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THE BENEFITS OF THE PARTICIPATION OF STUDENTS OF THE LANGUAGE COURSE IN INTERDISCIPLINARY PROGRAMS RELATED TO TECHNOLOGY IN THE CONTEXT OF HIGHER EDUCATION

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ABSTRACT

This article presents the benefits of the participation of undergraduate students in Letters in interdisciplinary programs related to the insertion and instrumentalization of technology in the context of the Federal University of the Southern Border. The work presents definitions of interdisciplinarity and reflections on multidisciplinary practices and technology in the context of higher education from the performance of Letters students in an interdisciplinary program of technology in education. It also presents reflections on the postulates in official documents such as the National Curriculum Parameters (PCNs), the National Common Curricular Base (BNCC), the National Common Base for the initial training of basic education teachers (BNC-Formation) and the National Curriculum Guidelines for the Letters course in order to understand what these guiding documents bring about the thematic nuclei of this work. The initial training of teachers in the area of Letters was related to the technological transformation experienced by the society of the twenty-first century, specifically in the school context, and it was reflected on ways to prepare the future teacher for professional performance in the face of this reality.

Keywords: Interdisciplinarity. Technology. Teacher Training.

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INTRODUCTION

Innovation and technology as educational practices in undergraduate courses are a territory that is still little explored and has become, increasingly, a field of knowledge necessary in the daily life of students and professionals of letters. Given the technological progression we experience and the integrated and diffuse characteristic of knowledge, this new model of communication with multiple sources of information demands a new learning scenario that goes beyond the classroom, with a curriculum that goes beyond disciplinary boundaries (AMEM, 2006). Because of this context, this article aims to demonstrate and discuss the benefits of the participation of students of the Letters course in interdisciplinary programs related to technology in the context of higher education.

Given the need to update the process of training the language student in a broader context and correlated with other areas of knowledge, the debate arises on the use of technology as a tool and innovation (in the global technological conjuncture we live in) as a teaching/work methodology. From this debate, several conflicting opinions emerge about how, when, and where to carry out these updates.

Thus, starting from the hypothesis that the training of the student/professional of Letters should be multifaceted and should encompass several aspects of the practical reality of teaching life, especially taking into account the transformation of the basic education curriculum coming from the National Common Curricular Base (BNCC) and, considering, in particular, the relations of the language (and its teaching) with other areas of knowledge, It is essential to understand the relations between language teaching and interdisciplinary practice.

> Language permeates knowledge and ways of knowing, thinking and ways of thinking, communication and ways of communicating, action and ways of acting. It is the invented wheel, which moves man and is moved by man. A cultural product and production, born by force of social practices, language is human and, like man, stands out for its creative, contradictory, multidimensional, multiple and singular character, at the same time (Parâmetros Curriculares Nacionais - Ensino Médio, 2000, p. 5).

In this way, multidisciplinary projects and programs help in the training of teachers because they place them in situations closer to reality and, in this specific case, provide contact with technology, an element that should be increasingly included in teaching and learning contexts (whether in teacher training or in their professional practice). Although the importance of initiatives of this nature in education is clear, there is still a lot of uncertainty

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about how this insertion would be done. This uncertainty is fueled by several factors, as presented by Thiesen (2008):

> In the educational context, the development of truly interdisciplinary experiences is still incipient, although there is an institutional effort in this direction. It is not difficult to identify the reasons for these limitations; It is enough that we verify the disciplinary and disconnected model of training present in universities, remember the fragmentary way in which school curricula are structured, the functional and rationalist logic that the public power and the private initiative use to organize their technical and teaching staff, the resistance of educators when questioned about the limits, importance and relevance of their discipline and, finally, the demands of some sectors of society that insist on an increasingly utilitarian knowledge (THIESEN, 2008, p. 550).

Therefore, it is clear that there is a need to debate the themes of technological innovation and interdisciplinarity in the context of teacher training, especially the Portuguese language teacher, since language has always mediated and will always mediate human relations and development is inevitable (with varying rhythms, depending on the place or historical moment) to human beings. And development, in turn, is not compartmentalized to a single area of knowledge.

> The new spatiality of the process of learning and teaching and the deterritoriality of the relationships that engender the current world clearly indicate the new path of education in the face of social demands, especially those mediated by technology. In this sense, new ways of teaching and learning emerge that significantly expand the possibilities of inclusion, profoundly altering the models crystallized by the traditional school. In a world with such different relationships and dynamics, education and the ways of teaching and learning should no longer be the same. A teaching process based on the linear and fragmented transmission of bookish information will certainly not be enough (THIESEN, 2008, p. 551).

In order to ascertain the possible relationships that can be established between the topics previously mentioned (interdisciplinary and technological performance in teacher education), this study proposed to analyze and describe the work of the Program for the Expansion and Consolidation of Technologies and Innovation in the Educational Context (PRACTICE), Ordinance No. 610/GR/UFFS/2020, from the Federal University of the Southern Border (UFFS). The discussions and reflections presented in this research are the result of the study of the documents and information disseminated by the Program.

For theoretical foundations, the notes on interdisciplinarity by Japiassu (1976) and Thiesen (2008), information and communication technologies and innovation in the educational context by Barreto (2003), among others, were considered. In addition, the research was also supported by the guidelines of the two main documents that guide teaching in basic education in Brazil, namely, the National Curriculum Parameters (PCN's)

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and the National Common Curriculum Base (BNCC), both with a focus on the *teaching of languages and their technologies in high school*.

Thus, with the purpose of contributing to the theme presented, this article has the following structure: initially, in section 2, the theoretical assumptions of the study are brought (an overview of the two main themes addressed in the work, interdisciplinarity and technology in education, respectively). Soon after, in section 3, the analysis of the main guiding documents of basic education in Brazil, the PCNs and the BNC, is carried out. In section 4, the main aspects of the document of the National Common Base for the initial training of basic education teachers and the Pedagogical Project of the Language Course - Portuguese and Spanish of the Chapecó campus of UFFS are presented, with regard to interdisciplinarity and extension projects. In section 5, the object of study of this work is presented, the PRACTICE program (what is the program, what are its objectives and work methodology, what are the main benefits of the relationship between the student of letters and projects of this mold), in addition to the analysis and discussions of the proposal and, finally, the final considerations of the study are made.

