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THE ACTIVE SOLIDARY LEARNING METHODOLOGY IN A SCHOOL PROJECT

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ABSTRACT

This article analyzes the school project "From Garbage to Playfulness: Inventions and Constructions of Recyclable Toys," developed at EMEF Maria Luiza Bello da Silva, with the objective of strengthening student protagonism through the active methodology of Solidarity Learning and working on environmental awareness. The project encouraged students from 1st to 5th grade to build toys from recyclable materials, aiming to develop cognitive and motor skills, in addition to engaging them in sustainable practices and social responsibility. Emphasizing collective knowledge, collaboration, and community interaction, the project has established itself as a transformative teaching practice. The methodology adopted was descriptive and exploratory, with a qualitative focus; For data collection, participant observation and focus groups were used, capturing perceptions and attitudes of the participants throughout several stages. These stages included environmental awareness workshops, collection of materials and construction of toys, culminating in the creation of an itinerant toy library that encouraged solidarity donation and the reuse of resources. The results indicate that Solidary Learning enhances practical learning and strengthens the integral development of students, forming critical, collaborative citizens who are aware of their role in society.

Keywords: Solidary Learning. Active Methodology. Sustainability. Environmental education. Student Protagonism.

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Revista ARACÊ
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INTRODUCTION

The project "From Garbage to Playfulness: Inventions and Constructions of Recyclable Toys" was created and developed at EMEF Maria Luiza Bello da Silva with the aim of combining environmental education with pedagogical practice, using the construction of recyclable toys as a teaching tool. Developed in the context of Physical Education classes, the project aimed to improve students' fine motor coordination and sensitize them about the importance of caring for the environment, encouraging sustainability practices from childhood.

One of the main didactic and methodological bases of this project is Solidarity Learning, which presents itself as an innovative educational approach, centered on student protagonism and community involvement. Solidarity Learning seeks to integrate the school curriculum with activities that involve social actions, so that students, when learning, also play an active role in transforming the reality that surrounds them. In this way, the methodology proposes a learning process where students are protagonists, exercising their skills and knowledge in favor of a common goal, which benefits both the student and the community.

In the context of this project, Solidarity Learning was chosen to structure the construction of recyclable toys, with the objective of going beyond theoretical learning, promoting values such as cooperation, citizenship and solidarity, aligning with the proposal of a comprehensive education. This educational approach seeks to form active citizens, not only knowledgeable about norms and values, but also responsible participants in the construction of alternatives to social problems.

Thus, as Tapia et al (2015) explain, the pedagogy of service-learning proposes a citizenship education that encourages the elaboration of proposals and active participation in initiatives aimed at the common good, assuming responsibilities and collaborating with authorities and civil society organizations.

The construction of an itinerant toy library, stocked with toys produced and donated by students, is a concrete example of this methodology in action, where school learning transcends the classroom and becomes a collective experience of knowledge construction.

Therefore, this project sought to strengthen environmental awareness in students and also consolidate a pedagogical practice based on solidarity action and the development of social and motor skills in a playful and meaningful way. Based on these premises, Solidarity Learning becomes a facilitating methodology for integral education, forming

Revista ARACÊ
ISSN: 2358-2472

citizens who are more aware, responsible and engaged with the environment and the community where they live.

THEORETICAL FOUNDATION

The active methodology of Solidarity Learning represents an innovative approach in the educational context, focusing on student protagonism and the integration of knowledge with practical actions of social impact. It is based on the idea that learning is most meaningful when linked to activities that provide concrete benefits to the community, promoting the development of cognitive, social, and ethical competencies. Thus, the school is not only a space for the transmission of knowledge, but a place of social transformation and citizenship formation.

One of the fundamental pillars of Solidary Learning is the conception that students are protagonists of the educational process (Tapia, 2019). Unlike traditional approaches, where the student is a passive receiver of information, in this methodology students actively participate in the planning, execution and evaluation of actions. This allows for a deeper understanding of the content, since the theoretical concepts are applied in real contexts, making it easier to retain and understand learning.

The idea of Solidary Learning is inspired by the four pillars of education proposed by UNESCO (1996): learning to know, learning to do, learning to live together and learning to be. These pillars are applied in an integrated way, so that theoretical knowledge is put into practice through actions that benefit the community. The interaction between students and the social environment fosters skills of coexistence, leadership, teamwork, in addition to strengthening ethical and citizenship values.

