Research as a pedagogical principle in the context of PROEJA[1]

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ABSTRACT

This study aims to understand the fundamentals that guide the Federal Institutes of Education, Science and Technology (IF), in order to understand the conceptual bases of research as a pedagogical principle in the context of the Program for the Integration of Professional Education to High School in the Modality of Youth and Adult Education (PROEJA). It is characterized as exploratory and descriptive research, based on a qualitative and dialectic perspective and the bibliographic technique. It is organized in 02 (two) sections: a) it addresses the conceptual bases of the IF, emphasizing research as a pedagogical principle; b) presents the analysis of an account of teaching experience with research in the context of PROEJA. It is concluded that classroom research is inseparable from teaching. Thus, it is necessary to create effective spaces in PROEJA so that students can deal with elements inherent to research such as questioning, the construction of arguments, written production and dialogue.

KEYWORDS: Research. Youth and Adult Education. Teaching.

A pesquisa como princípio pedagógico no contexto do PROEJA

RESUMO

Este estudo tem por objetivo conhecer os fundamentos que norteiam os Institutos Federais de Educação, Ciência e Tecnologia (IF), de modo a

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compreender as bases conceituais da pesquisa como princípio pedagógico no contexto do Programa de Integração da Educação Profissional ao Ensino Médio na Modalidade de Educação de Jovens e Adultos (PROEJA). Caracteriza-se como pesquisa exploratória e descritiva, pautando-se em uma perspectiva qualitativa e dialética e pela técnica bibliográfica. Está organizado em 02 (duas) seções: a) aborda as bases conceituais dos IF, enfatizando a pesquisa como um princípio pedagógico; b) apresenta a análise de um relato de experiência do ensino com pesquisa no contexto do PROEJA. Conclui-se que a pesquisa em sala de aula está indissociável do ensino. Assim, há que criar espaços efetivos no PROEJA para que os estudantes possam lidar com elementos inerentes à pesquisa como o questionamento, a construção de argumentos, a produção escrita e o diálogo.

PALAVRAS-CHAVE: Pesquisa. Educação de Jovens e Adultos. Ensino.

La investigación como principio pedagógico en el contexto de PROEJA

RESUMEN

Este estudio tiene como objetivo comprender los fundamentos que guían a los Institutos Federales de Educación, Ciencia y Tecnología (IF), a fin de comprender las bases conceptuales de la investigación como principio pedagógico en el contexto del Programa para la Integración de la Educación Profesional a la Escuela Secundaria en la Modalidad de Educación de jóvenes y adultos (PROEJA). Se caracteriza por ser una investigación exploratoria y descriptiva, basada en una perspectiva cualitativa y dialéctica y en la técnica bibliográfica. Está organizado en 02 (dos) secciones: a) aborda las bases conceptuales de la FI, enfatizando la investigación como un principio pedagógico; b) presenta el análisis de un relato de experiencia docente con investigación en el contexto de PROEJA. Se concluye que la investigación en el aula es inseparable de la enseñanza. Por lo tanto, es necesario crear espacios efectivos en PROEJA para que los estudiantes puedan lidiar con elementos inherentes a la investigación, como el cuestionamiento, la construcción de argumentos, la producción escrita y el diálogo.

PALABRAS CLAVE: Buscar. Educación de jóvenes y adultos. Enseñando.

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Introdução

The Program for the Integration of Professional Education to High School in the Modality of Youth and Adult Education (PROEJA) is one of the initiatives implemented in contemporary life focused on professional education. PROEJA, as a Brazilian educational program, was established by Decree No. 5.478 (BRASIL, 2005) and expanded by Decree No. 5.840 (BRASIL, 2006), attempts to integrate professional education with basic education in the modality of Youth and Adult Education (EJA).

PROEJA aims to provide quality education and raise the schooling of students[5] who present social, economic, cultural and cognitive vulnerabilities in social inclusion processes. It also aims to overcome the duality of manual and intellectual work alienating, from a creative perspective.