THEORETICAL ASSUMPTIONS

We live in a highly technological world and, due to the COVID-19 pandemic, our daily lives have undergone a digitalization process. The mandatory social distancing resulting from the pandemic has significantly impacted education, forcing a digital advance never seen before.

In the face of the highly changing and technological reality in which we are inserted, it is necessary, and natural, to rethink our educational practices. These questions do not come from today or yesterday, but from a process that has been built since at least the 90s, in Brazil, with the elaboration of initiatives for the insertion of Information and Communication Technologies (ICTs) in education by the Ministry of Education (MEC). At the moment we find ourselves, it is undeniable the growing not only of the debate on the topic, but the real insertion of technology in the classroom (from basic to higher level), as stated by Barreto (2003):

> At the present time, it is possible to affirm that, in the most different spaces, the most diverse texts on education have, in common, some kind of reference to the use of ICT in teaching situations. From traditional classrooms to the most sophisticated learning environments, technologies are a must. However, this presence has been attributed such diverse meanings that disallow singular readings. There seems to be no doubt

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> about a central place attributed to ICT, while there is no consensus as to its delimitation (BARRETO, 2003, p. 274).

It is essential to discuss not only the insertion of technology in teaching, but also its how and where. It is necessary to think about the impact of this need both on the formation of the basic education student, and (and perhaps mainly) on how to train the teacher to act in this scenario. Only in this way, technological modernization will be a path that can be traced for education in the country.

> In the classroom, or in any other learning environment, there are countless relationships that intervene in the process of construction and organization of knowledge. The multiple relationships between teachers, students and objects of study build the work context within which the relationships of meaning are constructed. In this complex work, the interdisciplinary approach brings the subject closer to his broader reality, helps the learners to understand the complex conceptual networks, enables greater meaning and meaning to the learning contents, allowing a more consistent and responsible education (THIESEN, 2008, p. 551).

To support the work, as already mentioned, we used the contributions of authors from various areas of knowledge who dedicated studies to the theme of interdisciplinarity, technology and innovation in the educational context, as well as an analysis of what the guiding documents of education in Brazil bring about the subjects of technology in education, interdisciplinarity and teacher training.

WHAT IS INTERDISCIPLINARITY?

First, in order to define and understand interdisciplinarity, it is necessary to define what is meant by discipline. Starting from a simpler thought, we can say that discipline is basically a compartmentalization of scientific knowledge, which is replicated in the most diverse areas and has a clear autonomy of its borders. In other words, the discipline is the institutionalized organizational structure that negotiates the criteria, characteristics, interests, objectives and ways of studying a certain object (BICALHO; OLIVEIRA, 2011).

Now that we have conceptualized discipline, we can define what interdisciplinarity is. According to Bicalho and Oliveira (2011), interdisciplinarity is the exchange established between scientists from different areas to carry out a project, research or product. We can consider interdisciplinary a project that breaks disciplinary barriers, promoting the exchange of concepts, theories, notions and even vocabulary, in a cooperative scheme from which the individuals involved have the possibility of mastering multiple areas of knowledge

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(BICALHO; OLIVEIRA, 2011). Japiassu, in the book Interdisciplinarity and Pathology of Knowledge, defines:

> We can say that we recognize ourselves in the face of an interdisciplinary enterprise every time it manages to incorporate the results of various specialties, that it borrows certain methodological instruments and techniques from other disciplines, making use of the conceptual schemes and analyses that are found in the various branches of knowledge, in order to make them integrate and converge, after they have been compared and judged. Hence we can say that the specific role of interdisciplinary activity consists primarily in building a bridge to connect the boundaries that had previously been established between the disciplines with the precise objective of ensuring that each one has its properly positive character, according to particular ways and with specific results. (JAPIASSU, 1976, p. 75).

The term interdisciplinarity emerged around 1920 and refers primarily to the possibility of the existence of a unity of knowledge. We can observe, since the emergence of what we now know as science, a process of compartmentalization (as already defined earlier in this text). The interdisciplinary proposals, or the interdisciplinary movement, emerges as a response to this division, seeking to correlate different areas of knowledge, seeking to solve problems of everyday life, thus trying to de-alienate science, reducing the distance between research (the university) and society. Primarily, life is interdisciplinary. The exchange of knowledge is a reality and interdisciplinarity exists mainly as a practice.

> Therefore, interdisciplinarity is an important movement of articulation between teaching and learning. Understood as a theoretical formulation and assumed as an attitude, it has the potential to help educators and schools in the resignification of pedagogical work in terms of curriculum, methods, contents, evaluation and in the forms of organization of environments for learning. (THIESEN, 2008, p. 553).

As it was possible to observe, the discussion about the insertion of interdisciplinary practices in education (both basic and higher) is extremely important. Interdisciplinarity must be present in our daily educational practices to a lesser or greater degree and it is intended to present, in the course of this study, when and how they can be executed. To begin the visualization of this image, we will analyze below what the BNCC and the PCNs present regarding this and other issues relevant to our discussion.

THE GUIDING DOCUMENTS OF BASIC EDUCATION

When seeking to establish relationships between the practices carried out in the undergraduate course in letters with the professional future, arising from this training in question, we inevitably need to analyze the government documents that guide teaching

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practices in the country. It would be possible to develop numerous works just dealing with one of these documents, however, for reasons of delimitation of this work, we opted for the following cut: the sections referring to languages and their technologies at the high school level were specifically analyzed, both in the PCNs and in the BNCC.

NATIONAL CURRICULUM PARAMETERS

The National Curriculum Parameters were elaborated with two main purposes, namely: i) to disseminate the principles of curricular reform and ii) to guide the teacher in the search for new approaches and technologies. In this way, it becomes more possible to seek the construction of school knowledge through interdisciplinarity and not just the compartmentalization of knowledge, as had been done in Brazil. The document reinforces the need to invest in teacher training, in a qualitative way, incorporating modern technological instruments. The growing presence of science and technology in everyday life should have an impact on basic education.

Increasingly, the desirable skills for full human development are those aimed at the insertion of the individual in the production process. It is increasingly necessary to break with traditional teaching models, focused on memorizing information, and to focus our efforts on building an education model that allows students to develop skills and capacities related to systems thinking, curiosity, teamwork and the search for multiple and creative solutions to solve problems.

