Lessons Learned in University Extension Projects through the Perspective of Distance Education Students

Abstract

The study investigates “if” and “how” extension projects contribute to learning in real contexts for on-line students from a university in Rio Grande do Sul. The research comes from the debate about knowledge production in extension projects, guided by the interaction between territory, research and curriculum. Its relevance is justified by the challenge presented by curricularization in the context of extension projects in on-line courses, via programs and projects, based on Goal 12, Strategy 7, of Brazil's National Education Plan (2014-2024). Methodologically, the study is characterized by a qualitative-exploratory approach centered on the student experience, via an analysis of assessment instruments pertaining to the 12 public outreach program projects developed between 2017 and 2018. Therefore, this paper is classified as a social study conducted via the phenomenological perspective, looking into the everyday of extension projects in the institution and what the subjects have learned through them. It was concluded that student participation in these programs has significantly contributed to a learning experience connected to territorial demands and potentialities, to the professional profile of the courses involved, and to the nature of the institution. It is worth mentioning that the transversality of the problem situations that guided the aforementioned projects was a relevant factor to transcend the walls of academia; additionally, the action research methodology catalyzed the interaction between academic dimensions and integration with the territory.

Keywords: On-line education. Extension projects. Experience based learning. Extension project curricularization.
Resumo

O estudo investiga “se” e “como” os projetos de extensão contribuem para a construção de aprendizados em contextos reais sob a perspectiva dos acadêmicos dos cursos da modalidade a distância de uma universidade gaúcha. Sua proposição advém do debate acerca da produção de conhecimento na extensão, tendo como fio condutor as articulações com o território, com a pesquisa e com o currículo. Justifica-se sua relevância ante o desafio da curricularização da extensão na modalidade a distância, através de programas e projetos, a partir da estratégia 7 da meta 12 do Plano Nacional de Educação 2014-2024. Quanto aos aspectos metodológicos, o estudo caracteriza-se por uma abordagem qualitativo-exploratória centrada na descrição da experiência dos acadêmicos, através da análise dos instrumentos avaliativos dos 12 (doze) projetos de extensão desenvolvidos no período 2017-2018. Nesse sentido, classifica-se como uma pesquisa social sob enfoque fenomenológico, partindo do cotidiano do fazer extensão na instituição e procurando identificar os aprendizados atribuídos por esses sujeitos. Do percurso investigativo, depreendeu-se que a participação dos acadêmicos nos projetos estudados contribuiu significativamente para a construção de aprendizados conexos às demandas e potencialidades territoriais, ao perfil profissiográfico dos cursos envolvidos e à natureza institucional. Ressalte-se que a transversalidade das situações-problema que orientaram os referidos projetos constituiu fator relevante para a deposição dos muros disciplinares, tal qual a metodologia de pesquisa-ação potencializou a articulação das dimensões acadêmicas e a integração ao território.


1. Introduction

The National Education Plan - PNE (BRAZIL, Law 13.005, 2014), in its Goal 12, intends to expand the academic inclusion of the population stratum from 18 to 24 years old. Among the list of mechanisms defined for raising the average education level of the Brazilian population, strategy 7 defines “ensuring, at least, 10% (ten percent) of the total curricular credits required for graduation in university extension programs and projects, orienting its action, primarily, to areas of great social relevance “. This strategy, on the one hand, corroborates extension as an academic dimension, foreshadowing the epistemic resignification of higher education based on the effective inseparability of teaching-research-extension and on the territorial reconnection of institutions through experiential learning held in / by socio-historical conditions through extension programs and projects. With regard to distance education (EAD), it is conceived that the challenge becomes more complex due to the need for teacher training in extension and the definition of methodologies mediated by ICTs applicable to the development of extension projects; from the articulation of the referred projects to teaching and scientific initiation; the urgent reformulation of the evaluation process applicable to extension programs / projects; the mediation of teacher / student / community with the adoption of an expanded media portfolio that enhances student self-management of knowledge.

