

Experience report: A board game as a didactic resource in classes on parasitic diseases

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ABSTRACT

This study addresses health promotion in school education, emphasizing the importance of parasitology as a tool for understanding and combating diseases related to poor socioeconomic and environmental conditions. Using educational games, such as “Battle of Parasites”, developed during the UEPA Pedagogical Residency Program, the work aims to engage 8th grade students in dynamic learning about parasitology, facilitating the understanding of the life cycles of parasites and promoting the active participation of students in the construction of knowledge.

Keywords: Educational game, Parasitology, Science teaching.

INTRODUCTION

Health Promotion is characterized by a set of initiatives that allow people to have greater control over their own health and the social factors that influence it, seeking to improve quality of life. It is not limited only to the prevention of diseases, but encompasses training so that they can reach their maximum potential for self-care, through understanding and controlling the factors that influence their well-being (Ferreira, 2022). In this context, school education is relevant for its fundamental role in discussing and developing health concepts, organizing educational actions to promote students' health learning through the adoption of approaches in the curriculum that offer knowledge for a healthier life (Schwingel and Araújo, 2021).

Parasitology is a branch of biological sciences dedicated to the analysis of interactions between organisms of different species, which vary in their degree of mutual dependence. It enables a broader understanding and critical analysis of diseases caused by parasitic organisms, promoting knowledge about the understanding of the nature of the parasitic process and providing a better critical analysis of diseases that are associated with precarious socioeconomic-cultural conditions, people's lifestyle habits, and the environment (Ferreira, 2022).

According to Ferreira (2022), the strategies for inserting health content, which have been used in the scope of science disciplines in Brazil, have not been sufficient to guarantee the approach of content that can lead to the adoption of procedures and attitudes necessary for health promotion. In view of this,

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the use of pedagogical practices that value the student as a protagonist in their learning is an alternative that allows active participation in the learning process and involvement more effectively in the construction of different knowledge (Castellar, 2016). Among these alternatives, didactic games prove to be a satisfactory method for teaching science to the extent that they favor discussions and interactions among students, in addition to promoting the collective and playful construction of knowledge through a differentiated approach in the teaching-learning process (Muller et al., 2023).

The present study is based on an experience report lived during the execution of the biological sciences subproject, linked to the institutional project of the University of the State of Pará (UEPA), with the Pedagogical Residency Program, subsidized by the Coordination for the Improvement of Higher Education Personnel (*CAPES*), in the 2023-2024 biennium, with the objective of building and applying an educational board game based on the principles and rules of the classic "Battleship", as a motivational strategy for learning parasitology content, to science students, in elementary school.

MATERIALS AND METHODS

The experiences in this report were lived during the class regency held in 8th grade classes, at the Anésia da Costa Chave Municipal Elementary School, in the municipality of Paragominas – PA, from April 5 to 9, 2023. The activities were divided into three distinct moments, the first being reserved to highlight the students' previous knowledge about the subject, through conversation circles. The second moment was aimed at the presentation of the content through conducting, which had as its central theme the diseases caused by parasites. The teaching method developed used a constructivist approach, in a dynamic and dialoguing way. In the third moment, the playful activity was developed with a board game entitled "Battle of Parasites", previously created by the team of residents at the school, during the planning of the activities with the preceptor teacher. The game was built in the form of posters, with images of diseases and parasites related to the subject worked in class.

During the development of the activities, the students were divided into two large groups, with the mission of scoring against the opposing group, where each member had to reach a consensus with their respective group to choose which alphanumeric combination should be opened. Considering the hypothesis that the revealed sequence was related to some parasitosis, the player's group should inform the parasite causing that disease, and consequently try to find the position where it should be located on the board, and vice versa, if the revealed sequence was a parasite, the group should try to find out the disease caused by it, until the painting is finished. When the students chose a sequence in which it was occupied by the representation of a bomb, the group passed the turn to the opposing group. As the information was displayed on the board, the residents commented on the main forms of prophylaxis and control of parasitosis.

RESULTS

By actively participating in the 'Parasite Battle' game, students not only absorbed relevant information about the main parasitic diseases and their respective causes, but also stimulated critical thinking, problem-solving, and decision-making. Such skills are essential for a deeper understanding of the contents experienced through the situations simulated from the game (Figure 01).

Figure 01 – Representation and development of the game Battle of Parasites, in the classroom.



In this sense, educational games often encourage cooperation among students, whether working as a team to solve problems or competing in a healthy way. This not only improves the collaborative environment in the classroom, but also strengthens interpersonal skills (Miranda, 2002; Barros et al., 2019).

The results obtained in this experience were positive and the students' interest in interacting with residents and other students was notorious. The questions asked during the activity were answered spontaneously and immediately, which reveals that the students were comfortable, confident and engaged in the process. The activity was carried out in a calm and collaborative way, in which the animation and satisfactory performance of the students in competing and being able to win the games of the game during learning was observed, denoting that the objectives of the educational game were successfully achieved by the action.

FINAL CONSIDERATIONS

The use of the game Batalha de Parasitos in science classes, with the theme parasitology, not only improved the learning experience of the students, but also proved to have contributed significantly to the



achievement of the desired educational objectives, by facilitating a better understanding and knowledge about diseases caused by parasites, in a fun and relaxed way to learn, those who were able to actively participate in the activities elaborated.



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