The parameters regarding the teaching of languages and their technologies in high school are quite clear with regard to: i) interdisciplinarity of language teaching/study and ii) interaction with technology in the school context. According to the document, it is up to teachers to understand the transdisciplinary nature of language both as an object of study and its use from a didactic perspective (BRASIL, 1999).

The PCNs present competencies focused on what students are expected to be able to accomplish or understand for each level of education. In the competencies related to the area of Languages, Codes and their Technologies, referring to the high school period, we list the most relevant competencies for our discussion:

> Understand the principles of communication and information technologies, associate them with scientific knowledge, the languages that support them and the problems they are supposed to solve. (BRASIL, 1999, p.11).

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It is necessary to understand the technological tools of information and communication, as well as to be able to use them to your advantage in solving personal, social or political problems.

> Understand the impact of communication and information technologies on their lives, production processes, knowledge development and social life. (BRASIL, 1999, p.12).

It is up to the school to democratize access to and use of technology in the lives of students, as well as to clarify the relationships between technology and the social processes of the modern world. According to the document, "[...] apply communication and information technologies at school, at work and in other contexts relevant to their lives." (BRASIL, 1999, p. 12).

In other words, it is up to the school to provide opportunities to use technologies for the study and resolution of problem situations both in the learning environment and in "real life". It is assumed that daily life is permeated by digital life, therefore, living with and using technology in the educational context is not only a will, but a social right.

In view of what is presented by the PCNs, it is necessary to look at the training of teachers, since they are the professionals responsible for creating bridges and guiding students in their education and training processes in these members of the intricate and technological society in which we are inserted. Next, we will discuss the notes established by the BNCC regarding the themes discussed in this work.

NATIONAL COMMON CURRICULUM BASE

The National Common Curricular Base (BNCC) was designed with the objective of restructuring the curricula of Brazilian schools, rethinking education in an integrated and polytechnic way, mobilizing theoretical and technical knowledge and educational processes that aim at the formation of individuals more prepared for contemporary society instead of training directed solely to technical knowledge aimed at work (MORAES, 2020).

The BNCC is a document designed to guide and contribute to the alignment of educational actions and policies, in addition to assisting in the development of curricula at all levels (federal, state and municipal) of basic education in Brazil. The document considers ten general competencies that would be the essential learning common to all students. Among the ten, competencies 4 were considered for the development of this work:

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> Use different languages – verbal (oral or visual-motor, such as Libras, and written), body, visual, sound and digital – as well as knowledge of artistic, mathematical and scientific languages, to express and share information, experiences, ideas and feelings in different contexts and produce meanings that lead to mutual understanding. (BRASIL, 2018, p. 09).

and competence number 5:

> Understand, use and create digital information and communication technologies in a critical, meaningful, reflective and ethical way in the various social practices (including school ones) to communicate, access and disseminate information, produce knowledge, solve problems and exercise protagonism and authorship in personal and collective life. (BRASIL, 2018, p. 09).

Also in its introductory chapter, the document proposes overcoming the compartmentalization of knowledge, establishing the need to think about education in Brazil in a transversal and interdisciplinary way, focused on the real and contextualized application of knowledge (BRASIL, 2018, p. 15). In addition to the points mentioned above, the BNCC also affirms the Union's commitment to promote the initial and continuing training of teachers, with a special focus on undergraduate curricula, promoting actions that train educators aligned with the postulates of the document.

When dealing specifically with the high school stage, the BNCC reiterates several times that the educational training of young people should be aimed at solving problems of daily life and overcoming community challenges, based on scientific knowledge and innovation, considering an inclusive and diversified training path. The BNCC proposes a curricular organization by training itineraries, that is, different curricular arrangements should be offered to students, according to their relevance to the sociocultural context of the school and also their availability, considering the areas of knowledge: Languages and their Technologies, Mathematics and their Technologies, Natural Sciences and their Technologies, Applied Human and Social Sciences (BRASIL, 2018, p. 469). The areas of knowledge aim to integrate various components of the school curriculum, thus promoting a better understanding of these topics, allowing the appropriation of knowledge by students.

The BNCC, although controversial, brings to light an important proposal: the need to see knowledge, or the construction of knowledge, from an integrated and interdisciplinary perspective. The proposition of areas of knowledge does not necessarily exclude the disciplines that we already know, with their own knowledge and methods, but rather instills the need for integration, exchange of knowledge and strengthening of relations between disciplines, for their better contextualization and understanding. In addition, inevitably, to

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promote cooperative work between teachers of various subjects, from planning to the execution of classes.

Thus, the relationship between the issues discussed in this work is clear: it is necessary, in the course of teacher training, to teach them to make these relationships and work in an integrated way with the rest of the school organism, so that, having this enrichment of their graduation, they can apply these principles and knowledge in their classes.

After looking at the guiding documents of basic education, it is also necessary to pay special attention to the training of teachers, of language professionals, to understand what is expected of this individual during and after their training.

THE UNDERGRADUATE STUDENT IN LETTERS, FUTURE TEACHER

In addition to analyzing the references of basic education, it is necessary, for the completeness of this research, to also study the regulation of higher education. Therefore, in this section, we will analyze some of the main documents that guide the training of graduates in letters, as well as the Pedagogical Project of the Undergraduate Course in Letters: Portuguese and Spanish - Degree of the Federal University of the Southern Border.

BNC-FORMATION

The National Common Base for the initial training of teachers of basic education (hereinafter BNC-Formation), is a document that postulates some guidelines for the training of teachers for basic education. The document was prepared in accordance with the BNCC (already presented in this work) and presents general guidelines regarding the curricular organization, pedagogical foundations, thematic nuclei of the country's teaching degree courses, in addition to defining competencies and skills that the graduate of a teaching degree course should be able to understand and execute. Among the 10 general competencies for the basic education teacher, general competence 2 and 5 challenge our study themes, namely:

> 2. Research, investigate, reflect, perform critical analysis, use creativity and seek technological solutions to select, organize and plan challenging, coherent and meaningful pedagogical practices. (BRASIL, 2019, p. 13).
> 5. Understand, use and create digital information and communication technologies in a critical, meaningful, reflective and ethical way in the various teaching practices, as a pedagogical resource and as a training tool, to communicate, access and disseminate information, produce knowledge, solve problems and enhance learning. (BRASIL, 2019, p. 13).