> [...] this program has a differentiated proposal, aiming at the curricular integration in the EJA, the formation of a citizen more aware and critical of its reality, the valorization, recognition and inclusion of the modality of young people and adults in diverse educational institutions and the construction of an identity of the student workers who seek differentiated training to enter, to remain or advance in the world of work (MORAIS, 2015, p. 20, translation our).

However, to account for these objectives, it is important to think about educational practices for Professional and Technological Education (EPT) (CASTAMAN et al., 2019, CASTAMAN; BORTOLI, 2020) that comprise teaching[6] strategies (ANASTASIOU; ALVES, 2015) that favor the permanence and construction of learning by students. In view of the above and an experience carried out at PROEJA, of the Federal Institute of

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[5] It is emphasized that the EJA and Professional and Technological Education are teaching modalities historically aimed at workers.

[6] Anastasiou and Alves (2015) describe, 20 teaching strategies: dialogued exhibition class, text study, portfolio, brain storm, conceptual map, directed study, discussion list by computerized means, problem solving, phillips 66, verbalization and observation group (GV/GO), role-playing, seminar, case study, simulated jury, symposium, panel, forum, workshop (laboratory or workshop), study of the environment and teaching with research.

Education, Science and Technology of Rio Grande do Sul (IFRS) - Campus Sertão, the teaching strategy with research at EPT (VIEIRA et al., 2019) was used as the basis for the students' integral training process. It is understood that from research one can build one.

> [...] self-sufficient, critical and self-critical historical subject, participant, able to react against the object situation and not cultivate others as an object [...] research as dialogue is an everyday process, part of the rhythm of life, product and reason for social interests in confrontation, the basis of learning that does not restrict mere reproduction; in the simplest sense, it can mean knowing, knowing, informing oneself to survive, to face life consciously (DEMO, 2011, p. 43, translation our).

It is known the challenges of acting in PROEJA (FRANZOI et al., 2010), but it is believed that under the above conditions, that is, from contents focused on social and research practice, it is possible to approach the students of the understanding of totality, in search of a polytechnic, full and integral formation. Polytechnics here understood as "[...] an education that enables the understanding of the scientific-technological and historical principles of modern production, in order to guide students to make multiple choices" (RAMOS, 2008, p. 3, translation our). That is, an integral formation that mobilizes the student to critically analyze reality, by the dialecticof each concrete situation.

Thus, this study aims to know the foundations that guide the Federal Institutes of Education, Science and Technology, in order to understand the conceptual bases of research as a pedagogical principle in the context of PROEJA. It is characterized as exploratory and descriptive research, based on a qualitative and dialectical perspective. As a technique, he had the bibliographic that founded and guided the work. Bibliographic research is "[...] developed on the basis of material already prepared, consisting mainly of books and scientific articles" (GIL, 2002, p. 44, translation our). To know about the conceptual bases that guide IF

and about research as a pedagogical principle, it is verified in Veiga, Resende and Fonseca (2000), Demo (2001, 2015), Lima and Grillo (2008), Martins (2009), Pacheco (2010, 2020), Moraes, Galiazzi and Ramos (2012), Rehfeld (2013), Anastasiou and Alves (2015), Castaman and Hannecker (2017) and regulatory documents such as Brazil (2008, 2012, 2015). To present the discussion and analysis of the report of the research experience in the context of PROEJA, it is based on Freire (1987, 2013), Pernambuco (2002), Chassot (2003), Haidt (2003), Veiga (2006), Brousseau (2008), Lima and Grillo (2008), Ramos (2010), Thiollent (2011), Cruz and Szymanski (2012), Moll (2012), Rehfeld (2012), Ambrose (2013), Anastasiou and Alves (2015), Coutinho and Moraes (2015), Demo (2015), Vieira et al. (2019) and in PROEJA documents: Brazil (2006, 2007, 2015), IFRS (2011, 2012, 2018) and Castaman (2020).

