

RESEARCH ARTICLE

Impact of the University Extension Project on the Learning Process of Young People in Social Vulnerability Situated in Shelter for Minors

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Abstract: In this work, an assessment is made of the impacts caused by the university extension project called “Aprender Project” on the learning process of young people in situations of social vulnerability. We observed the influence of the project on the lives of young people who were temporarily sheltered in a temporary home in the city of Sete Lagoas. Young people are under 18 years of age and have been removed from their family because they are at risk. The project aims to insert an undergraduate to assist residents in their school tasks, in addition to proposing new activities that provide learning. We present an account of the methodologies that positively contribute to making the learning process more effective for these young people. We concluded that the project brought benefits to young people in terms of behavior, school performance and living with the institution's workers.

Keywords: Learning, Social Vulnerability, Young People.

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Introduction

The “Aprender Project” is an extension project approved at the Federal University of São João del-Rei (UFSJ) and was established based on the university extension guidelines. It is an initiative that seeks to improve the quality of learning for young people in situations of social vulnerability. It is proposed as methodology to use individual and group tutoring, physics experiments, playful teaching activities and, when possible, problem-based learning technique [1].

Young people in a situation of social vulnerability sheltered in a host institution have significant difficulties, especially in subjects related to physics and mathematics. These young people have members of their family group who are at risk, which makes the learning process more difficult [2].

It is necessary to emphasize that the family makes a relevant contribution to the educational development process of the young person [3]. Children and adolescents from 0 to 17 years old are welcomed into provisional homes when the guardianship council removes them from the care of their relatives and sends them to shelters until they can be returned to a new home, where they can develop safely.

As action mechanisms, the project makes it possible for students who study exact sciences at the university to help high school and elementary students who are accommodated at the institute. The process of approximation between students who are already graduating in exact sciences at the university and the young people they receive

aims to awaken young people to science and encourage them to evolve in their studies, and may even apply for a place at the university or in technical courses at the end of their training in high school. This stimulus is important because many young people welcomed come from low-income families and the continuity of studies can mean improvements in the quality of life of these young people. Thus, the project seeks to rescue in these young people the possibility of dreaming of a better future, which was often taken from them due to family problems and social inequality in Brazil.

In addition, in public schools in the region there is limited educational support, since the teacher has full classes and little time for individualized attention, which would be recommended, especially in the areas of exact sciences [4]. Schools, in many cases, present a precarious physical structure, which also makes practical activities difficult.

Characterization of Host Institutions

When relatives of a young person pose risks to him, whether through drug use, alcoholism or some other attitude that characterizes risks for the young person, the guardianship council removes the young person from his home and takes him to a shelter.

The shelter is generally maintained with public funds and the protection procedure is supported by the Child and Adolescent Statute (Federal Law No. 8,069, of July 13, 1990). In the city of Sete Lagoas there is also Municipal Law No. 7,972 of December 15, 2010, which regulates the Institutional Reception Service for Children and Adolescents in the city.

The host institutions in Brazil, in general, are a house where the adolescents live temporarily until a relative is found who agrees to shelter the young person or, in the last case, a foster home where the young person can develop safely.

In temporary homes, young people generally receive support from psychology professionals, social workers, nutritionists and educators, but there are rarely professionals with a degree who can assist young people in school activities, especially in the areas of physics and mathematics. This fact inspires the execution of the Aprender

Project, with the objective of meeting this demand.

Characterization of the Project and University Extension

The “Aprender Project” is a university extension project developed by the Department of Exact and Biological Sciences at the Federal University of São João del-Rei and follows national university extension guidelines. Such guidelines are reinforced in Resolution No. 7, of December 18, 2018 of the National Education Council of the Ministry of Education of Brazil. The guidelines for university extension in Brazil are dialogic interaction, interdisciplinarity and interprofessionality, inseparability from teaching-research-extension and social transformation.

The dialogic iteration is established by the university's contact with the sheltered youth who are high school students in public schools. This allows the university to know the educational realities of some students entering higher education today, reformulating public policies and rethinking processes to encourage learning. The project is interdisciplinary, as one of its objectives is to improve knowledge in physics and mathematics disciplines, which are distinct disciplines. He is also interprofessional, as the team is made up of professionals in the fields of physics, engineering, mathematics and humanities, mixing different backgrounds and allowing the exchange of experiences.