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Regarding the curricular organization of higher education courses for teacher training, the document has as a guiding principle:

> II - recognition that teacher training requires a set of knowledge, skills, values and attitudes, which are inherently based on practice, which needs to go far beyond the moment of mandatory internship, and must be present, from the beginning of the course, both in the educational and pedagogical contents and in those specific to the area of knowledge to be taught. (BRASIL, 2019, p. 4).

And as pedagogical foundations:

> II - the commitment to innovative methodologies and other formative dynamics that provide the future teacher with meaningful and contextualized learning in a didactic-methodological approach aligned with the BNCC, aiming at the development of autonomy, problem-solving capacity, investigative and creative processes, the exercise of collective and interdisciplinary work, the analysis of the challenges of daily life and in society and the possibilities of their solutions Practices. (BRASIL, 2019, p. 5).

> IV - pedagogical use of digital innovations and languages as a resource for the development, by teachers in training, of skills in tune with those provided for in the BNCC and with the contemporary world. (BRASIL, 2019, p. 5).

The thematic core of the degree courses includes:

> f) basic understanding of digital phenomena and computational thinking, as well as their implications in contemporary teaching-learning processes. (BRASIL, 2019, p. 6).

And as skills:

> V - problem solving, engagement in investigative learning processes, mediation and intervention activities in reality, carrying out projects and collective work, and adopting other strategies that provide practical contact with the world of education and school. (BRASIL, 2019, p. 7).
> VII - experience and learning of methodologies and strategies that develop, in students, creativity and innovation, and diversity should be considered as an enriching resource for learning. (BRASIL, 2019, p. 8).

Therefore, the BNC-Formação as well as the BNCC affirm the commitment of the country's education regulatory bodies to educational practices that are transformative, innovative and that help in the process of emancipation of individuals. Due to these factors, the interdisciplinary experience of undergraduate students in the process of training is so important for their performance as future teachers.

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NATIONAL CURRICULUM GUIDELINES FOR THE LANGUAGE COURSE

Another important document for our analysis is the National Curriculum Guidelines for the Letters course, also prepared by the MEC, which aim to guide basic aspects of the Letters courses in Brazil.

Regarding the profile of the graduate, the document presents the following relevant excerpt to our discussion:

> They must be able to reflect theoretically on language, to make use of new technologies and to understand their professional training as a continuous, autonomous and permanent process. Research and extension, in addition to teaching, must be articulated in this process. (BRASIL, 2001, p. 29).

It also defines the following competencies and skills expected of the graduate:

> The result of the learning process should be the training of professionals who, in addition to the specific consolidated base, are able to act, interdisciplinarily, in related areas. They should also have the ability to solve problems, make decisions, work in teams and communicate within the multidisciplinarity of the various types of knowledge that make up university education in Letters. (BRASIL, 2001, p. 30).

We can observe, in this and other official documents presented in this work, the orientation towards interdisciplinary teaching activity, which is capable of mobilizing their knowledge in order to develop activities together with the school team to create significant learning moments for their students. The teacher must also be able to appropriate the technologies available to create these moments, relating their knowledge to the available technological modernity, thus developing, with students and other teachers, a teaching-learning environment that is coherent with the whole of the society in which we are inserted.

Now, we will analyze the pedagogical project of the Undergraduate Course in Letters: Portuguese and Spanish - Degree of the Federal University of the Southern Border, in order to observe if these principles presented so far are present in the propositions of an undergraduate course in Letters.

PPC OF THE LANGUAGE COURSE – PORTUGUESE AND SPANISH AT THE FEDERAL UNIVERSITY OF THE SOUTHERN BORDER

As defended in the BNCC, in the PCNs, in the BNC-Formação and in the National Curriculum Guidelines for the language course (and already presented earlier in this text), it is essential for the quality of education as a whole that teacher training meets the principles designed for basic education.

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Therefore, it is of significant importance to corroborate the hypothesis raised in this work, to analyze the pedagogical project of a teaching degree course. As we deal with the training of the professional of Letters, we will analyze the Pedagogical Project of the Undergraduate Course in Letters: Portuguese and Spanish - Degree of the Federal University of the Southern Border (PPC).

The latest version of the document, from 2020, presents the following relevant objectives for our discussion:

> c) to provide the integration of contents and curricular components through research and extension activities, enabling critical reflection on linguistic and literary knowledge; [...] h) to lead the student to understand the reality in which he is inserted, so that he can reflect and act on it (later or concomitantly) through the committed and transforming teaching practice; [...] k) to provide opportunities for the mastery of new methodologies and educational technologies for the teaching of the Portuguese language, the Spanish language and their literatures. (UFFS, 2020, p. 36 - 37).

In these objectives we can perceive the commitment not only to the technical-scientific training of the Letters professional, but also to their human and transformative formation. This training comes from a diverse, reflective and integrative process, which encourages and guides the mastery of new teaching methodologies and the use of educational technologies both in subsequent teaching practice and in their own teaching and learning journey.

In the excerpt referring to the profile of the graduate, the Pedagogical Project of the Undergraduate Course in Letters: Portuguese and Spanish – Degree brings the following note:

> Based on the tripod of teaching, research and extension, the graduate in Letters must have a specific consolidated content base and be able to act, interdisciplinarily, as a multiplier of knowledge, in related areas, presenting the ability to solve problems, make decisions, work in a team and communicate in the transdisciplinarity of the various knowledges that make up the university education in Letters, in addition to being active in political action to promote respect for human rights and the constitutive diversity of Brazilian society. (UFFS, 2020, p. 40).

In other words, it is expected that the graduate in Letters is able to act in an interdisciplinary way, working together with the school team, being able to relate knowledge from different areas to promote learning in the exercise of their profession. It is also worth highlighting, considering the nature of a case study of participation in an extracurricular program of this work, the main points of the regulation of complementary activities of the Letters course. First, let's see what the PPC defines as complementary curricular activity:

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> [...] Complementary Curricular Activities are understood as the technical, scientific and cultural curricular enrichment activities that are not part of the pedagogical practices provided for in the mandatory and optional curricular components of the course matrix, as long as they are related to the area of humanistic and professional training of the course. (UFFS, 2020, p. 294).