The structuring of this work is organized in 02 (two) sections: a) addresses the conceptual bases of the Federal Institutes of Education, Science and Technology, emphasizing research as a pedagogical principle; b) presents an experience report of the research as a pedagogical principle in the context of PROEJA. Finally, the final considerations of this study are disputed.

The Federal Institutes of Education, Science and Technology and research as a pedagogical principle

Despite a centuries-old history of the Federal Network of Professional, Scientific and Technological Education, the Federal Institutes of Education, Science and Technology (IF) were implemented from Law No. 11.892 (BRASIL, 2008). The aim of the IF is to train professionally, in particular, through the provision of professional education integrated to high school, an integrated curriculum (CASTAMAN; HANNECKER, 2017).

> Its objectives are to act in initial education, in high school integrated professional training, in undergraduate, preferably technological and graduate school. However, these different modalities have to dialogue with each other, seeking to

> establish formative itineraries, making it possible to reduce the barriers between levels and modalities, which hinder the continuity of the training of students, especially those from the working and excluded classes. They advocate working with territories and populations with social vulnerability aiming to integrate them into citizenship and development processes with inclusion (PACHECO, 2020, p. 07, translation our).

The central objective of integrated education "[...] it is not to train a professional for the labor market, but rather a citizen for the world of work, which could be both technical, as a philosopher, a writer or all that" (PACHECO, 2010, p. 07, translation our). Thus, it has as educational principles: integral human formation, work as an educational principle, social practice as a source of knowledge, the indissociability between all dimensions of the educational process: teaching, research and extension (PACHECO, 2020) and research as a pedagogical presupposition[7]. In this scope, it is dedicated, in this research, to explore research as a pedagogical presupposition.

According to Demo (2015), digital media have allowed increasing contact with books, libraries and databases, which facilitates access to knowledge, and this is increasingly decentralized. Thus, the author stresses that research can be characterized as a didactic and investigative method to achieve intellectual autonomy and act as a subject capable of thinking for himself and (re)constructing knowledge.

Martins (2009, p. 39, translation our) alludes to the that the work with research allows the student to stop being "[...] repeater of content scans and start acting and reflecting critically on the facts studied". It implies a project that aims to effect the student's role in the process of knowledge construction and to lead this role also in work environments and other spaces of social interaction. Veiga, Resende and Fonseca (2000, p. 185-186, translation our) reinforce that,

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[7] In this study, research is admitted as an Educational Principle and Research as a Pedagogical Principle as synonyms.

> [...] The great emphasis on the research seems to be based on the understanding that the production of knowledge is a social process, which is part of problems experienced by society that, once worked by the researcher, become problems and questions to be answered in a shared way, and then return to society.

With regard to Professional and Technological Education (EPT), teaching guiding documents, such as the National Curriculum Guidelines for Technical Professional Education of Secondary Level (BRASIL, 2012) and the Common National Curriculum Base (BNCC) (BRASIL, 2015) expanded the conception in research as a pedagogical principle, recognizing that educating by research is a teaching practice considered a necessary premise in the current context. The Guidelines (BRASIL, 2012) qualify research as a pedagogical principle, oriented and mediated by teachers, which refers to it as a guiding principle to integrate specific knowledge to the production of knowledge and social intervention.

Research as a pedagogical principle requires critical and creative dialogue with reality, aims to transpose its scope to the broader social context and is characterized as a constant practice of "learning to learn" (DEMO, 2001, translation our) that should permeate educational practice. According to Rehfeld (2013, p. 06, translation our), research as a pedagogical principle refers to a condition for "[...] intellectual autonomy. Through which teachers and students, in the convergence of thinking, seek answers to problems, situations that permeate the social, cultural, economic and political context". Moraes, Galiazzi and Ramos (2012, p. 10, translation our) corroborate that

> Classroom research is one of the ways to involve the subjects, students and teachers, in a process of questioning the discourse, of the implicit and explicit truths in the discursive formations, providing from this the construction of arguments that lead to new truths. Classroom research can represent one of the ways to influence the flow of the river. To be involved in this process is to believe that reality is not ready, but that it is constituted from a human construction.