In school projects, Solidarity Learning offers the opportunity to integrate curricular content with social intervention practices. This means that school activities are not disconnected from the social reality of students, but become part of a transformative experience. By responding to the real needs of the community, the projects gain relevance and students realize the impact of their actions, which increases motivation and engagement in the learning process.

The role of teachers in Solidarity Learning is also essential, as they act as mediators and facilitators of knowledge, encouraging students' autonomy and guiding them in the construction of meaningful projects. The challenge is to create an environment that encourages curiosity, investigation and reflection, allowing students to develop not only

Revista ARACÊ
ISSN: 2358-2472

cognitive skills, but also emotional and social skills, which are fundamental for the integral formation of the individual.

Another aspect of Solidarity Learning is the concept of horizontal solidarity, which differs from the traditional view of charity. In horizontal solidarity, the community is not seen as a passive recipient of the students' actions, but as an active partner in the learning process. This implies a model of collaboration where both students and the community learn and benefit from each other. This approach promotes the development of a sense of collective responsibility and contributes to the formation of a more just and equitable society.

In the school context, Solidarity Learning can be applied in various areas of knowledge, whether in the sciences, arts or humanities. Interdisciplinarity is a key element of this methodology, allowing different disciplines to work in an integrated way around a common problem, broadening students' understanding and involvement. Projects that use this methodology often involve activities such as field research, awareness campaigns, construction of artifacts, or direct interventions in the community, all aligned with the educational objectives set out in the school curriculum (Tapia, 2019).

Solidary Learning favors the cognitive development of students, and also strengthens the ethical and moral dimension, essential for the formation of conscious and participatory citizens. Participation in solidarity projects provides students with a practical experience of values such as empathy, social justice and respect for diversity, values that are hardly fully understood through theory alone.

In addition, Solidarity Learning favors the development of socio-emotional skills, which are increasingly recognized as fundamental in the contemporary educational context. The ability to work in a team, to resolve conflicts, to make collective decisions, and to communicate effectively are skills that are naturally developed in learning environments that value cooperation and social interaction.

Solidarity Learning projects also have the potential to create a "virtuous circle", so much so that Tapia (2007) infers that such a circle between formal learning and solidarity actions is probably the key to a good solidarity learning-service project. In the school environment, where student engagement generates improvements in school learning and the impact of solidarity actions strengthens student motivation and commitment. This positive cycle contributes to the construction of a more collaborative and integrated school

Revista ARACÊ
ISSN: 2358-2472

culture, where all members of the educational community are co-responsible for the teaching-learning process.

The active methodology of Solidarity Learning is, therefore, a tool conducive to integral education, as it goes beyond the simple transmission of content and proposes a profound transformation in the way the school relates to society. This methodology challenges traditional teaching models, placing the student at the center of the educational process as an agent of change, capable of transforming not only their own life, but also the reality around them.

The differential of Solidarity Learning in the educational context lies in its ability to transcend a traditionalist curriculum and bring to light new learning opportunities. Using the Multiple Intelligences proposed by Howard Gardner (1995), this methodology recognizes that students have different ways of learning, whether through logic, language, musicality, spatiality, kinesthesia or interpersonal relationships. In addition, the methodology integrates the concept of Meaningful Learning, defended by David Ausubel (2003), by encouraging the knowledge acquired to be relevant to the students' life context.

METHODOLOGY

This research, based on Gil (2002), had a descriptive and exploratory approach with a qualitative focus, aiming to understand the experience of students and the community in the process of transforming recyclable waste into toys. This method allowed us to explore the perceptions, feelings and attitudes of the participants about the importance of sustainability and the reuse of materials, aligning with Solidarity Learning as a methodological didactic basis, which united theory and practice to bring about significant social changes.

For data collection, participant observation was used (Gil, 2002), where one was directly involved in the activities, recording observations in a field diary. The active presence allowed us to capture the engagement of students and the community in all stages of the project. The focus groups were organized with the students to promote a collaborative discussion, in which they discussed the stages of the project, the construction of recyclable toys and the creation of an itinerant toy library.

This technique made it possible to understand how the project influenced the social relations and ecological awareness of the participants. In addition, an analysis of the toys

Revista ARACÊ
ISSN: 2358-2472

made by the students was carried out, evaluating creativity, reuse capacity and motor development, in addition to verifying awareness about garbage and its reuse.