Secondly, it is also worth analyzing what would be the objectives of the Complementary Curricular Activities (ACCs) in the formation of the student of Letters:

> Art. 1 The Complementary Curricular Activities (ACC) of the Undergraduate Course in Portuguese and Spanish Letters - Degree have the following objectives:
> I. To allow the use of the knowledge acquired by the student through independent studies and practices;
> II. to comply with the principle of flexibility, according to which the student has the opportunity to decide on a part of the curriculum;
> III. To complement the student's education by valuing the extra-class experience. (UFFS, 2020, p. 294).

In other words, in addition to the course matrix itself being committed to the transformation and integration of knowledge, the Letters student is encouraged to participate in projects and programs that also contribute to these ideals independently. In this way, the student provides an even more global education, that is, committed not only to theory, but also to diverse extra-class experiences.

After reading and analyzing the guiding documents, it is necessary to present the "laboratory" used for this work. Given that our objective is to study the positive points of multidisciplinary interaction in the training of the licentiate student in letters, it is essential to understand the object of our case study.

OBJECT OF ANALYSIS: WHAT IS PRACTICE?

The Program for the Expansion and Consolidation of Technologies and Innovation in the Educational Context (PRACTICE) is a program for the insertion of technologies and innovation in the educational context, specifically, in the university context, of the Federal University of the Southern Border.

PRACTICE emerged in 2020 as one of UFFS's initiatives to improve the quality of distance learning due to the COVID-19 pandemic. The program aims to structure environments and train educational agents for the production and mediation of content through technologies based on active methodologies in order to contribute to the promotion of innovation in the teaching-learning process in curricular and extracurricular components of UFFS (ORDINANCE No. 610/GR/UFFS/2020).

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Currently, PRACTICE has already contributed to the realization of several online events, including graduations, lectures, round tables, program launches, workshops, among others. In addition to having already produced 11 booklets on various topics related to education and is launching, almost weekly, tutorial videos on audiovisual production and editing. All of this is aligned with the objectives of the program, which are:

- Map existing technologies that can be used in the teaching and learning processes of UFFS's curricular components;
- Propose the layout and technical and instrumental characteristics of content recording and production environments and blended classes;
- Create and develop digital content, as well as assist in the production of this material by direct demand of teachers and TAES (Administrative Technician in Education);
- Participate more actively in the basic education network and in productive sectors of society through the development of targeted and on-demand content;
- Train teachers and students for telepresence classes.

PRACTICE has a different organization and work style from the traditional structure of a university program, as it has no links with specific undergraduate courses or only one area of knowledge. In addition, it uses agile work methodologies, focused on the delivery of products (or services) to the academic community, acting as an innovation center within the university.

With regard to work planning, PRACTICE has two fronts, namely the production of content and the consumption of content (the structuring of planning can be better analyzed in figure 1). The content production line is focused on the creation of materials and technical support for the creation of educational and/or cultural materials for UFFS professors and employees, with the preparation, revision and layout of textual materials (such as booklets and manuals), audiovisual production and editing as well as the development of websites and applications.

The line of content consumption is focused on the elaboration of proposals and the creation of strategies that aim to facilitate access to the information created or co-created by PRACTICE. One of the best examples we can present of this line of planning is the acquisition of all the necessary resources and the implementation of interactive classrooms at UFFS, an initiative headed by PRACTICE.

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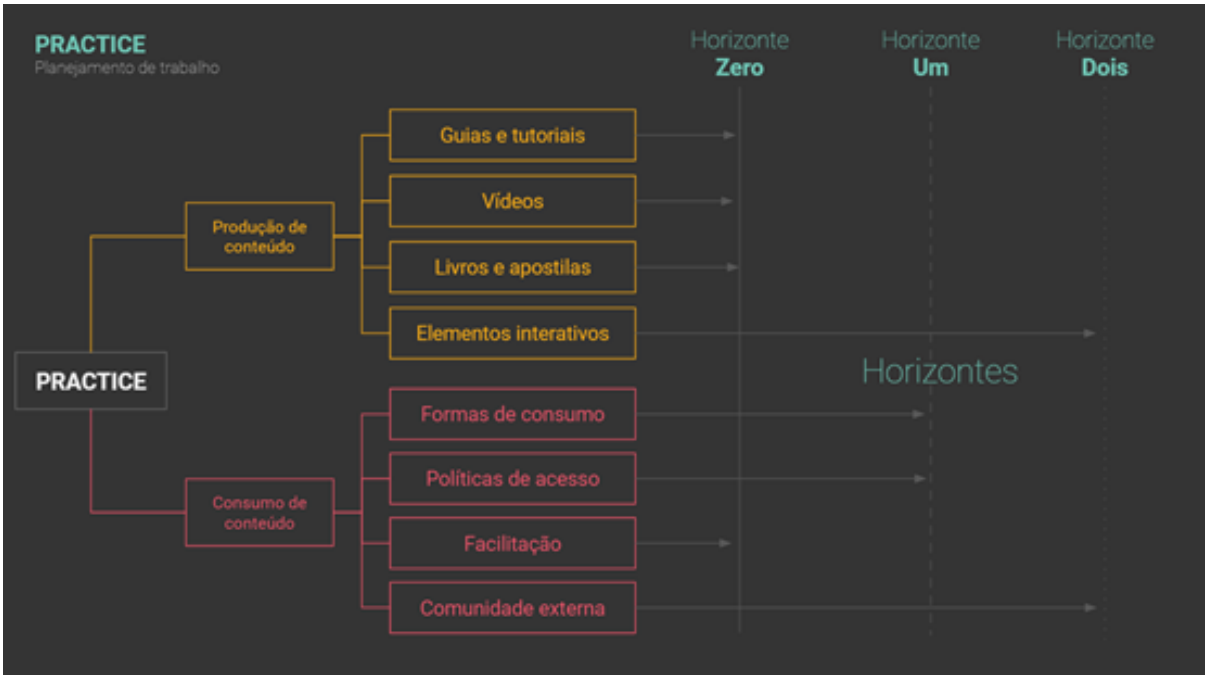
FIGURE 1



Source: PRACTICE official website (2020).