Valer, Brognoli and Lima (2017, p. 2787, translation our) emphasize that research as a pedagogical principle is intended "[...] develop cognitive skills in students to interpret theories, relate, analyze, criticize, reflect, reject closed ideas, learn, seek solutions, propose alternatives, etc. [...]". Anastasiou and Alves (2015) point out that teaching with research offers conditions for students to acquire autonomy, take responsibility, develop discipline and the ability to maintain the necessary time in the search for problem solving until information is exhausted, being guided by the teacher. Demo (2015, p. 05, translation our) proposes that when educating by research one should consider four assumptions, i.e.,

> - the conviction that education by research is the most specific specificity of school education,
> - the recognition that reconstructive questioning with formal and political quality is at the heart of the research process,
> - the need to make research a daily attitude in teachers and students, - and the notion of education as a process of formation of human historical competence.

For Anastasiou and Alves (2015), some principles are relevant: the content is taken as provisional, dated and research result; new studies can reformulate the existing one with new perspectives. The criteria for knowledge validation are: probability, plausibility, demonstration, logical and empirical evidence. Lima and Grillo (2008) have some principles inherent to the act of research, which are: questioning, argument construction, written production and permanent dialogue between everyday situations and school/academic content.

Viera et al. (2019) mark that in EPT, research should be seen as an activity that allows to scientifically construct a problem that is under the focus of analysis, raise hypotheses, argue and elaborate theories and, in addition, awaken creativity.

> Thus, rigor is as well as for research and teaching, also seen as a creative and innovative process, a space for reflection, criticism and the formulation of (new) proposals, in order to achieve quality EPT, but with a deep social and humanist meaning (VIEIRA et al., 2019, p. 285, translation our).

Thus, dissociating/articulating/imbrillating research in teaching as a social and integrative practice leads to the reformulation of the logic of traditional teaching, deepening in other possibilities of teaching and learning. From this presentation, the next section approaches the report of research experience as a pedagogical principle in the context of PROEJA, in an IF.

PROEJA: a report of research experience as a pedagogical principle

PROEJA, established as a Brazilian educational program by Decree No. 5.840[8] (BRASIL, 2006), for all spheres of education, whether state, municipal or federal, emerged as an attempt to integrate professional education to basic education in the modality of EJA, based on an integral education. For Ramos (2010), the understanding of integration is broad. However, it manifests a conception of human formation that prioritizes all dimensions of life, culture, science and work. The author emphasizes that the horizon of this formation is the polytechnic and omnilaterality of workers, having as premise allow the understanding of social relations and the historical and contradictory process of the development of productive forces. Therefore, through these conceptual bases, it is understood a possible formation of professional-citizens capable of conceiving and acting in reality. PROEJA is a public policy aimed at

> [...] an integrated formation of the citizen, which consists not only in the absorption of scientific and professional knowledge, but a knowledge for life, for his personal construction as a social being that transforms and

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[8] This Decree derives from an extension of Decree 5.478 (BRASIL, 2005), which created the Program, but limited its extension to the scope of federal institutions of technological education and the medium level.

transforms the society in which he is inserted (COUTINHO; MORAES, 2005, p. 73, translation our).