The development of the project followed four main phases based on the project development stages of Solidarity Learning (Tapia, 2019): In the initial planning and awareness phase, workshops on sustainability and recycling were held, in which the researcher observed the reactions and the level of engagement of the students, recording the first impressions of the participants. In the development phase, which involved the collection of materials and construction of toys, students participated in sessions to create recyclable toys. During this phase, the perceptions about the creation process and its impact on the understanding of waste reuse were documented through videos.

In the implementation phase, the itinerant toy library was set up with the support of the community and taken to the event, the culmination of the project. Through participant observation and focus groups, the impact of the toy library on children and the community was evaluated, especially in aspects such as playfulness, cooperation and empathy developed among the participants.

In the last phase there was reflection and evaluation, focus groups were held again to promote a collective reflection on the experience, documenting the perceived impact of Solidarity Learning on the formation of sustainable habits.

ANALYSIS OF THE RESULT

The results of the project "From Garbage to Playfulness" stood out for their positive impact on the development of students in several dimensions, such as motor skills, environmental awareness and socio-emotional aspects. As Tapia observes in the Solidarity Learning Manual (2019), the methodology applied allowed that:

> Children, adolescents and young people apply their knowledge to meet the perceived needs of their community and, at the same time, develop skills for life, work and citizen participation (Tapia, 2019, p. 9).

This point emphasizes the achievement of a comprehensive education, positively influencing different spheres of student education.

There were also significant advances in the fine motor coordination of the students. During the construction of the recyclable toys, the students handled various materials, such as plastic bottles, cardboard, lids, and fabric scraps, skills that the manual suggests as part of "field activities that should allow the development of basic life skills" (Tapia, 2019, p. 10).

Revista ARACÊ
ISSN: 2358-2472

This practice, in addition to improving the motor performance of the students, also promoted greater self-confidence when they realized their ability to build something with their own hands.

According to Bueno et al., (2020), there is a need for strategies to improve fine neuropsychomotor coordination in children, and they highlight toys as one of these strategies. They also argue that the toy must be of low cost and high effectiveness, that is, the toy must contribute significantly to the development.

In addition to manual skills, there was a significant improvement in the environmental awareness and sustainable practices of the students, since, in the project, the students reflected on the impact of garbage and pollution on the environment and on the importance of recycling, a change that the manual lists as "Solidarity projects generate opportunities for positive interaction both within the school group and in the interrelationship with people, diverse organizations and social realities" (Tapia, 2019, p. 11). This reflection was transformed into practical actions, both inside and outside the school, with students adopting more sustainable behaviors, such as reducing the consumption of disposable materials, encouraging the separation of recyclable waste and raising awareness among family members about the importance of reuse.

Studies such as those by Triches (2015); Carvalheiro (2022); and Cavalcante (2024) emphasize the importance of creating healthy habits in students within the school so that they take these habits into their lives and thus impact their communities and result, even if in a long time, in social transformation.

The creation of the itinerant toy library, made entirely of recyclable toys and donated to needy children, was a concrete symbol of this learning, demonstrating that the theoretical concepts of sustainability were being applied in a practical way in the students' daily lives. According to the manual, the construction of concrete elements allows solidary service-learning projects to bring the opportunity to engage with the community context and develop meaningful and functional learning not only in the classroom (Tapia, 2019, p. 26). Thus, the toy library was not only a product of the project, but represents an extension of the students' learning and practical experience with solidarity collectives.

Another important aspect was the strengthening of the students' protagonism and autonomy throughout the project. Solidarity Learning values the protagonism of students, for Tapia (2019, p.39) "students as protagonists allows them to take ownership of the

Revista ARACÊ
ISSN: 2358-2472

process and assume community activities as in the learning processes involved is fundamental".

This autonomy generated an increase in the students' self-esteem, who began to feel valued and capable of leading initiatives. In addition, student protagonism also contributed to the development of social skills, such as communication, collaboration, and the ability to resolve conflicts, as students had to negotiate ideas and divide tasks among themselves.

The project also generated positive feedback from the school community, including parents, teachers, and school staff. Many parents reported that their children began to show greater interest in environmental issues and to discuss recycling at home, applying the knowledge acquired. According to the manual, this engagement aims to "(...) strengthen or promote the participation and commitment of families in solidarity proposals. (Tapia, 2019, p. 13), enriching learning and promoting involvement in topics related to the project.

