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PLAYFULNESS AS A METHODOLOGICAL POSSIBILITY IN THE PROCESS OF TEACHING AND LEARNING MATHEMATICS IN ELEMENTARY EDUCATION

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Abstract: Ludic has its origin in the Latin word “ludus” which means “game”. Playfulness aims to make the teaching/learning process dynamic, pleasurable, spontaneous, happy and attractive, where the student will have the cognitive capacity to develop their own knowledge in a free, enjoyable way, and can stimulate their imagination. The objective of the research is to analyze how playfulness is being used in the teaching/learning process of mathematics in the 1st year of elementary school. The research was carried out in a public school in the city of Itambé - PE, in the urban area. Therefore, we seek to answer the following research question: How is playfulness being used in the teaching and learning process in elementary school?

Keywords: Playfulness; teaching; learning; mathematics; elementary school.

INTRODUCTION

Ludic has its origin in the Latin word “ludus” which means “game”. Playfulness, especially in early childhood education, proposes that the game stops being a mere and simple leisure activity and becomes a great ally in educational procedures in literacy programs in children’s activities. The playful proposal in educational activities is a tool that the educator can use to make the teaching and learning process more pleasurable, where the child can learn by playing, more freely, with toys and games with mechanisms in which they feel pleasure in being in the school environment, doing what they like most. This way, play comes to propose to the student their integral development, whether in the affective, social, motor and intellectual aspects, finally in their contact and discovery of the world.

It is in childhood, in the early years, that they will have their first contacts with school, and in this contact a charming vision must be passed on to them, as something easy to learn and the playful proposal will be precisely so

that from an early age the child can build a pleasant look at everyday school life, through games and games that can encourage the exploration of the content proposed for it.

The lack of playful activities in the educational context can cause an increase in academic failure and student dropout from schools, and the educator can seek in the playful proposal to promote satisfactory results in the development and learning of students. The search for innovation in pedagogical practices with attractive activities that can arouse the interest of students is not an easy task, as it requires time and dedication from the educator, but currently in the educational scenario this mission is becoming indispensable, however in the midst of so much technology, where Children have access to and ease of handling state-of-the-art digital devices from an early age. Traditional educational practices are no longer sufficient, no longer able to satisfy or guarantee students’ permanence at school. Therefore, we seek to answer the following research question: How is playfulness being used in the teaching and learning process in the 1st year of elementary school?

Therefore, the objective of the research is to describe how playfulness is being used in the teaching and learning process in the 1st year of elementary school.

The relevance of this work is due to the need to discuss the topic in social and educational contexts, because mathematics is socially indispensable, because it is present in our daily lives, implicitly or explicitly, and using the proposal of playfulness to work in the classroom is an intelligent way to overcome the obstacles of monotonous and repetitive teaching, breaking the “big problem” and transforming it into an inexhaustible source of satisfaction, motivation and social interaction.

THE CHARACTERIZATION OF THE RESEARCH

The research approach is qualitative, descriptive in nature and regarding the type of field.

According to Oliveira (2007),

Among the most diverse meanings, we conceptualize qualitative approach or qualitative research as being a process of reflection and analysis of reality through the use of methods and techniques for a detailed understanding of the object of study in its historical context and/or according to its structuring (OLIVEIRA, 2007, p. 37).

Therefore, qualitative research seeks to understand the meanings of the object of study, that is, what is being researched. Therefore, qualitative methods point us towards research that is closer to people's daily lives and experiences.

According to Godoy (1995),

The so-called qualitative studies have as their fundamental concern the study and analysis of the empirical world in its natural environment. In this approach, the researcher's direct and prolonged contact with the environment and the situation being studied is valued (GODOY, 1995, p.62).

Qualitative approach methods seek to understand the phenomenon from the perspective of the subject being studied, in search of new discoveries and information, verification and expansion of existing knowledge. Qualitative research seeks to try to explain in depth the objectives of the research, without worrying about quantity, only with what concerns the subject and their daily life.