The gestation of the present study is, therefore, from the perspective of the researcher’s questions and concerns regarding the historical polysemy of university extension, the challenge of academic and social inclusion of the PNE and the understanding of how (and if) the academic experience in projects can
be a principle and learning process in distance learning. Given the above, the study aims to analyze the relationship between the experience of undergraduate students of distance learning courses in extension projects developed in the period 2017-2018 and their learning, enunciating as an investigative question: how do extension projects contribute to the construction of learning in real contexts from the perspective of students of distance learning courses at a gaucho institution? In order to answer the proposed question, the following objectives were defined:

a) Reflect on the underlying meaning of extension in the National Education Plan;

b) Investigate, through an online assessment instrument, how the distance modality extension projects contributed to the construction of academic and social learning;

c) Identify the learning observed from the perspective of extension students.

2. Extension Projects in Distance Education: ICT-mediated experiential learning

The contradictions verified between the different extension concepts converge to a practice marked by multiple aspects: leisure, access to culture, complementation of university studies, dissemination of research results / promotion of technical-scientific events, literacy of young people and adults, rural extension, curricular internships, occasional services, service to the public in spaces of culture, science and technology, intellectual property activities, carrying out exams and technical reports, legal and judicial assistance, health care, project development, among others. Regarding the legal framework, despite the apparent progress made with the institution of the teaching - research - extension tripod in Art. 207 of the Federal Constitution (BRAZIL, Federal Constitution, 1988) as the foundation of university autonomy, the Law of Guidelines and Bases of National Education (LDB) (BRASIL, Lei 9.394, 1996) postulated an extension practice dissociated from research and teaching activities, transforming it into a provider of assistance services and / or a business desk, through technical consultancies (BOTOMÉ, 1996), commonly referred to as technological or productive extension.

The PNE 2001-2010 (BRASIL, Lei 10.172, 2001), through goals 21 and 23, sought to reverse this logic, aligning the concept of extension to the discussions of the extension forums of public and community institutions, proposing its universalization through the mandatory 10% of the curricular credits required for graduation paid in extension actions. In addition to the efforts made by these forums, the National Forum of Higher Education (FNES), which proposed a “university reform from the inside”, capable of bringing the university closer to society:

Thinking of the academic institution in the 21st century as a space of balance between quality, equity and social relevance implies breaking with the tradition of schools closed in themselves and, also, with the most recent discourse that innovation will occur from the approach with the production sector. A socially committed university is a space for educating citizens in a world of inequality and injustice; for people able to find their place in the labor market and produce, but also responsible for the world and society where they live and committed to the public cause. (MEC, 2009).

In the sense of rethinking the academic institution in the 21st century, the synthesis document of FNES, in the register of table 3 - “Social Commitment and Innovation” -, presents the direction of the discussions toward the reflection of a university model in permanent social interaction, so that their research agendas and academic programs establish new dynamics of relationship with social actors, guided by the
production of knowledge and services in favor of social reality. Specifically in relation to the extension, the referred document registers as pillars for the construction of a socially relevant university:

(i) Creation of policies to meet the demands of specific groups and regions with low social indicators;
(ii) Taking extension as the center of academic policies, redefining lines of research and teaching programs;
(iii) Introduction, in academic formation, of curricular activities with the community and the institution's surroundings, breaking the tradition of classes with “content transmission” that do not stimulate and allow the transposition of concepts and reflection on social reality. It would be the “mandatory social internship” through global and institutional projects (...) (MEC, 2009).

The reorientation of the educational axis proposed by the FNES (extension as the center of academic policies) adheres to the debates promoted by the National Education Council (CNE) for the “[...] construction of models and possibilities for learning, research and innovation in order for the HEIs act with a greater sense of social relevance” (SPELLER; ROBL; MENEGHEL, 2012). Likewise, it is consistent with the Declaration of the Regional Conference on Higher Education (CRES), which highlights the commitment of higher education:

[...] nuestras instituciones deben comprometerse activamente con la transformación social, cultural, política, artística, económica y Tecnológica que es hoy imperiosa e indispensable. Debemos educar a los dirigentes del mañana con conciencia social y con vocación de hermandad latinoamericana. Forjemos comunidades de trabajo donde el anhelo de aprender y la construcción dialógica y crítica del saber entre docentes y estudiantes sea la norma. Construyamos ambientes democráticos de aprendizaje, donde se desenvuelvan las manifestaciones vitales de la personalidad y se expresen sin límites las creaciones artísticas, científicas y tecnológicas (CRES, 2018).

