v. 2, n. 1, 2025

International Journal of
Exact Sciences

LA SALLE ROBOTICS TEAM

Marzué Epp Pereira
Teacher at Escola Estadual de Ensino Fundamental São João Batista de La Salle

Cleber Linke Mohr
Ninth grade student at the Escola Estadual de Ensino Fundamental São João Batista de La Salle

Davi Schaefer Silveira
Sixth-grade student at Escola Estadual de Ensino Fundamental São João Batista de La Salle

João Augusto Winkelmann
Ninth grade student at the Escola Estadual de Ensino Fundamental São João Batista de La Salle

Pietro Muriél Epp
Seventh grade student at the Escola Estadual de Ensino Fundamental São João Batista de La Salle

Sabine Epp Pereira
Eighth grade student at the Escola Estadual de Ensino Fundamental São João Batista de La Salle

Acceptance date: 24/02/2025

INTRODUCTION

This paper is a report on the experience of applying the "LA SALLE ROBOTICS TEAM" project, developed at the São João Batista de La Salle State School of Education Fundamental, a country school located in Vila Progresso, in the interior of the municipality of Arroio do Tigre, in the state of Rio Grande do Sul.

With the project, we believe that practicing new learning tools can help create a better world, for example, the use of recyclable and technological materials can help our community improve its quality of life through reuse and conscious disposal. Thus, we value interdisciplinarity, which involves various areas of knowledge, and through this we learn to develop logical reasoning, creativity, innovations, inventions and discoveries.

The aim of the project is to give students the opportunity to learn about other learning tools, such as computer science, programming, mechanics and electronics, as well as practicing sport for the health of body and mind. The name of the robotics team project stands for TIME (technology/time, computer science/innovation/inventions, mathematics/mechanics, experiences/sport).

The project is carried out during the school day, on Thursday afternoons in the computer lab, as well as at the teacher's house, where we have materials to work on assembling and disassembling equipment (examples: electric carts, old radios, which are donated by our community).

We justify the application of this work in our school because it goes beyond learning new technologies, we also have contact with other colleagues from other classes and, consequently, greater interdisciplinarity in educational and social knowledge among our colleagues.

It is of the utmost importance that all participants in the project have access to the same opportunities and we are always encouraged to take an active part in cooperative work, involving technological issues as well as sustainability. In this way, we arouse interest and a taste for discovery at every meeting.

The creation of projects ranges from a simple drawing to the assembly of cars and drones, as well as the programming of computer games. Our motto and team goal is: "Knowledge doesn't take up space", so we have a lot to learn.

METHODOLOGICAL PROCEDURES

Our project methodology is creative learning, with priority being given to developing connections between people and an environment that stimulates creativity and imagination, in other words, always aiming to build knowledge.

For this, we have an organization of pedagogical work, which is divided into two types of meetings: at school (in the classroom) and outside of school.

In the classroom, including bibliographic research and video lessons on the internet in search of learning, we also plan, prepare, prepare and carry out theoretical and practical activities. In addition, in our classes in the school's computer lab, we learned how to use computer tools, such as "Scracth", a programming language that enables autonomous learning in a simple and fun way.

In our fun, out-of-class lessons, which the students rate as the coolest, we went out to see some of the properties of local residents, learning a lot from them in practice. To cite one example, at the home of one of them, we did a playful outdoor activity, riding a wooden cart and making carts out of wood.

So we learn, we build, we draw, we animate, through musical moments, games, making cars, producing stories in which the students are the protagonists of their learning.

RESULTS AND DISCUSSION

The project is an excellent opportunity for the students to develop various essential skills, such as programming, because through the "Scratch" platform, everyone had to organize themselves and interact through cooperation between classmates, in other words, with a lot of respect between the students within their possibilities and programming skills. As a result, everyone created projects that fit into the platform, including songs, drawings and games, with the aim of interesting and bringing the students closer to their everyday reality and tastes.

In addition, we highlight the recreational sports part. After each lesson and task successfully completed, the students are invited to take part in outdoor games on the school premises or in the house they are visiting.

We also developed electric trolley repairs and inventions created with material that would often go to waste, which we made and presented at the school's robotics week, an activity that involves all the students.

During the robotics week, the work developed on the "Scratch" platform was presented, as well as the creation of a trolley out of recyclable material with the kindergarten students, so it was possible to show that the work developed contributes to the school's pedagogical practice for everyone.

In this sense, it must be said that learning "Scratch" and other computer tools, as well as teaching methodologies in pedagogical practice outside the classroom, in addition to developing logical mathematical and interdisciplinary reasoning, stimulates students' awareness of caring for the planet and the place where they live.

CONCLUSION

We conclude that this project is of the utmost importance to all the students involved, and that the results have been significant, as we can see their motivation and interest in learning. As it is a technological and manual project, the Robotics Team allows each of the students to be the protagonists of their own creation, awakening their imagination and creativity, thus making learning more enjoyable.

You can follow the development of the project on the instagram page time_robotica_la_salle

REFERENCES

Michel Figueiredo de Souza e Christine Sertã Costa, Scratch: Guia Prático para aplicação na Educação Básica, Editora Imperial, Rio de Janeiro, 2018. Acesso no site: https://educapes.capes.gov.br/bitstream/capes/566023/2/Produto%20-%20Michel%20de%20Souza%202019.pdf

Scratch - (Massachusetts Institute of Technology). Acesso no site: https://scratch.mit.edu/