

Scientific
Journal of
**Applied
Social and
Clinical
Science**

**“DESIGNING RESEARCH
IN SCIENCE” AND THE
REVIEW OF CONTENT
IN TEACHING IN FINAL
YEARS**

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Abstract: The work “Projecting Research in Science” and the Review of Contents in Final Years Teaching aimed to carry out an analysis of the student-teacher’s learning experience. In this case report, for the review of science content, thematic axes were suggested for the 8th and 9th grades, according to the pedagogical proposal of the Escola Municipal Fundamental Soares de Barros/Ijuí-RS. Based on these, students were instructed to carry out research, discussions and systematization of contents with an interactive and expositive exhibition. The activities carried out enhanced the review of science content, collaborating with the understanding of the theories involved in them and encouraging students to participate autonomously. Thus, it proposes to the educator to reconsider his practice and to the student to perceive himself as a transforming subject of his reality.

Keywords: Search. Sciences. Teaching.

INTRODUCTION

In education, it is important to encourage a different didactic proposal, which stimulates teacher-student and student-student interactions (BEUREN, 2009, p.17).

The insertion of educational school activities with greater student participation in the teaching-learning process collaborates with their affective development, providing opportunities for interaction between participants who become partners, working as a team.

The project “Projecting Research in Science” aimed to carry out a significant experience in the development of a more dynamic content review process, allowing the student to produce moments of knowledge within recreational activities; it is a fun way to guide the revision of the contents worked in science, providing students with the construction of questioning, dynamic and concrete knowledge. This work also aimed to bring reflections on teaching

and report the experience lived during the final years of the public school in Ijuí-RS, Escola Municipal Fundamental Soares de Barros, during the learning process. With this, an attempt was made to encourage teamwork (PCN, 1998). Such applications work as a way of socialization, preparing the student for sociability,

METHODOLOGY

In the preparation of activities to develop the project “*Projetando Research in Science*” the basic principles of the LDB were considered (Art.13 Items II and III), such as, “developing and complying with work plans according to the educational establishment’s pedagogical proposal, as well as ensuring student learning”.

Initially, for the 8th grade classes, it was suggested as thematic axes, the interaction of the meanings of life with the world that surrounds us; Human Being and Health. And, for 9th grade students, the thematic axes were Life and the Environment; Energy and Society. In this context, students were instructed to carry out research (websites, newspapers, magazines, etc.) in order to complement learning, in addition to seeking answers to questions (descriptive and objective) formulated on the contents worked during the quarters, such as: Environmental Education allied to Perception, stimulate the senses of life? What do we learn as we relate to objects in nature and to people? How to guarantee the quality of life and the preservation of nature? How to use alternative energy sources to educate the conscious consumption? Educating for sustainability affects the quality of life? Healthy and balanced environment, is it sustainable development?

In the following activity, we sought to make all groups interact, promoting the collective participation of students in the construction of knowledge, developing a democratic and dialogic educational practice”

(PCN, 1998, p. 34-35). For this, the groups reflected, elaborated ideas and dialogued with the other groups of colleagues/teachers about the different ways they could use to represent through thematic scenarios, expository and interactive practices, which demonstrate the contents studied.

To close the activities and finally the project, the students were challenged to build together the representation of all the scenarios, with the classes participating simultaneously in this confection and interacting with the different spaces. As directed (DA ROSA, 2009), each group is responsible for obtaining the necessary materials for the development of these spaces. Thus, for the evaluation of the works, an evaluation commission was constituted, formed by the teachers of all the disciplines of the final years, which, through oral presentations on the research proposal during the exhibition, evaluated the works and finalized the score with a grade from one to ten. points. Among the evaluative criteria, it was considered: the relevance of the theme; the theoretical foundation, or relevance of the information; coherence of research and investigation methodology; respect, communication, effectiveness of the orality of the activities presented; creativity in presentation; resourcefulness and overcoming difficulties; efforts of the group members and suitability of the presentation time (10 minutes maximum).

This work was successfully presented at the exhibition "Projetando Pesquisa na Ciência" among students from kindergarten and final years. An installation was set up in which visitors passed through different interactive and thematically decorated environments, getting to know important contents relating them to everyday situations and contextualizing them with scientific knowledge.

However, the main objective of the

exhibition was to encourage students to research various areas of knowledge, understand, analyze, observe, relate the theory and effectiveness of the scientific phenomena studied with everyday situations. Demonstrating, this way, the realization of the acquired knowledge, in which it provided a great integration in this learning process.

The exhibition began in the sector about the interaction of the senses of life, in which different environments were represented with images and sounds. Following, through a division in the room, visitors also watched a video about vision, optical illusions and performed interactive activities to analyze the influence of vision on flavor perception. And, it was still elaborated in this room a therapy environment to explore the benefits of touch and sight, the visitors were encouraged to perceive the sensations of being in that environment, provided through chromotherapy and hand massages (moments of relaxation and tranquility). In another classroom, a space was created that related the influence of sight, smell and texture on the perception of food taste and well-being during the exhibition.

The other works were exhibited in the school's auditorium, due to their dynamics and themes. In this place, tasting of flavored waters (with fruits and teas), presentation of the benefits of mint tea and tasting pineapple juice with and without mint, touch work with different objects, interactive reflexology workshop (therapy that takes care of the feet), presentations on forms of alternative energies x environmental sustainability with models. This exhibition ended with works produced using the concepts of magnetism and electricity to represent the development of technology.

RESULTS AND DISCUSSIONS

Therefore, the activities provided

participants with an opportunity to get out of the classroom, interact with different environments, challenging situations and explore different resources/materials. Interesting activities allow the exploration and systematization of knowledge compatible with the students' level of intellectual development (PCN, 1998). Those who express their prior knowledge, from school or not, associating them with the theories taught in the classroom, and through dialogue with colleagues and the teacher, manage to give meaning to their concepts, in addition to clarifying their doubts.

This practice obtained good results, since the groups debated scientific concepts and analyzed and identified theories in everyday practices. In addition, students needed to study strategies and choose suitable materials to carry out the proposed tasks. With this practice, students were allowed to relate the theoretical content with their reality, considering what they knew and then improving their knowledge. In this process, students needed to transform information into knowledge, confirming the importance of practical work in teaching (SMITH, 1975).

Therefore, one can agree with Hoering & Pereira (2004, p.19), when they state that, "the student, when observing the object of his study, understands the subject better, what is being observed can be manipulated, touched, allowing concrete observation and not just imagining it". At the end of the exhibition of this work, it was evident to the students the merits of the collectivity and the mutual cooperation that they demonstrated through teamwork. The course of this activity demonstrated that the teacher is a learning guide assuming the main role of questioner, also provokes reflection and autonomous solution of problems that may arise in carrying out projects that students propose to carry out (BORGES, 1998).

FINAL CONSIDERATIONS

However, the development of this project in an exhibition, with several reflections related to didactic contents, made the teaching and learning process more fun, encouraged teamwork, provided interaction between students-teachers-family members and developed in the student an attitude criticism. In addition, it improved the review of content, collaborating with the learning of topics covered in classes. In this context, the exchange of ideas enhanced the understanding of all sciences and theories, becoming more useful than the construction of individual thinking and encouraged students to participate by developing their knowledge and autonomy.

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