In the same vein, the National Community Engagement Policy (FORPROEX, 2012) established dialogic interaction as guidelines; interdisciplinarity and interprofessionality; the inseparability of teaching-research-extension; the impact on student education; the impact and social transformation, based on the systematization of extension work and the universalization of extension understood as an educational practice that apprehends and problematizes reality, develops solutions and offers relevant contributions to regional transformation and development.

This definition correlates with the concept of experiential education that Camillioni (2013) outlines as a holistic teaching strategy that links academic learning with real life. Deeley (2016), in turn, understands that service-learning is an educational experience that combines community work with academic training, staying connected to the principles of social justice, citizenship, intellectual development and critical thinking. Carbonell (2016, p. 21) interprets it as “[...] an educational project with social potentiality”. According to this author, service-learning follows the sequence: learning + work + project + participation + reflection.

1 [...] our institutions must actively commit to the social, cultural, political, artistic, economical and technological transformation that is imperative and indispensable today. We must educate the leaders of tomorrow with social awaresnesses and a vocation towards latin-american fraternity. Let’s forge work communities where the desire to learn and the dialogic and critical construction of knowledge between educators and students is the norm. Let’s build democratic learning environments where vital manifestations of personalities are developed and artistic, scientific and technological creations are expressed (CRES, 2018).
Extension's conceptual evolution, as seen in the chronology of the letters from the Forum of Extension Deans of Public Institutions of Higher Education in Brazil (FORPROEX) and the National Forum of Community Action and Extension of Universities and Community HEIs (FOREXT), and in National Extension Program Policy, is materialized in the statement of the PNE 2014-2024 under the configuration of extension as an instrument of academic-social inclusion, in the form of programs, as an organic set of projects and other continuous actions integrated with research and teaching, with due regard for their integration into the territory, as well as its educational, social, cultural and technological character. The journey undertaken resulted in the conception of extension as a locus for the production and application of knowledge in conjunction with teaching and research, in accordance with the National Council of Education's Resolution No.7, from December 18, 2018, which regulates the provision in Goal 12.7 of the PNE:

Art. 3º A Extensão na Educação Superior Brasileira é a atividade que se integra à matriz curricular e à organização da pesquisa, constituindo-se em processo interdisciplinar, político educacional, cultural, científico, tecnológico, que promove a interação transformadora entre as instituições de ensino superior e os outros setores da sociedade, por meio da produção e da aplicação do conhecimento, em articulação permanente com o ensino e a pesquisa.  

In this context, the reinvention of higher education in the distance modality, based on the inseparability in teaching-research-extension, presupposes the development of experiential approaches from the perspective of a critical-reflective practice that involves the identification of real needs and/or problems, the theoretical context and projections of feasible solutions, the delimitation of priorities, the development of the solutions designed and their implementation. The epistemological basis for this proposition is based on the study of authors such as John Dewey, Lev Vygotsky and Paulo Freire. It starts, therefore, from the understanding that the learning process results from the construction of meanings by students in their own realities, which takes place through the social world and our interactions with it, and that we learn from each other, in dialogue with our socio-historical context. The three authors mentioned understand that knowledge is supported by social processes, the result of a reciprocal relationship between learners and their surroundings, guided by their previous experiences and by their critical curiosity.

The subjects assume the position of knowledge producers, learning through their own transforming action. Reflective practice is essential to learn from experience, configuring itself as a learning cycle that includes critical thinking and critical action. Thus, within this theoretical framework, the precepts of critical pedagogies are revealed, active methodologies coupled with problem-based learning / projects, teacher mediation, interdisciplinarity, collective intelligence, awareness and social transformation, connectivism learning. A disruption with the traditional model of “teaching” based on the institutionalization of collaborative and cooperative learning processes that bring academics closer to reality, whether that be social or professional life, is proposed.