That said, regulatory documents and educational practices of EPT federal institutions need to integrate these training elements. Proeja's conceptions and guidelines in IFRS are based on integral and omnilateral training, in addition to offering 10% of enrollment in courses in the PROEJA modality (IFRS, 2018). IFRS assumes a humanizing character in this course, in order to provide

> [...] to the young and the adult access to the historical production of humanity and to professional training that allows them to understand and act in the world in the search to improve it, PROEJA proposes a training that enables the subject to insert himself in different ways in the world of work, including generating employment and income, without abandoning aspects of his life, such as religiosity, the family, social, political and cultural participation, constituting a continuous action in the public school system.
> Articulating schooling and work, in the context of PROEJA, has a sense of broadening horizons, promoting reflection on the work process, improving interpersonal relationships, developing collectivity awareness, possibility of intervention in reality and improvement of quality of life.
> [...] seeks to provide conditions for all citizens to have access, permanence and success in public basic education, free and quality. Youth and Adult Education is a teaching modality with specific characteristics and this requires investment in teacher education so that they can understand and better meet all issues related to the theoretical field that articulates professional education and basic education in the modality of youth and adult education. Since this is a differentiated public, which requires pedagogical practices of awareness and transformation of reality, it is essential that the teaching actions value the learning trajectories of the students, focusing on the quality of the processes.
> [...] has guaranteed students-workers [...] social inclusion and the possibility of continuing studies through a curriculum that values knowledge and promotes a coherent pedagogical practice [...] (IFRS, 2011, p. 43-44, translation our).

In this scope, at IFRS - Campus Sertão, the Technical Course in Commerce is offered annually, since 2012, in the proeja modality. The

night course comprises 2.400 h, in 5 (five) modules of basic and professional training and has the general objective of training professionals, "[...] in line with the demands of the productive sectors and the understanding of reality, from the mediation of the concepts already elaborated, learning to know, learning to be, in a political, social and cultural perspective" (IFRS, 2012, p. 11, translation our).

The curricular unit of "Human Resources and Interpersonal Relations", is included in the first semester and totals a workload of 80 hours. Its purpose is "To provide theoretical and practical basis so that the student can better understand interpersonal relationships in the various environments and to know activities related to the procedures of people management in the organization" (IFRS, 2012, p. 28, translation our), from contents focused on social practice. According to data from the Teaching Plan (CASTAMAN, 2019, translation our), the methodology is supported by

> [...] in the conception of learning cultural historical theory, in a process of interaction, discussion and systematization from theoretical study. Thus, preparatory and complementary readings, discussions of texts and books, research, exhibition-dialogued classes, case studies, individual and collective systematizations will be carried out.

It is based, in general terms, on the Dialectical Mediation Methodology (MMD), in which it is considered,

> [...] in addition to the student's daily knowledge, its development as a historical and social being, [...] centered on the teaching processes (developed by the teacher), learning (developed by the student) and mainly on the relationship between both. Its central axis is pedagogical mediation, the dialectical relationship that is established between teacher and student, understood as social beings that develop the class and, in it, develop (CRUZ; SZYMANSKI, 2012, p. 456, translation our).

Thus, one has to "[...] ensure learning and reinvent the way of organizing the times, spaces and logics that preside over school processes, overcoming the discursive and abstract character, predominant in school practices" (MOLL, 2012, p. 133, translation our). Therefore, one of the main teaching strategies employed was research as a pedagogical principle, since it is understood that the student/worker needs to be stimulated to scientific education, so that in an integrated way, he can establish relationships between practical reality and scientific concepts mediated in the classroom. Chassot (2003) understands that scientific education is considered one of the essential skills of the 21st century, that is, fundamental for the full development of the student, both in the context of cognitive performances and in the preparation of citizenship. Thus, by learning to read reality, the student can achieve emancipation.

By assuming as a premise research as a pedagogical principle for teaching, one can promote scientific education in EPT. Thus, students will be able to (de)build knowledge, and their authorship is the sine qua non condition for learning it, to relate scientific knowledge with concrete reality. Freire (2013, p. 30-31, translation our) reinforces:

> There is no teaching without research and research without teaching. These what-dos are in each other's bodies. While i continuously teaching searching, reseeking. I teach because I seek, because I asked, because I ask and wonder. I research to verify, verify, intervene, intervene, educate and educate myself. I research to know and what I do not know and communicate or announce the news.