In addition to the planning lines, another differential factor of PRACTICE is the non-hierarchical and empowering work structure. Each of the program's fellows is assigned to one of 5 teams: content, design, media, development, and operational assistance, as illustrated in Figure 2. The distribution in a team considers their characteristics, skills and personal aspirations, at the time of application for the program selection notice. This, however, is not definitive. Fellows are constantly encouraged to work between different teams, sometimes stressing (or developing) new skills that result in changing their original team.

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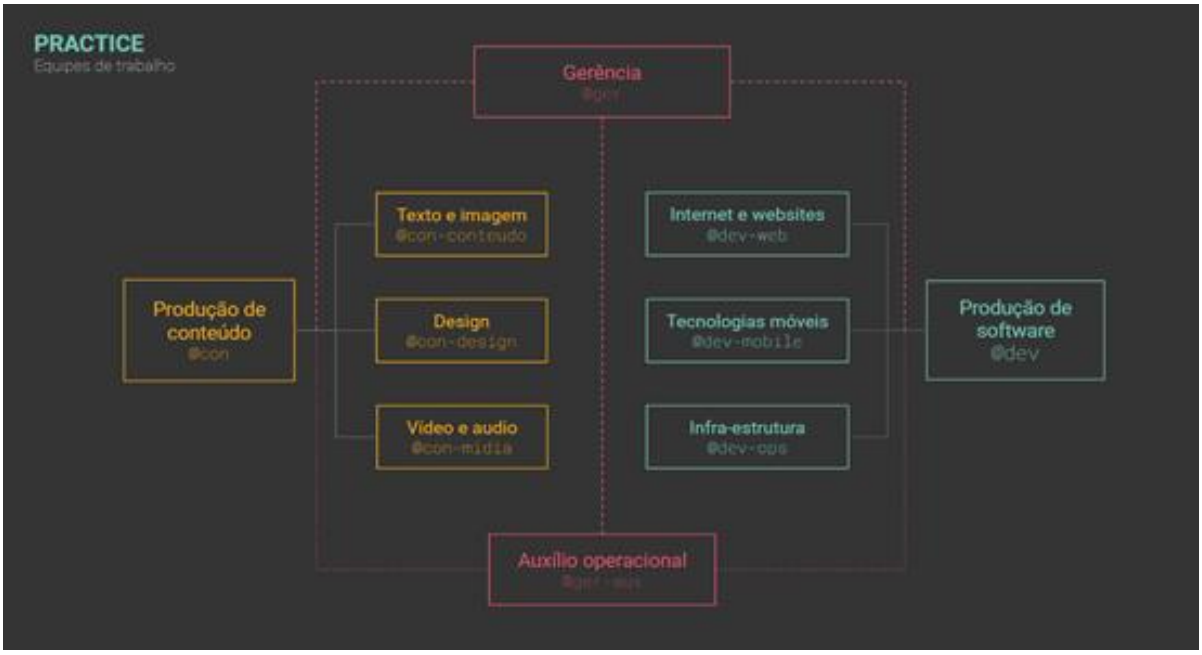
FIGURE 2



Source: PRACTICE official website (2020).

Currently, PRACTICE has more than 20 scholarship holders from the most diverse courses at UFFS (Architecture and Urbanism, Biological Sciences, Computer Science, Environmental and Sanitary Engineering, Aquaculture Engineering, Physics, Geography, Languages, Medicine, Pedagogy and Chemistry), all working in an integrated and interdisciplinary way, producing scripts, booklets, manuals, banners, brochures, videos, podcasts, providing support for videoconferences and developing websites and applications. Mobilizing knowledge acquired at the university and outside it, always with the aim of contributing positively to UFFS. Additionally, fellows constantly present their ideas (in an idea repository), which are discussed in their teams and at the program level. Ideas that have the potential for collective impact on the academic community are promoted to projects, which are executed by all teams.

The organization and method of action employed in PRACTICE may be much more entrepreneurial than traditionally academic, but it has proven to be significantly effective, since the program currently occupies a prominent position at the university, being one of the initiatives of Fronteira 21 (a project that encompassed 21 innovative initiatives in 2021). In addition, since its first year of operation, PRACTICE has already impacted the reality of the entire UFFS community, being the producer of various quality educational content (already mentioned earlier in this text) and being the catalyst for changes in the institution, such as

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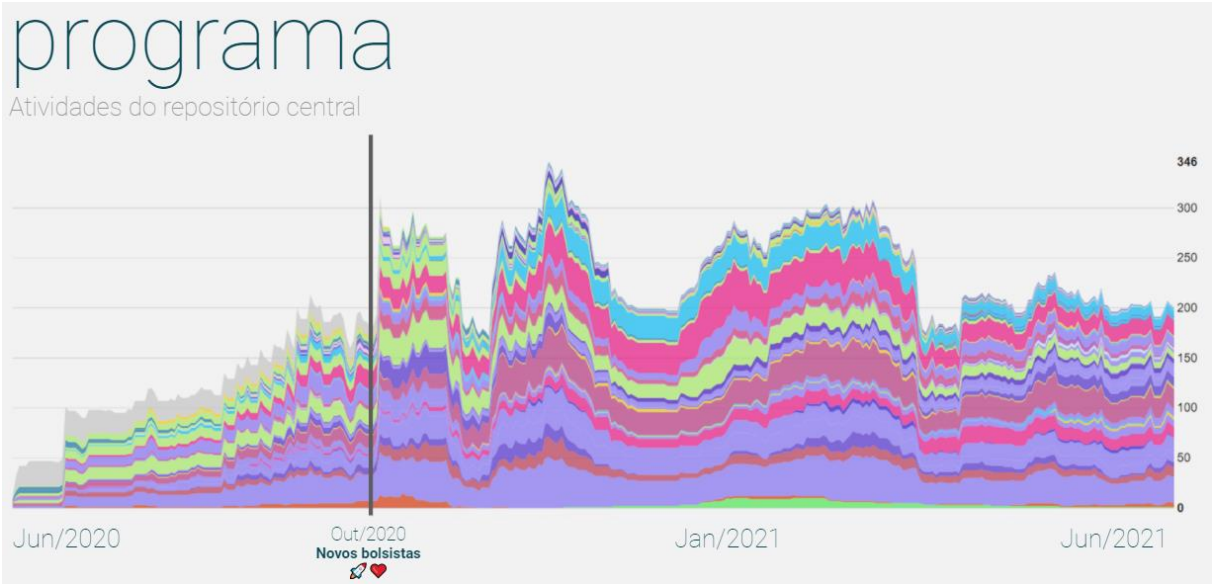
with the installation of interactive classrooms, which will benefit countless students, professors and employees of UFFS.