Moura and Barbosa (2018) assert that project-based activities are increasingly present in all sectors of human activity, with projects being understood as an organic set of activities, with a limited term, guided by specific objectives. The present study adopted the concept of work (or learning) projects developed by students under teacher guidance from the methodology or pedagogy of projects, considering the concept of an extension project expressed by the Ministry of Education: “A set of procedural actions

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2 Art.3. In Brazilian Higher Education, extension is the activity that integrates to the curriculum and organization of research, consisting of an interdisciplinary, political-educational, cultural, scientific, technological process that promotes transformative interaction between higher education institutions and the other sectors of society via the production and application of knowledge, in permanent articulation with teaching and research

3 Which attribute a special kind of protagonism to the subject as an agent of change and social transformation. In this study, Paulo Freire and Vygotsky are the references in critical pedagogies.
continuous, of an educational, social, cultural or technological character, with a specific objective and determined term “(MEC / SESU, 2014). In the methodology of learning projects, the student is conceived as an agent-author when formulating his own research questions based on his previous knowledge and systems of meaning (FAGUNDES et al., 1999). The interlocutions are extended to different spaces and groups, and the assembly lines of the Taylorism in teaching / instruction concept are overcome. Therefore, education is conceived as an act of intervention in the world (FREIRE, 2003) and the systematization of the experience lived in educational projects as the integration of formal learning into the daily experiences of the environment, through the development of learning networks (educational institutions and social entities) in the information and knowledge society.

The use of virtual learning environments (AVAs) enables technological support for teaching mediation in the development of extension projects based on what Siemens, cited by Carbonell (2016), defines as connectivism learning, in which one learns through the exchange of information and intense technological interaction. Functioning as more than a mere repository of content, a space for mediation of doubts and for carrying out evaluation processes, according to Pereira, Schmitt and Dias (2019), AVA uses the internet in an integrated and virtual way for:

(1) access to information through didactic materials, as well as the storage and availability of documents (files); (2) synchronous and asynchronous communication; (3) the management of administrative and pedagogical processes; (4) the production of individual or group activities.

In this context, through AVAs, it is possible to mediate learning in different contexts from the understanding of the problem and / or potential, from the discussion and projection of customized solutions according to the different realities, from the delimitation of the best options / ideas and from the co-creation of the project. Then, the project will be validated with local entities and actors involved (which may be in the AVA itself), the analysis of the implementation feasibility, the elaboration of the pilot project and the delimitation of indicators. Finally, the execution of the project, evaluation and systematization of the lessons learned and its publication.

It is important to highlight the need for the project to adhere to the professional profile of the undergraduate course and respective competences (knowledge, skills, attitudes and values), as well as its modeling configured in integrated didactic units, that is: “[…] a proposal for work in which a certain number of areas of knowledge or disciplines participate, designed to cover a relatively short period of time” (TORRES SANTOMÉ, 1994).

In the context of the distance modality in the institution under study, extension projects, guided by 12 (twelve) professors from teaching and social work programs, focus on transversal thematic areas, namely: cultural diversity; ethnic-racial relations; environment and citizenship; gender equality; education; human rights education. The projects, with diverse objectives, are directed: a) to the reflection and the deepening of the themes referred from the situational analysis of the participating publics (students and teachers of public schools, members of OSCIPS and neighborhood associations, social movements, companies, entities government); b) co-creation of work projects in the AVA; c) the development / implementation of the action schedule foreseen and validated by the participating audiences; d) the sharing of results and collective evaluation. Students participate in scientific initiation and extension salons at the hubs to present their experiences, in the same way that they give feedback to participating audiences, through reports, seminars, workshops, production of teaching materials, recording and exhibition of short films, photographic exhibitions and scientific articles.
3. Methodology

The study is characterized by a qualitative-exploratory approach centered on the description of the experience of students in distance learning courses, through the analysis of the evaluation instrument used by the 12 extension projects developed in the period 2017-2018. It is classified as a social research under a phenomenological approach, starting from the everyday activities of extension programs and trying to identify the learning attributed by these subjects.