The research is descriptive in nature, as we seek to describe the phenomenon by establishing relationships between the results and the object of study analyzed. This type of research describes in detail how the phenomenon happens, taking into consideration its reality. According to Oliveira (2007):

Descriptive research goes beyond the experiment: it seeks to analyze facts and/or phenomena, making a detailed description of the way these facts and phenomena are presented, or, more precisely, it is an in-depth analysis of the reality of the research (OLIVEIRA, 2007, p .68).

Therefore, research of a descriptive nature will allow greater complexity in the analysis and description of the reality of the phenomenon, that is, a comprehensive and detailed description of the research phenomenon.

According to Ruiz (2009), field research, in turn, "consists of observing facts as they occur spontaneously, collecting data and recording variables presumably relevant for further analysis" (RUIZ, 2009, p. 50). This type of research aims to provide the researcher with the opportunity to observe the phenomenon in real time, that is, in which it occurs, for better interpretation and analysis of the data collected.

According to Laville and Dionne (2007), field research allows the researcher to:

...actively integrate into the "field" he wants to explore: he, then, is nothing more than a witness, a dead weight that, on the other hand, many means could not get rid of, or that their rules or traditions would prevent them from admitting. Their integration, their participation in activities certainly varies depending on the environment addressed and their status in that environment. This participation, however, occupies an important part of his time and efforts, a part that he disputes as the search for information, making the latter richer. This search aims to gather as much data as possible (LAVILLE and DIONNE, 2007, p. 154).

This form of research is where the researcher will have direct contact with the subject and the environment to be studied, this contact will allow the researcher to actively participate in the activities carried out in

that environment in which the phenomenon occurs, allowing the researcher to collect data in a more precisely, enriching it even more.

The instruments and data collection procedures carried out in this research are the interview and the pedagogical workshop.

In this context, the interviews were carried out with 03 teachers from the kindergarten II classes of early childhood education.

The pedagogical workshop was carried out with students who make up the Kindergarten II classes of early childhood education, at a public school in the municipality of Itambé-PE. The pedagogical workshop allows the researcher to put into practice their strategies for data collection procedures and research objectives, together with its participants, describing and reflecting on the phenomenon through action and with direct contact with its environment. Appropriating construction and production based on theory and practice for reflection.

MATHEMATICS IN THE CONTEXT OF PLAYFULNESS

Mathematics in the context of playfulness is a search to make teaching and learning more meaningful, not only in mathematics but in all curricular teaching components, but mathematics, as it is seen as one of the most complex and difficult components to learn, is requires more dynamic and attractive teaching and play has not only these requirements, but dozens of others that can propose ways of learning and coexisting in the school space in a more motivating and pleasurable way.

According to Cunha e Silva (2012),

Playful mathematics is an essential tool ready to meet the need to pedagogically prepare classes with greater enjoyment and entertainment, helping the student to analyze, understand and elaborate situations that can solve certain problems proposed by the teacher, allowing the analysis and understanding of the proposition exposed

by the teacher. student – the result – and thus acquire knowledge, interpret and articulate methods to argue and implement problems (CUNHA and SILVA, 2012, p. 02).

Playful mathematics is a very important and essential tool in the needs with regard to the elaboration of pedagogical practices, that is, the development and planning of classes, for better student use of it, having a better conception of understanding and solving problems proposed by this curricular component.

According to Figueredo (2011),

Play has been studied and seen by scholars as one of the ways to teach, especially in mathematics, which is feared by many, making it one of the reasons for importance, where the student's development of self-esteem, autonomy, and playful activities through Games give them the opportunity to make them more confident, developing meaningful skills for their lives in the classroom and in society (FIGUEREDO, 2011, p. 39).

Therefore, play is an attempt seen by scholars to improve ways of teaching, to improve teaching pedagogically speaking, especially in mathematics, which in some cases may be unwanted by students. Through playful resources, mathematics can be seen differently and with its true importance, being able to develop self-esteem and autonomy, to try and feel capable of interacting with different curricular components and acquiring skills.