In its first year of existence, the program completed approximately 1164 tasks, including its own productions and services for professors or UFFS employees. In the following graph, we can see the distribution in months of the tasks created:

GRAPH 1



Source: PRACTICE official website (2021).

Since PRACTICE is a program that is involved with the production of textual materials, the relationship with the degree course in Letters seems quite obvious. Various knowledge about the structure and functioning of the language is mobilized in the elaboration of various products and services made available by the program (such as video scripts, posters, educational booklets, course banners, subtitles and audio description of videos, etc.), but it is not only in the aspect of writing and grammar knowledge that participation in PRACTICE is beneficial to the training of Language students. There is also the didactic-pedagogical aspect that is enriched in this relationship. Students have a unique opportunity to mobilize various teaching methodologies in a space other than a program such as the Pedagogical Residency or the Institutional Program for Teaching Initiation Scholarships (PIBID) or even the mandatory internships of the course. These aspects will be addressed in the following topics.

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PRODUCTION AND REVISION OF TEXTS

We can indicate as a great gain to the training of the licentiate in letters the opportunity to work with the production and revision of non-academic texts. One of the biggest gains because, working in the production and textual revision in PRACTICE, the undergraduate student is inserted in a real production situation, different from a classroom exercise in which the student's only audience is often the teacher. In the case of PRACTICE, the author can think of ways of writing aimed at an audience and deal with real content demands, in addition to dealing with less usual genres not so exercised in undergraduate courses.

In this scenario, it is up to the content team member to think not only about what content to produce, but also how to produce it. It is in this aspect, specifically, that a student of letters has a lot to contribute to the program and to gain from this experience. Teaching yourself and your colleagues to write thinking about an audience, finding good references, building text plans and reviewing these materials, is nothing more than an exercise in textual production.

One of the most interesting aspects provided by this interdisciplinary activity is its interactionist factor. In this context, a text will not be released if it does not go through several stages, by more than one team member, who will contribute to that particular project. As Antunes (1937) says, when considering an interactionist perspective of writing, there is no way to produce without sharing:

> An interactionist view of writing supposes, in this way, encounter, partnership, involvement between subjects, so that the communion of ideas, information and intended intentions occurs. Thus, by this view it is assumed that someone has selected something to be said to someone else, with whom he intended to interact, in view of some objective. (ANTUNES, 1937, p. 45).

The texts produced by the PRACTICE content team have an instructive/educational focus, aimed at students, professors and UFFS employees, and as previously mentioned, vary between manuals, booklets, scripts, etc. This aspect is also very important for the development of writing skills, to have an audience, a purpose, as Antunes (1937) also points out:

> The activity of writing is, then, an interactive activity of expression, (e.g., "out"), of verbal manifestation of ideas, information, beliefs or feelings that we want to share with someone, in order to interact with them in some way. Having something to say is, therefore, a precondition for the success of the activity of writing. There is no

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> linguistic knowledge (lexical or grammatical) that makes up for the deficiency of "not having anything to say". (ANTUNES, 1937, p. 45).

The opportunity to produce these texts favors not only the development and improvement of writing skills, but also provides the development of skills and techniques of "written teaching", that is, from this practice, the student can study the best ways to instruct through written texts, with the benefit of testing the clarity and adherence of these texts with an audience. This contributes to the development of lesson plans, exercises, model texts, tests, correction grids, and everything else that the teacher proposes to produce for his students.

Learning to teach writing can be a complicated task, as it involves not only mastering the grammatical aspects of the language, but also understanding that the writing process is long, multifaceted and complex, which requires the writer, as Antunes (1937) points out:

> Elaborating a written text is a task whose success is not completed simply by the codification of ideas or information, through graphic signs. In other words, producing a written text is not a task that implies only the act of writing. It does not begin, therefore, when we take paper and pencil in our hands. On the contrary, it presupposes several stages, interdependent and intercomplementary, ranging from planning, through writing itself, to the subsequent moment of revision and rewriting. Each stage thus fulfills a specific function, and the final condition of the text will depend on how each of these functions has been respected. (ANTUNES, 2003, p. 54).

Thus, it is possible to see that this experience provided by a multidisciplinary scenario becomes very important because it creates a textual laboratory for the student, in which it is possible to study the process of creation, revision, remodeling and feedback of the texts produced. In this scenario, it is possible to understand the mechanisms of writing in depth, create strategies for this skill to be improved, both in yourself and in your colleagues.

In addition to working with the text mentioned above, other aspects of teaching work can also be exercised in interdisciplinary projects, such as, for example, teamwork and activities in remote format, topics that will be presented below.

REMOTE WORK AND TECHNOLOGICAL EMPOWERMENT

One of the objectives of PRACTICE is to promote the technological empowerment of the academic community, developing technological solutions to teaching problems (with a focus on the remote modality, due to the protective measures arising from the COVID-19 pandemic) or creating means that facilitate the use of existing solutions.

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PRACTICE emerged in the midst of the COVID-19 pandemic and is one of the means of facing the situation by UFFS. The program, in its essence and execution, is focused on remote and multi-campus work and dedicated to creating methods and resources that facilitate remote teaching at the university. In this sense, all members of the program are inserted in a technological environment, through the use of free and open source software tools, fostering the sharing of ideas and knowledge in a transparent and free way.

The insertion of the undergraduate student in letters in this context is beneficial for two main reasons: i) the understanding of how the development of software projects works (in a technological world, this knowledge becomes increasingly fundamental), and ii) the continuous flow of new didactic tools or platforms to produce, edit and transmit classes.

This knowledge is very important for the renewal of the teaching practice (a topic that we will address below), but, first of all, it has become fundamental knowledge for the formation of the socially functional individual. "Knowing how to move" or digital literacy is a set of skills that are indispensable for the individual's relationship with society (FREITAS, 2010).