Of the 41 academics participating in the pilot projects, 18 (44%) responded to the evaluation instrument, featuring a convenience sample. The evaluation instrument used was created by the author. It consists of a total of 7 (seven) discursive questions that seek to assess the development of projects and their impact on student education. For this analysis, only 3 (three) questions were selected: a) What was the motivation for your participation in the extension project?; b) Did the extension projects of the distance modality contribute to your academic formation? Why?; c) If yes, list the most important lessons you learned in the development of the project. The analysis categories, defined from the extension guidelines, were: inseparability of teaching-research-extension; university-society integration; interdisciplinarity; experiential learning.

4. Results and Discussion

The sample consisted of 18 extension students who answered the motivations that led them to participate in extension projects. The academics stressed, considering the frequency of responses (multiple choice question): the need for additional hours (massively); the opportunity to expand knowledge and experiences; the approach to environments of future professional practice; interaction with the community; curiosity for the alternative learning proposal through extension projects; the theme of the project; the potentiality for practical application of the theory (ies) studied. Complementary credit is seen as the main motivational factor for academics, a circumstance that reveals the need for wide dissemination of the pedagogical potential of extension projects, which involves, in addition to academics, pole coordinators, course coordinators, professors and tutors. The extension practice carried out through continuous procedural activities, with objectives (academic / competencies / DCNs and community / demands, problems, local potentialities) and delimited evaluation process / instruments, supported by a methodological conception of learning in real contexts, reveals an epistemological disruption.

Of the sample of 18, 94% (n = 17) of the academics stated that the extension projects contributed to their academic-professional training, which, in dialogue with the authors studied, reaffirms the academic-social concept of extension, under the modality of projects, as well as its experiential learning character. Extension guided by academic objectives related to the professional profile of the training of undergraduate courses and by community objectives related to local demands and integration with public policies, being carried out by students guided by professors, from which a connection between contents and realities appears, between science and society. When referring to the professional profile of undergraduate courses, I refer to the National Curriculum Guidelines (DCNs) of the Ministry of Education (MEC), institutional policies, professional standards issued by Class Councils. In turn, the community objectives encompass demands, potentialities and locoregional problems related to this professional training profile (defined in the Pedagogical Course Project).

When questioned, students list the main lessons learned: teaching mathematics in a playful and interdisciplinary way through games; technologies applied to learning processes; learning to learn and know from the experience and reflecting on the process; the teaching-research-extension articulation as a single learning process; scientific initiation in extension practice; interactive and cooperative learning
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through working groups; curiosity for new and autonomous learning; critical look at reality from the historical context in which they are inserted; reflection on contemporary themes, such as the environment, racism, religious intolerance, gender, accessibility, migratory processes, diversity and interculturality, inclusion and exclusion, bullying versus human rights; critical assessment of environmental issues and (un)sustainable consumption; interpersonal relationships; interdisciplinary articulation between different areas of knowledge; new languages and rationalities (social, cultural, linguistic, logical-mathematical, musical, emotional, artistic, corporal, among others); improving textual competence; critical-reflexive ability; intimate transformation as a being in the world / person / citizen; practical application of the studied theories; expansion of the learning environment (real contexts).

The analysis of the students' partial and final evaluations, in turn, shows the articulation of extension with teaching and research, as well as different areas of knowledge from the perspective of 67% (n = 12) of the respondents. Hence the systematization of these projects, adhering to the guidelines of the national extension policy: impact on student training, inseparability of academic dimensions and interdisciplinarity. Praxis (action-reflection-critical action) is configured as an investigative process that feeds back into teaching, overcoming the knowledge trichotomy: research / production; teaching / transmission; extension / socialization.

Corroborating the statement by the authors, the student, as agent-actor, formulates their investigative questions (therefore becoming a protagonist of their learning experience) from the fabric formed by previous knowledge, theoretical foundations and social practices, in a permanent circular dynamic. A solidary conception of knowledge is assumed based on dialogue and articulation between the plurality of knowledge and social practices, as subjects problematize and reflect on their reality, generating new, autonomous and cooperative ways of thinking, knowing and acting on it.