Teaching with research in the Curricular Unit was used in numerous activities. Vieira et al. (2019, p. 287, translation our) explain that "there are different ways of working the articulation between teaching and research in EPT". It is known that BNCC (BRASIL, 2015) suggests that the student register the course of a research work through a scientific report and produce texts of dissemination of knowledge as articles. However, in this

educational action, due to the profile of the class[9], the registration materialized in the construction of an academic work named as Portfolio. According to Anastasiou and Alves (2015, p. 19, translation our), "[...] the portfolio is presented as the most complete: it provides the teacher to immediately check the difficulties that the student may be presenting and propose solutions for its overcoming".

The portfolio activity was developed from the first to the last class of the Curricular Unit and also consisted as one of the evaluation instruments, based on the following criteria, as suggested by Anastasiou and Alves (2015): organization and scientificity of the teacher and student action; clarity of ideas in written production; construction and reconstruction of writing; objectivity in the presentation of basic concepts; engagement and commitment to learning. Ambrose (2013) alludes to that evaluating learning by portfolio transforms pedagogical relationships, because it minimizes the marks of an ansiogenic evaluation.

To this end, he gave himself at the beginning of the semester, to students, notebooks, sheets, folders, among other materials, so that each one could build his Portfolio manually. It was instructed to write individually concepts, procedures, attitudes and reflect on them; drafts, because it presents an overview of the efforts, development and growth of the action. In addition, it was recommended that they include photos and/or drawings that represented how each theme was tied in their lives and how these illustrations could contribute to social transformation. Freire (1987) admits that it is necessary to start from the reality of the students, proposing themes that generate research, bringing the daily life and the actuality of the subjects.

In addition, there were readings directed in the classroom and research in books and periodicals in the school library, participation in

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[9] These are 25 young people and adults - students/workers, most of them in situations of vulnerability. Many do not have a computer or have never accessed it. Furthermore, it is emphasized that, around 60% of the class, stopped school when young and returned to complete years later. This characterization hinders a formal final report, as indicated for the demonstration of the results of the research. However, it was inspired by research and research practices, as well as promoting curiosity, and the formal report was linked to a work that portrayed the subjectivities and advances and challenges of each one in the construction of their knowledge.

exhibition-dialogued classes and, numerous times, the students were taken to the Computer Laboratory of IFRS - Campus Sertão so that, from the digital environment, they could conduct bibliographic research on relevant subjects, which they would add to the construction of the Portfolio. The students collected data, explored, questioned, analyzed, compared, criticized, evaluated, synthesized, argued from content made available in databases, newspaper sites, periodicals, blogs, among others.

The research work in the Computer Laboratory was carried out individually, with one student per computer, and/or collaboratively, according to the degree of difficulty of each student's access to the available tools. The dynamics developed in the Laboratory promoted a cooperative and supportive environment, which optimized individual work and made each student not feel left unforsated by their difficulties. Some information collected was copied and saved on a pen drive and others were annotated and transcribed in the student's notebook for later use. Demo (2015) states that when the student becomes the protagonist of his research, he ends up being independent about his choices and not just a copier.

To report one of the researches undertaken, a concrete situation related to human resources was presented, that is, conflict between colleagues in the work environment. For Brousseau (2008, p. 20, translation our), a learning situation implies:

> [...] a model of interaction of a subject with a given medium. The resource available to that subject to achieve or maintain a favourable state in that environment is a range of decisions that depend on the employment of precise knowledge. We consider the "medium" as an autonomous subsystem, antagonistic to the subject. Thus, when we take as object of study the circumstances that govern the dissemination and acquisition of knowledge, we will be interested in situations.

After jointly defining the object of study and research, each student conducted research to understand the concepts that involved the theme. The research process occurred through some dialogical steps.

Pernambuco (2002) situates them as: reality study (ER), knowledge organization (OC) and application of knowledge (CA).