According to Cunha e Silva (2012),

It is necessary to emphasize that playfulness, when well used, provides the teacher with great productivity in their professional practice, developing in the student skills never imagined in a traditional class. The benefits are numerous, especially with regard to the interaction of students with the teacher, creating a more affective climate in the classroom, in addition, of course, to developing in the student a greater capacity for concentration, intuition and creativity

when faced with the challenges of games that must be played. very well thought out to stimulate all these skills (CUNHA and SILVA, 2012, p. 03).

In this sense, playfulness when well planned, taking into consideration, the objectives to be achieved, not only for students to learn and also for the teacher to evaluate their educational practices, it can have its true effectiveness for teaching, where traditional practices in Currently, they are unable to develop the skills expected by the educator.

There are many benefits of this new way of seeing and practicing teaching, providing better interaction between teacher and student, which transforms the school environment more affective and conducive for students to develop and sharpen their abilities by developing skills and abilities.

According to Cunha e Silva (2012),

Playfulness is undoubtedly a great opportunity for Mathematics teachers to develop other skills and competencies in students. Thus, play must be used with motivation in teaching Mathematics, aiming to make classes more attractive and stimulating, being the most efficient tool to demystify the idea that people have of this field of knowledge as containing content that is difficult to understand and for few. This alternative proposed by play in Elementary Education aims to awaken the desire for mathematics and introduce students to the first notions of how to develop and use this knowledge, providing a foundation so that they can, throughout their school life, cover their concepts in terms of concerns the scope of Mathematics. The student, in Elementary School, plays and, through the game, develops mathematical concepts even unconsciously. The game is no longer just a joke, even if the student is unaware of this fact (CUNHA and SILVA, 2012, p. 04).

Therefore, playfulness is a tool that mathematics teachers can use to develop skills and competencies in students. It is a motivating, attractive and stimulating

resource, demystifying the idea that mathematics is a difficult resource. In Elementary Education, play has one of the main purposes, which is to awaken in the student the desire to learn mathematics and to introduce it into the social context, as this is an integral part of each student's life.

RESULTS

THE SEARCH FIELD

The field research was carried out in a municipal public school, located in the urban area.

The school is small and has 10 rooms where early childhood education and the initial years of primary education are held in the morning and afternoon. The physical structure of the institution consists of 01 secretariat room, 1 management room, 01 coordination room and 05 bathrooms, 01 of which are for the use of teachers, 04 for the collective use of students.

The school's teaching staff is made up of 01 (one) manager, 02 (two) coordinators, 20 teachers, 02 (two) lunch ladies, 04 (four) general service assistants and 02 (two) doormen.

THE INTERVIEW

Seeking to answer the research question: How is playfulness being used in the teaching and learning process in the 1st year of elementary school? We collect data in the research field.

In this context, we conducted an interview with 03 teachers from a municipal public elementary school. The interview presented questions about Playfulness as a methodological possibility in the teaching and learning process in elementary school.

Therefore, we present the results and analysis of the same.

Question 1: Do you consider the practice of playfulness in schools important? Comment.

In the first question of the interview we can see that all three of the teachers consider it important to practice play in schools, because this way children can interact and learning is not only faster but also pleasurable, it takes place in a practical way, it is very important to join Playfulness with the students' prior knowledge makes everything more satisfactory, providing improvement in the course and development of learning. From play activities, students show greater development of their skills because it enables satisfactory and meaningful learning.

Question 2: How often do you use play in your educational practices?

In this regard, teachers often use play in their educational practices, especially when new content appears.

Question 3: Do you usually evaluate students through playful activities? Comment.

The teachers stated that they usually evaluate students through playful activities, they always try to observe their participation during the implementation of activities, that each activity is provided with assessment and is done after and during the activities, the playful activities developed all have an objective to be achieved, they are not at random, through the use of playful activities students adopt behaviors and skills that sometimes they do not demonstrate that they have mastered.