As for the inseparability of teaching-research-extension, it is a project that deals closely with teaching, as its activities are, in large part, theoretical and practical classes to support sheltered young people. But it is also a project that involves research, since the team must build technical reports and create practical experiments as a means of helping to understand the theory. In addition, it is a research task to assess the evolution of young people and adapt the project to better serve them.

As it acts directly in social programs promoted by the government to improve the quality of life of young people, the project has strong extension characteristics. When it comes to social transformation, the project aims at the intellectual maturation of young

people in the areas of mathematics and physics. This provides better chances for the low-income high school student to pass a higher education course, which can mean a significant transformation in the lives of these young people. Even for those who do not enter university, the project can mean a significant transformation in their lives, as it helps young people to develop better in their school activities, not leaving them helpless in this area.

Methodology

The execution of the Aprender Project has as methodology the scientific awakening of the welcomed people through individualized advice and practical work. It is known that host institutions have little support in this regard. In addition, practical work has a great influence on the learning process and should occupy a central place in the teaching of certain subjects, especially at the beginning of learning [5].

In the study of mathematics, the project encourages students to perceive applications of what is taught during their daily lives. Which, although not something experimental, is similar to what is intended when carrying out practical activities in the laboratory, that is, presenting something applicable. The impact of the practical application of what is learned has been studied for decades and extends from initial grades to university courses [6].

With this, the student is led, through the knowledge acquired in the school environment, to develop skills that awaken in him the scientific restlessness and the search for logical and reasonable explanations for phenomena and routine events, having his learning process monitored by his instructors [7]. In addition, the experimental and application activities in everyday life aim to fix what was learned at school. Experiments are carried out with handmade materials and of low cost, due to the lack of financial resources.

We try to give priority to experiments that bring visual stimuli and that arouse interest in the scientific explanation that is involved in the process. For public school teachers in Brazil, generally, do not have the tools and laboratories available to associate practical activities with what is taught in the classroom. In this case, whenever possible, to

promote the learning process, the Problem Based Learning technique was used [1].

In this approach, problems are presented to students and they try to seek solutions. It seeks to awaken students' interest in scientific knowledge during the experience of didactic activities that can also be implemented through games and games [3]. When possible, the monitors seek, through dialogue, to bring reflections on what was experienced in the experimental activities, games and games [5].

To stimulate the learning process, we seek to schedule times where attention can be given individually. Because during the school environment, teachers in Brazilian public schools do not have time for this, since they are obliged to simultaneously serve several students in their classrooms. As young people in a situation of social vulnerability usually have more difficulties due to the lack of family support, individualized assistance is essential so that at that moment the young person can ask questions about their homework sent by the school.

The feedback regarding the impact caused by the activities developed by the execution of the project is obtained through the reports of the technical team of the host institution. Students' school grades are also monitored by the technical team and can be used as a parameter to give feedback to the project monitors. Young people are encouraged to speak, through questions asked during the learning process [8]. Observing their interest in what they wanted to teach is also a way of monitoring the impacts caused by the project.

Discussions

The project has a proposal aimed at experimenting and applying concepts of physics and mathematics in the daily lives of young people at the institute. However, many young people who arrive at the institute have difficulties in reading and interpreting texts. Some young people welcomed, even though they have passed the literacy school age established in Brazil, still do not know how to read.

Although the literacy process in Brazil has not been getting good results for some time [9], this situation is precarious and discourages young people, as they do not understand the written language presented

in their homework, they do not understand what the teacher writes on the board during

classes and feels inferior to his classmates [10]. Therefore, when reading and writing problems are identified, the articulators of the Aprender Project seek, first, to teach young people to read and write. In addition to practical classes and playful learning activities, the project monitors seek to allocate time for individualized care.

The levels of academic difficulties of the young people received are different. Thus, with individualized care, the young person served has a moment of exclusive attention, where he can present his doubts. This moment is important, not only to clear up doubts, but also to establish a relationship of trust between the young person welcomed and the project monitor. In addition, the young person received, during individualized care, feels important as an individual and not just another one in a group.