The problematizing attitude mobilized for curiosity and the study of reality. During the educational action, questions were made about the theme, as a 'call' to conduct the research. Lima and Grillo (2008) reinforce that for the success of the research it is necessary that the professor has clarity of the purpose of the proposal, still, that challenge students from questions and arguments, to research and written production, in order to value school knowledge and the experience of the student. The question is a relevant resource to mediate the student in the process of knowledge construction. Vieira et al. (2019, p. 282, translation our) point out that "The construction of investigative, questioning attitudes is a priority intention of teaching with research".

Moreover, the analysis of the data collected throughout the trajectory of the research was based on the understanding of reality. Thus, it was suggested that each student could make inroads of conjuncture analysis of the phenomenon; examine the impact on relationships within the work environment and on interpersonal relationships; to analyze its influences on human life; identify other developments and, in the end; present possible solutions.

After these activities, it was recommended that the student systematize all the knowledge built in the Portfolio. Finally, a seminar for socialization was organized (HAIDT, 2003), so that students could expose and debate critically and reflexively what they learned and how this knowledge could be applied in their reality. Veiga (2006, p. 106, translation our) reinforces that the seminar is a "scientific, cultural or technological congress", which provides cooperation, sociability, dialogue, reflection and exchange of knowledge and experiences.

> From the set of information processed, the seminar produces material. Part of this material is of a "theoretical" nature (conceptual analysis, etc.), another part is empirical in

nature (surveys, situation analysis, etc.). Another part, still, sometimes elaborated with external collaborators, is the dissemination material, of a didactic or informative nature, intended for the whole population involved in the problems addressed (THIOLLENT, 2011, p. 67-68, translation our).

Throughout the process, topics such as power relations, ethics, responsibility, commitment, leadership, among others, were fostered. In this learning situation, the teacher can be emphasized as a mediator of the process. A subject with broad and significant knowledge that mediates, guides and monitors systematically and attentively and contributes to the student recognizing, understanding and analyzing reality.

> The teacher's mediation is fundamental, because, while the student needs to recognize his or her own authorship in the project, he also needs to feel the presence of the teacher, who listens, questions and guides, aiming to provide the construction of the student's knowledge. Mediation implies the creation of learning situations that allow the student to make necessary corrections, since the contents involved in the project need to be systematized so that students can formalize the knowledge put into action (REHFELD, 2012, p. 29, translation our).

It is notepoint that all frequent students in the Curricular Unit delivered the Portfolio, participated assiduously in the research and presented the seminar, which reflects their motivation in the construction of their knowledge, even in the face of the adversities and vulnerabilities that most of the group of students/workers experience. The Portfolio of each student represented their conditions of reflecting on the proposed subjects and expressed the knowledge (re)constructed, from productions of various complexities. In any case, the participation and authorial construction of each student were considered in the evaluation. Thus, from the systematic observation of the responsible teacher, it was possible to analyze that in view of this path of precise, sequential, rigorous, investigative research and that considers the students' previous and contextual knowledge, it was collaborated in the

promotion of an autonomous, critical and creative training of PROEJA students. The students were able to learn to learn, to problematize, to have analytical and reflective attitudes from their own observations, to instill reality, to actively participate in the construction of their learning and, especially, to understand that knowledge is provisional.

Although a formal evaluation was not carried out with an interview or questionnaire of the contributions of the research activity in the training of students, it was observed that from it, they had a significant advance throughout the semester in the practices of research, reading and writing, as well as in the use of TIC. Furthermore, it was noticed that there was an improvement in communication skills and oral presentation of papers, in dialogue, in the capacity for reflection and promotion of solutions to concrete situations. It is emphasized that the productions developed show the individual and collective growth promoted by the activity, compared to other classes that did not have the development of this proposal.