Question 4: What types of recreational activities do you usually use?

Regarding the fourth question, the teachers listed some types of recreational activities that you usually use in the classroom, such as games, drawings, dances, puppet shows, music, dramatizations, walks and the use of concrete materials.

THE PEDAGOGICAL WORKSHOP

To collect data in the field of research, a Pedagogical Workshop was held with a class from the 1st year of elementary school I, in the morning shift, at a municipal public school, located in the urban area. The class is made up of a teacher, 21 students, 12 boys and 9 girls, aged 6 years. On this day, 10 boys and 7 girls were present at the workshop.

The content of the Pedagogical Mathematics Workshop was about the monetary system, with the objective of recognizing, through the playful activities carried out in the mathematics workshop, the banknotes and coins of the current Brazilian monetary system. The origin of money and how to use it in buying and selling situations, through the simulation of a mini shop.

The experience of being able to carry out this Pedagogical Mathematics Workshop was very important for research, as I was able to understand in practice how to use playful resources and the results they provide in the methodological practice of teaching and learning for students. The results are immediate, with the interest it awakens in each student and their development. Therefore, it was a very valuable experience.

FINAL CONSIDERATIONS

The difficulties encountered during the research were in realizing that even though education professionals make use of playful educational practices, some are unaware of the main benefits that playfulness can provide to the teaching and learning process not only in mathematics, but in all components curricular, use play only because it is a different way of teaching new content, with games and games that are carried out just for fun, relaxation and to pass time, and playfulness must be used by the educator in a contextualized way and must always have the objectives to be achieved. be achieved by students, facilitating the

assessment that the teacher can make about them and their practices.

The positive points of the research were being able to learn about play, its benefits, objectives and how it works in practice through the mathematics pedagogical workshop. In the varied mathematics content seen in elementary school I, this is a curricular component that we can make the most use of playful resources, those already existing and used by educators can also provide the creation and adaptation of other proposals for games and games that can enrich increasingly their educational practices. All this experience during this research allows us to develop our educational practices, always focused on trying to innovate in order to increasingly improve the quality of teaching, chasing new educational proposals and their true objectives, satisfying not only the students, but also us. educators in being able to see our practices having the effects that education needs.

According to research, recreational resources are currently indispensable in the teaching and learning process, compared to other curricular components, it is in mathematics that we can make the most use of these resources, as in addition to being able to use all existing games and games, we can adapt them depending on the content to be explored and your objectives to be achieved in the class, we can create new options, build toys or games, or make use of industrialized toys, in other words, it is a universe to be explored.

It is in the early years that students have their first contact with the content, with the curricular components, with the entire school context, that is, it is the beginning of their school career, the way in which they

will interact and develop in this environment must be seen by the teacher as something very important, the methods used by the educator must consider the student not only learning, but how the student will construct their learning, how they will be welcomed in this school environment. These concepts will be decisive throughout their school career, that is, throughout their life, and this will depend on the educator, who needs to have the thought of trying to provide the child with a pleasurable education, which is precisely in the early years that they must work must be developed so that she can take it in a positive way, thus avoiding traumas that hinder her intellectual development. Mainly in the mathematics curricular component where many people feel like a “seven-headed beast”, thinking they are unable to pass any entrance exam or competition, this could perhaps have happened due to the way mathematics was shown to them. This student, being something that only needs to memorize many calculations and formulas, the role of the educator in working on mathematics content will be very important and decisive in the life of the human being.

This research seeks to prove the effectiveness of using playfulness in methodological practices in the process of teaching and learning mathematics, where the educator must make the most of playful resources such as games and activities, including educational projects and practices that can promote the integral development of the student., with the acceptance of play being visible, which can enrich them, as traditional practices are no longer effective, technology is increasingly advanced and children from an early age have access to these.

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