The results observed showed a significant impact on student learning, which demonstrated a greater ability to connect theoretical concepts with practice. The construction of recyclable toys required the application of knowledge of geometry, physics and arts, facilitating the understanding of content that was previously seen as abstract. According to the Solidarity Learning Manual, this methodology allows you to:

> Students who apply the knowledge acquired in the classroom at the service of the specific needs of a community and, at the same time, learn values of solidarity and participation in a perspective of action-reflection-action (TAPIA, 2019, p. 10).

Reinforcing meaningful learning, in which knowledge is built from real and contextualized experiences, positively influencing different spheres of student education.

The final analysis of the results justifies the effectiveness of Solidarity Learning as a tool for integral and meaningful education. As the manual points out, this methodology "not only improves educational quality, but generates greater citizen commitment" (Tapia, 2019, p. 80).

According to Félix's studies (2023), integral education is an education that goes beyond the simple teaching of specific content, integrating cultural, social, and emotional aspects. This helps students develop a broader and deeper understanding of the world around them, promoting acceptance and respect for diversity. And meaningful learning emphasizes learning through hands-on, real-world experiences. Students, in addition to acquiring linguistic knowledge, also develop critical and problem-solving skills, making learning more relevant and applicable to their personal and professional lives.

Revista ARACÊ
ISSN: 2358-2472

The project "From Garbage to Playfulness" not only achieved its pedagogical objectives, but also promoted a transformation in the behavior of students, who began to adopt more critical postures and aware of their role in society. The recyclable toys and the itinerant toy library symbolize this change, because in addition to being the final products of a school project, they bring representations of a new way of learning, where knowledge is built collectively and in a meaningful and supportive way.

CONCLUSION

The project "From Garbage to Playfulness: Inventions and Constructions of Recyclable Toys" demonstrated the effectiveness of the active methodology of Solidary Learning as an essential tool for integral education. Through an approach that promotes student protagonism, sustainability, and connection with the community, the project was able to transform the educational process, involving students in a meaningful and practical way. From the initial motivation, which aroused the students' interest in the environmental issue, to the socialization of the results, which engaged the school community, the project showed that learning goes far beyond the classroom.

The Solidarity Learning methodology allowed students to learn theoretical concepts and apply them in a practical, concrete and relevant way to their lives. The construction of recyclable toys and the creation of the itinerant toy library were examples of how knowledge can be put into practice, promoting meaningful learning that reinforces the importance of environmental preservation and solidarity among peers. The students developed motor and cognitive skills, and even became more aware of their role as responsible, critical and participatory citizens.

The positive impacts observed go beyond the school environment, influencing the community and creating a legacy that can serve as inspiration for future initiatives. From the project, the school has consolidated itself as a space for social transformation, where education is seen as a dynamic and collaborative process, capable of generating real changes in the behavior of students and in their relationship with the environment. The methodology used provided a space for experimentation, creativity and autonomy, challenging traditional teaching models and showing that education can be more inclusive, practical and meaningful.

The experience of the project reinforces the importance of incorporating active methodologies, such as Solidarity Learning, into the school curriculum, as these promote a

Revista ARACÊ
ISSN: 2358-2472

comprehensive education that values not only school content, but also the socio-emotional development and citizenship formation of students.

By integrating sustainability practices and community engagement in the teaching-learning process, the "From Garbage to Playfulness" project contributed to the formation of students who are more aware, critical and prepared to face the challenges of the contemporary world.

In view of the results achieved, the project becomes an example of good educational practice, showing that education can go beyond traditional limits and incorporate elements that encourage social responsibility and commitment to the environment. The success of the initiative reveals the need to rethink the way we teach, bringing new learning opportunities that value the active participation of students and the connection with the reality around them.

Thus, the project leaves an important legacy for the school community, the certainty that it is possible to build a transformative education that makes sense to students and prepares them to act consciously in the world. The itinerant toy library, created from recyclable toys and donated by the students themselves, symbolizes this transformation, serving as a reminder that education, when combined with the solidarity practice and protagonism of students, can generate lasting and positive impacts for both the individual and society.

Revista ARACÊ
ISSN: 2358-2472

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