition and copying. (NEW SCHOOL, 2020).

It is the traditional pedagogy of learning by memorization. Without the child asking questions and reserving the assimilation and response according to the instructions given.

However, the principles of valuing the construction of knowledge with constructivist ideals begin to emerge, having as one of the precursors, the Swiss biologist Jean Piaget (1896-1930). Although he was not a pedagogue, his studies brought great contribution to the educational area, by pointing out how the stages of the intellectual development of the human being take place, since his birth. And, from this, the possible skills that they present throughout life.

In general, the scholar points out the four cognitive stages of development described by the New School (2009). The first is the Motor Sensory (0-2 years) in which the child practically acquires the ability to manage his basic reflexes, such as the perception of himself and objects around him.

The second is the Preoperative stage (2-7 years), which is characterized by greater mastery of language and the ability to put oneself in the place of the other, but still maintains the phase of egocentrism. 3342

After this age comes the phase of Concrete Operations (7-12 years). In it, the child begins to have the notion of reversibility of actions; Mental logic arises and the child can already master concepts of time and numbers.

Finally, give the stage of Formal Operations (From the age of 12). The adolescent begins to have logical reasoning and mastery of abstract concepts.

Such stages, in Piaget's perspective, take place in a process of intellectual maturation. And, the role of the teacher would be that of mediator. Providing opportunities for activities that lead the subject to imbalance and cognitive balance when faced with the problem-situation. Thus, when overcoming such difficulties, learning happens.

And this learning is constructed by the subject and not simply given. In this way it is worth emphasizing: "Constructivism is not a practice or method, it is not a teaching technique (...) In Piaget, the student is an active cultural subject whose action has a double dimension: assimilating and accommodating. The accommodating dimension produces transformations in the objective world, while the accommodating dimension produces transformations in itself, in the subjective world. (BECKER, 2001, P. 73).

Despite being a conception that aggregates many adherents and that values the individual development of the person, its practical applicability requires responsibility because the path of development is not egalitarian for all people. But that is a reference of interest to teachers and psychologists in educational practices.

Another who advocated a constructivist practice in pedagogical work was the Russian psychologist Lev Vygotsky (1896-1934). He highlighted the role of individuals' social relations in their cultural formation.

In his theories for what brings New School (2009), learning takes place in a dialectical relationship between the being and the social environment, in which he emphasizes the importance of this interaction to acquire experience. For him, learning is not subordinated to the development of children's psychic structures and that it is important to pass on content that the student does not yet know.

In other words, it is the external conditions that will provide growth to individuals. And the teaching must start from the previous knowledge of the student, in order to make them attractive. Thus, the following statements on the subject are appropriate:

Teaching should anticipate what the student does not yet know nor is able to learn on his own. Because in the relationship between learning and development, the former comes first. It is the concept of ZDP - Zone of Proximal Development. That would be the distance between a child's actual development and what he has the potential to learn. (NEW SCHOOL, 2009, P.94)

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So, according to Vygotsky, unlike Piaget, he says there is first learning and then development. And, it also brings perceptions that have been incorporated into the didactics of the educational field nowadays, when it highlights: issues of interactions between colleagues for work accomplishments, and that the teacher makes a survey of what students already know about certain subjects.

3 METHODOLOGICAL FOUNDATIONS

The aforementioned research brings a qualitative approach, which according to Minayo (1995), presupposes a knowledge of the action in a broader way, contemplating the various representations, referring to a certain theme.

Our field of investigation was in a school of the Municipal Education Network of Jaboatão dos Guararapes -Pernambuco. Located in the neighborhood of Socorro.

The subjects of our research were: teachers of the school that offers care in the Specialized Educational Service Room (AAEE). And, data collection consisted of semi-structured interviews and documentary analysis of the MEC on the role of the resource room.

The semi-structured interview according to Ludke and André (1986), is an instrument that provides a relationship without rigid imposition in the order of the questions, within a friendly conversation and without hierarchy between researcher and interviewee. That is, the interview provides a better approximation between the researcher and the interviewee, so that the interviewee feels comfortable to answer what is asked, without there being fears or the need for a defined sequence of the questions presented.

In the first stage of the data collection process, we conducted the interviews with a script in Appendix A, containing 10 questions common to all teachers.

These interviews were conducted over a period of two weeks, as we adjusted to the current dynamics of virtual interviews.

In the second stage, it covered the content analysis that occurred through categorization of the researched material. In this sense, Puglisa and Franco (2005), define the categorization as in Appendix B, says that it is an operation of classification of constitutive elements of a set, by differentiation followed by a regrouping based on analogies from defined criteria.

CONSIDERATIONS

In this research work, we realized that although there are laws that establish the structure, functioning and attributions of the professionals who serve Special Education Students in order to reduce barriers that prevent the development of people with disabilities, there is still a lack of public policies that meet all teaching units and their particularities. For, the school has a fundamental role in the insertion of the subject in the social world with autonomy.

And although many teachers have continued training in their work, many still confuse Information Technology (IT) with Assistive Technology that goes beyond the use of state-of-the-art instruments. However, the teachers and family members of the students agree that the technological resources bring greater interest in learning and that the interactive table of assistive communication has been reflected in a better interaction between the student who has difficulty with speech and the teacher. Once, it enables a form of communication between both.

The field of assistive technology is a subject little addressed in the scientific environment, which has offered us few authors who deal with this subject.

Despite these impasses, the teachers have sought to adapt the activities within a constructivist proposal either through technological resources or simple material, but of little durability.

From everything we analyzed, we understand that teacher training should bring more of this theme of assistive technology, combining the reality of each school. And, the participation of all who do school management should be integrated into these actions.

It is also appropriate to have a greater role of the government to implement public policies that strengthen the work of the resource rooms as a complement to the regular pedagogical activities.

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