Another point that “Projeto Aprender” seeks to address is the constant interruptions in the learning process of young people, due to attempts at family reintegration. As a social policy, the host institutions work to reintegrate young people in their family environment, looking for close relatives with fixed residence with whom young people can live, as provided for in the Statute of Children and Adolescents (Federal Law No. 8.069, of 13 July 1990).

However, many attempts to reintegrate young people into new families fail, causing them to return to temporary homes. This process breaks the continuity of the learning process, because they often fail to receive didactic support from the Aprender Project during reintegration attempts. Therefore, when young people return to the host institution, the project monitors seek, through dialogue and observation of the young people's class books, to inform themselves about the difficulties that the host has been encountering in their classes, as well as to recapitulate the activities that were being done before the insertion process.

Thus, the young person welcomed feels stimulated and the monitor usually gets more involvement of the person receiving what is being taught at school. It is worth mentioning that we always try to establish a connection between experiments, games and

activities, with what is being taught at school. When young people return to the

institution, there is also an attempt to rescue the young person's trust in the monitor of the Aprender Project, thus, it seeks recreational activities that can reestablish the bonds of trust. The creation of a trusting relationship between the monitor and the young people received, either in an initial contact or when the young person returns to the institution, is extremely important, since it favors the learning process [11]. Many young people who are taken into foster care have a history of abuse by relatives. Because of this, such young people have difficulties in establishing bonds of trust.

So, it is necessary for the monitors to seek recreational activities and constant dialogue. In some cases, there is a rejection on the part of some shelters, but as they perceive the iteration between the monitor and the other host, they begin to approach and become involved in the process.

In the experiments, the aim is to make the participants perceive visually interesting effects, as this arouses their curiosity to understand the experiment, as well as the physical laws and the possible mathematical equations involved. Unfortunately, the host institutions do not have the resources to buy equipment for virtual experimentation, which could further instill the curiosity of the host [5].

In the evaluations that seek to verify the effect that the Aprender Project has been producing in terms of improvements in the learning process through dialogue with those responsible for the host institution served by the project, significant advances were reported in the learning process of the young people received. The monitors also seek to establish a dialogue with the host to obtain feedback on the benefits of the project seen by the participants themselves.

It can be seen from the reports of the young people welcomed that the Aprender Project gives those incentives not only to keep studying, but in some cases also to enroll in professional training courses. Observing the evolution of the grades obtained in school evaluations, it is noticed that there is an increase in their averages. In all these forms of assessment, the Aprender Project has been shown to be efficient in improving the quality

of the learning process of young people taken in temporary homes.

Conclusion

The development of the “Projeto Aprender” has been important for improving the quality of the learning process of the young people who participate in it. It is observed that the project stimulates the young person's curiosity with the proposed experiments and activities. When seeking to understand the topic addressed in the project activities, young people get involved with the content presented in the classroom.

The individualized accompaniment that the project provides, supports young people during the development of their school activities sent home. As a result, there is a greater involvement of young people with their school tasks, since they have help to clarify their doubts, making the tasks feasible. The result is reflected in the school grades, as it was observed that young people who participate in the project have their school performance improved over time.

The project also seeks to encourage young people to stay in school, as many sheltered in temporary homes tend to drop out of school, often due to difficulties in homework, because they are late in relation to other students and because they have difficulties in reading and writing. With the participation in the project, all these difficulties are alleviated, since the Aprender Project seeks to remedy the personal academic deficiencies of the young people welcomed.

This keeps them encouraged to stay in school. However, there is still a lot to evolve in terms of public policies that guarantee a better quality of life for young people living in temporary homes, but for that, investments of government resources are required that allow homes to have a better didactic-pedagogical support structure enabling the continuous monitoring of young people, even when they are reinserted in relatives' homes, avoiding breaking the continuity of the learning process.

It would also be important for government resources to be allocated to enable teaching activities to be presented to young people received in a playful and experimental manner with high quality. However, the beneficial social effects of the Aprender

Project are evident, with regard to improving the learning process and maintaining the school bond for young people sheltered in a temporary home.

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