Another point not deepened in this study, but which deserves to be mentioned refers to interdisciplinarity and integration. Although the educational action was promoted, especially, in the Curricular Unit of Human Resources and Interpersonal Relations, there was the partnership of other curricular components, such as Portuguese Language and Applied Informatics, which contributed with techniques and strategies of reading and writing and with literacy to information and communication technologies (TIC). In basic informatics classes, the teacher addressed the management and use of e-mail and text editing and presentation tools. Furthermore, he emphasized ways to optimize internet searches, through search engines and browsers, which are programs that allow users to interrelate with HTML (HyperText Markup Language) documents. The Portuguese Language Curriculum Unit worked on reading texts and using grammar properly in writing. Thus, each curricular component at the date and time made available by the

course and through the contents of its menus, contributed significantly to the research work, directing the development of activities and enabling a better use of available resources. From the students' point of view, the classes of Basic Informatics and Portuguese Language became more attractive, since the topics addressed in the classes were of interest to them and the knowledge was expanded in an applied way.

In line with the PROEJA base document (BRASIL, 2007), the central idea was to seek ways to overcome the rigid disciplinary matrix and adopt an articulating basis, through a curricular component, which played the integrative role and thematic axes. In other ways, there was a theoretical-practical articulation of an ethical-political character that linked intellectual work to practical and/or experimental activities, thus allowing conditions of emancipation, permanence, success and progression to students and effecting the quality of EPT. Nevertheless, teaching with research will be adopted in all semesters in the Curricular Unit, because it is understood that it humanized the teaching and learning process by considering the contexts, histories and concrete compositions of each student, while promoting the development of skills and attitudes. Perhaps, it can become a nucleating axis of the entire curricular structure, translating the dialogue, elaboration and conceptions of the collective to foster the professional profile described in the Pedagogical Project of Course.

Final considerations

This report was to broaden the debate on the principle of teaching with research in PROEJA. Also, present the curricular integration of "Human Resources and Interpersonal Relations" to the subject's culture and to the world of work, through research as a pedagogical principle.

Classroom research is increasingly inseparable from teaching and is an instrument for socializing the knowledge produced. Thus, it is

necessary to provide and create effective spaces in PROEJA so that students/workers can systematically deal with elements inherent to research such as questioning, argument construction, written production and dialogue.

It was found that through the intervention of this teaching strategy there was the possibility of discussing topics pertinent to the students, so that each one can orient himself in situations-problems questioning, arguing and writing, tied the school contents and reality, in a process that promoters an autonomous, critical and creative formation. It is conceived that it is impossible to promote all the knowledge that students need to solve problem situations, however it is understood that even in the face of difficulties, actions such as this should be proposed, since it is possible to instrumentalize them and develop skills and abilities that allow the problematization and the meeting of some solutions to these situations and/or for application in new events. Thus, the construction of learning happened through the research process, from the valorization of reflexive action and the great challenge was to architect the curricular unit as a learning laboratory, in which students are protagonists and autonomous, under the mediator's view of the teacher.

The results of this experience, which was considered emblematic, mark that it is possible to develop an educational practice that articulates teaching and research, the latter being a catalyst for omnilateral and integral development of students, as well as promoting the integration between school and community. However, it is considered necessary to qualify the teaching work in PROEJA, through initial and continuous training in order to consolidate the access, permanence and formative success of these workers who seek the IF. It is emphasized that it is still necessary to mature research as a pedagogical principle in the context of PROEJA and that educational actions can be strongly enriched, when planned and worked in an interdisciplinary way, from integrative projects.

This activity was carried out only in one class, however, it is intended to develop in subsequent classes and undertake a comparison of them, as well as evaluate the impacts on the training of each student. Although not deepened in this text, due to its limitations, it is also emphasized that this study promotes the opening of reflections on other topics that can be researched in other investigations, such as: interdisciplinarity, integrative projects, teacher training to work in PROEJA, teaching strategies specific to PROEJA, impact on the training of students from their perceptions, among others.

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