In reference to the university-society dialogical relationship, 78% (n = 14) of the respondents highlighted the opportunity of integration with the territory through the practical application of the theory studied in real and diversified scenarios (social movements, governmental and non-governmental entities, all sizes), considering the contexts in which the students / hubs are located. Such result, adhering to the authors' propositions, asserts the potential of implementing a university model in permanent social interaction, acting with greater social relevance from extension projects integrated into the curriculum and articulated to research (delimitation of lines of research and extension adherent to the academic profile and the local context). It also reveals the legitimization of knowledge as a social production, which results from action, problematization and reflection and education as a dialogical-dialectic relationship. Therefore, the perspective of overcoming instrumental, utilitarian and reproductive teaching centered on the professor and limited to traditional methodologies (sometimes resulting from the mere transposition of classroom models to virtual environments) is conceived.

Furthermore, the results obtained, signal the need to redefine the extensionist conceptions of the academic community with a view to expanding the participation of students in projects from the understanding of their pedagogical-social potential. However, the research corroborates the effectiveness of student learning related to cross-cutting themes (cultural diversity, environment and citizenship, human rights education, ethnic-racial relations, gender equity, education), as well as highlighting the teaching-research-extension integration and university-society as a learning catalyst. With regard to interdisciplinarity, the list of learnings raised in the research shows the feasibility of materializing holistic education guided by the connection between curricular components and diverse areas of knowledge, encompassing, according to the National Extension Policy (FORPROEX, 2012), interinstitutionality, interprofessionality and intersubjectivity.

From the above, it should be noted that the experimentation of project-based learning methodology applied to distance learning (mediated by ICTs) and carried out by students in the inquiry and resolution of real problems, transformed the virtual environment into a locus of research and learning, integrating
formal learning with everyday experiences and breaking the traditional axiom that learning results exclusively from teaching (the current transmissive model).

5. Conclusion

The National Education Plan (BRASIL, Lei 13.005, 2014), in its Goal 12.7, and Resolution nº 7, of December 18, 2018 (MEC / CNE, 2018), challenge higher education institutions (HEI) to rethink its pedagogical proposals, proposing extension activities that are linked to the education of the student and that directly involve the communities outside the HEIs. In other words, the extension is configured as the academic dimension that involves the dialogue between academic-professor-society. It is foreseen in the resolution referred that, in the distance modality, the extension activities must be carried out in person, in a region compatible with the support pole in which the student is enrolled. In the present study, although the projects were developed in a period prior to the publication of the aforementioned resolution, such condition was observed, working with professor mediation via ICTs and using the methodology of pedagogy by projects / action research and tools of design thinking.

It is concluded, from the perspective of the respondent students, that the 12 (twelve) extension projects developed in the 2017-2018 period in undergraduate courses of the distance modality contributed to the construction of learning in real contexts related to the territorial demands and potential, to curricular guidelines of the courses involved and institutional policies - a fact that is corroborated by the list of learnings mentioned by students, in particular: learning to learn and to know from experience and reflecting on this process; the teaching-research-extension articulation as a single learning process; scientific initiation in extension practice; interactive and cooperative learning through working groups; curiosity for new and autonomous learning; critical look at reality from the historical context in which they are inserted; improving textual competence; critical-reflexive ability; intimate transformation as a being in the world / person / citizen; practical application of the theories studied; expansion of the learning environment (real contexts).

The results obtained indicate:

a) the effectiveness of student learning in undergraduate distance education courses related to transversal themes (cultural diversity, environment and citizenship, human rights education, ethnic-racial relations, gender equity, education);

b) the methodology of pedagogy by projects / action research as a power for the articulation of academic dimensions (teaching-research-extension), for integration into the territory and promotion of experiential learning;

c) the feasibility of interdisciplinarity in extension projects, guided by the connection between curricular components and diverse areas of knowledge.

Finally, from the study carried out, it is understood that the challenge of extension curricularization, based on programs and projects linked to the curricular matrix of undergraduate distance learning courses, presents a similar complexity to the presencial courses, as long as rigor and methodological coherence are observed, professor training in extension and in methodologies applicable to extension, a procedural and emancipatory evaluation process, an effective institutional articulation with the territory, an AVA whose resources meet the technical needs for the collaborative construction of projects, their development and evaluation, such as interaction rooms, chats, video conferences, design thinking tools (such as virtual brainstorming, statistical tools, google docs, online canvas for planning action plans, concept maps, webfolios, are some examples).
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