The experience of remote work, as much as it originated due to UFFS's security measures, is not only beneficial because it provides contact with technology. It also enables the development of independence, self-control, and self-management, creating an environment in which the students involved are responsible for the entire organization of their schedules. Ultimately, this type of work allows the student to see the work process from a completely different perspective.

Another interesting aspect of this type of experience for undergraduate students in Letters is the monitoring of the team's progress, with tasks being developed by more than one team at the same time, mobilizing various communication and negotiation skills, skills that the BNCC requires from teachers and education staff.

In addition to the curricular internship practices, focused on reality and the school routine, in programs such as PRACTICE, undergraduates have the possibility to monitor the development of their team in the long term. In addition to the fact that it is possible to observe this development from different points of view, such as producer, reviewer, coordinator, evaluator and evaluated.

All the technical support work that PRACTICE offers to professors and university employees is designed and executed by the scholarship holders, exclusively. In this way, it

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becomes inevitable to know tools and means of executing the requests made by the "customers", in other words, all participating students need to master the tools in question to be able to deliver quality products and be able to teach the requesters how a certain resource works.

We know that in recent years, especially since the beginning of the coronavirus pandemic, teachers have been forced to reinvent their performance in the classroom due to the increasingly rapid changes in our technological society. In many moments, teachers may have difficulties in inserting these changes in the classroom, or even present some resistance, as Tavares and Scoton (2014) present to us:

> [...] It is identified that the challenge to teachers is a reality imposed since their initial training, in view of the current structure of the teaching degrees. It is not surprising to observe, on the other hand, the reluctance of many teaching colleagues in the face of pedagogical innovation and the use of technologies, even after occasional continued training on the subject. It is questioned to what extent the difficulty in didactic innovation is inserted in a broader context of precariousness of the teaching career and its training. (TAVARES; SCOTON, 2014, p. 500).

In the face of these changes, we can understand that the role of the teacher has also been transforming, therefore, the performance in programs such as PRACTICE, in this aspect, is not only positive, but necessary, for the promotion of interest, curiosity about how this technology operates – we know that more and more generations are more imbricated in technology – and the teacher needs to keep up to date so that his work remains relevant and captivating.

Finally, the independence developed by learning the workings of technological resources is irreplaceable. A graduate student who learns, already in the course of his graduation, the correct ways to find new tools for his work will always be able to keep abreast of the evolution of education technologies.

Finally, the opportunity for the academic of letters (as well as all scholarship holders of programs such as PRACTICE) to play a leading role in the creation of cutting-edge technologies is mentioned. An example is the creation of a PRACTICE virtual assistant, created based on Machine Learning and Natural Language Processing technologies, two Computer Science disciplines. Technologies like this are created through the curation of textual and factual content, used for the training of statistical processing models, which enables academics to experience the practical use of their textual and conceptual knowledge applied, effectively, in the creation of technological solutions.

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WHAT CONTRIBUTIONS CAN LANGUAGE STUDENTS MAKE TO TECHNOLOGICAL INNOVATION PROJECTS AND PROGRAMS?

This work focuses on dealing with the benefits of participating in interdisciplinary programs for undergraduate students in Letters, however, the question arises, what are the positive points, or what are the contributions that these academics can offer to programs such as PRACTICE? In addition to the technical/grammatical aspects of the Portuguese language that must be considered when dealing with the production of textual content, another very important aspect to be raised is the didactic-pedagogical. It is very beneficial, for innovative projects, to have people on their teams who know (or who, in the case of undergraduates, are learning) how to teach. This knowledge is of fundamental importance when we look at the management and evaluation processes of the project team in question. Undergraduate students take time out of their undergraduate courses to learn teaching methodologies and practices that can (and should) be exercised in the technological innovation projects they are willing to work on, because, in the case of programs developed in a university environment by and for students, the teaching-learning relationships should never leave the focus of the practice carried out by the students.

FINAL CONSIDERATIONS

Faced with the need to discuss the integration of technology and interdisciplinarity in teacher training, specifically Portuguese language teachers, due to the frequent transformation of society and the various external factors that question the structures of education in the twenty-first century (such as the coronavirus pandemic), this work had as its theme and objective to present and discuss the benefits for the training of undergraduate students in Letters to participate in programs related to technology in the context of higher education.

From the analysis of the official guiding documents (PCNs, BNCC, BNC-Formação and the National Curriculum Guidelines for the Letters course) and the PPC of the Letters – Portuguese and Spanish course at the Federal University of the Southern Border and the relationships established between the possible practices in the Program for the Expansion and Consolidation of Technologies and Innovation in the Educational Context (PRACTICE), it was possible to demonstrate a path of application of the basic guidelines regarding interdisciplinarity and technological advancement of the documents mentioned above in the undergraduate course in Letters.

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Considering the 3 pillars of the work, interdisciplinarity, technology and teacher training, it was possible to demonstrate that through programs such as PRACTICE, the undergraduate student in Letters, future teacher, can develop a comprehensive and multifaceted training, which takes into account the needs of the new school curriculum, aimed at innovation and integration of the school context with the plural and technological reality of society. The multidisciplinary development of the Letters professional is best forged through an experience and practice where interdisciplinarity is exercised. Better than reading about the interaction between areas (or people), interdisciplinary programs such as PRACTICE at UFFS allow academics to access a truly multifaceted and diverse field of activity.

In addition to the aspects already mentioned, contact with technology in this context also contributes to the development of autonomy, technological independence, a characteristic that has become fundamental for the professional work of teachers in the pandemic moment, but which has already been highlighted in the guiding documents of basic education for a considerable time and will not leave the technical-pedagogical framework of education professionals for a long time.

Through the case study methodology, it was possible to visualize applications for the technical-practical relationship that can be experienced by undergraduates in the context addressed. Enabling the exploration of a different horizon from the mandatory curricular practices 24 of the licentiate courses. Having contact with technological elements (and even helping in their construction) is a unique opportunity to demystify technology, making it a tool as powerful as reading and writing.

Finally, it is important to emphasize that this work reflects a cut, a part of a whole, for reasons of space (article genre). It was not possible to address other aspects of the multidisciplinary experience of PRACTICE. These fields can be addressed in other future works.

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