

Tutor Project the Mediated Relationship Between the Teacher and the Technological Apparatus in the Context of the Pandemic

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October 30, 2021

# TUTOR PROJECT THE MEDIATED RELATIONSHIP BETWEEN THE PROFESSOR AND THE TECHNOLOGICAL APPARATUS IN THE CONTEXT OF THE PANDEMIC

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A critical reflection on education is needed, the work in the current pandemic period of COVID-19, which involves a search for means of distance education, which reinvents itself to mitigate the damage caused by the pandemic in education. The use of technological tools in education appears as a way to promote interaction between students and teachers. The role of the teacher is being highlighted because, more than ever, the proximity between teacher and students is necessary to overcome this important context full of challenges. The moment is to rethink pedagogical practices and reconnect with what really makes sense in the teaching-learning process, dialogue. Educators began to have greater contact with the technological apparatus, and the relationships between teacher and student began to gain new meanings and meanings in a more symbolic way as face-to-face contact was replaced by the digital medium. Access to digital platforms can provide knowledge, but they must address the question of what the future of education will look like in a world shaken by coronavirus. Use the new communication technologies and distance education to face the scale of the challenge that presents itself. The school environment is one of the favorable contexts for better communication between students, increased creativity, solidarity, commitment, among other skills. The Tutor Laboratory project (Technology, University, Work and Guidance), linked to the Federal Technological University of Paraná (UTFPR), also went through the process of reinventing itself as a laboratory whose objective is to foster the relationship between professors and students. It offers students new opportunities to shape their career choices and careers. Being an extension project that before the pandemic, traveled to schools and interacted and experienced the school space in connection with the university. Currently, it uses technological tools to give different directions and paths, but sharing knowledge of different current themes and relevant historical contexts to discuss and reflect, they were carried out with a speaker, group members and the general public through lives, lectures, meetings whether on Instagram, Facebook, Google Meet, Zoom, among other digital media. The changes serve to build collective knowledge, the union of skills and abilities, and efforts are needed. The construction of these new challenges needs to be collective, to analyze which tool is most suitable for digital media, which methods and methodologies, considering the real needs and resources of each discipline. The teacher's health, which made their work an intense routine, their family environment was confused with the work environment, more hours in

front of technologies, increased speed of information, pressure and greater demands on teaching-learning relationships. The need to think about expanding care for the educator and its limits must be respected. Allow giving voice to educators, in an attempt to understand their view on the dimensions of access to education and the conditions of their experiences so that a post-pandemic world can be reconstructed with everyone's voice.

Keywords: university extension project, pandemic, technology, education.

A critical reflection on education and teaching work in the current pandemic moment of COVID-19 must go through an active search for new media and question their limits and possibilities of use by social actors. Faced with the condition of social isolation and the need for distance, the relationship between teaching and learning and between teacher and student are profoundly altered. The issue of participation in teaching, research and extension activities has the power to transform relationships through social participation in the face of themes and issues of common interest, which are brought up by university students, if extension actions are developed that interfere in the community through lectures , meetings and courses. Thus, the integration between university and community takes place through extension. By developing activities that contribute to promoting life in the context of the pandemic, the extension enables the construction of a critical vision of participation and democratic citizenship.

It is therefore the outreach activities during the pandemic that are offering new hope for university students and the surrounding community in the formation of social and human values, prioritizing the use of the technological apparatus for teaching. Extension takes on a new meaning of valuing the learning activity with the important contribution of university students to the promotion of better living conditions in the community. According to Farias (2020), the university extension project seeks to combine teacher education with experimentation and Science Teaching, forming a tripod that enables constant collaboration between university and school.

Bringing new elements of community participation, the educational project of the Labtutor extension is related to the national project guided by the national curriculum guidelines. The Labtutor extension project, which was initially carried out in person in high schools with lectures and professional guidance, has undergone a major transformation, and the urgent need to reinvent itself and remain active in the school community has affected the way in which actions are carried out. The project remained active during the pandemic in the integration of teaching, research and extension activities considered to be fundamental axes of the national educational policy project.

It cannot be imagined, however, that technology is something neutral and that it has a linear and uniform development, or even that all people in the academic community have adequate access to educational technologies. Thus, this transformation from face-to-face activities to remote activities in the extension represents mainly for the teacher an increase in the time dedicated to new learning.

When talking about extension, the themes must necessarily come from the community and they need to have the participation of professors and students in the discussions and selections of the themes to be addressed. Based on the premise that interest in the subject is selected by the community, the strategy for developing lectures is facilitated in the dialogue with the environment. In addition to the lack of technological resources and social conditions favorable to computer use, another complicating factor is the time devoted to planning and carrying out actions. For Silveira et al (2021) the context of the pandemic has challenged teachers to reinvent the way of teaching and practicing medicine. Thanks to new digital technologies, it is possible to implement teaching methods remotely. According to Munhoz et al (2021), the use of digital media tends to expand the population's access to information, enabling new means of learning and promoting a network of contact between students, teachers and the community.

Since the exposure of students and teachers to intensive use of the internet can harm health in general, a reduction in the time of online exposure was studied for the effectiveness of actions, certainly, this was certainly a key factor for that extension practices could be improved.

### Actions and themes developed:

The project took place through the laboratory's lives on the network and social media in order to disseminate knowledge during the isolation period, with emphasis on virtual conversations about :

- 1. Home Office in times of social isolation,
- 2. Student mental health in times of quarantine,
- 3. Coronavirus and the state of emergency.
- 4. Personal organization and time management in times of pandemic,
- 5. Women and gender violence in the epidemic context Re-
- 6. signifying garbage
- 7. Women in engineering and the challenges of the home office,
- 8. Borders and challenges of the UTFPR administration course,
- 9. Career development in times of crisis,
- 10. The athlete
- 11. 's career, journalist's career,
- 12. The The teacher in remote education and cultural-historical psychology,
- 13. Work and health in nursing,
- 14. Education and work,
- 15. Mental health in Latin America,
- 16. The role of being a mother,
- 17. The career in the electricity,
- 18. The importance of the Unified Health System (SUS),
- 19. University-school connection.

# Action how many people participated in what they felt and perceived from the activity.

The project included the realization of lives between the months of April and November in the year 2020 and there were more than 2,083 views in the lives carried out by the project, with 2,928 followers in the instagram application. A much higher number than initially expected, if the project had been developed in person, whose reach would be much smaller and restricted due to the need for physical space to do so. Using Instagram's engagement indicators as a tool, specifically the reach number of accounts by publication, it is possible to observe the greater visibility of the actions.

Valuing and preserving local knowledge, in order to be able to develop projects in the community, which are in accordance with their interests and without disregarding the determination of social isolation, was one of the guiding assumptions of the extension project. The intensive exchange of technical-scientific knowledge between the university and the community demonstrates the capacity to build a socio-technical network as a powerful tool for the dissemination of knowledge, strengthening the relationship between the university and the community.

Participants at the entrance to the university are representatives of the school community, both teachers and students from the public schools that are partners in the project. In the other activities, the interest groups of the university students were mainly linked to the themes of careers, work and professions that changed with the pandemic. Public health and the preservation of life as well as day-to-day care were contents addressed by psychologists and guest professors. Thus, in this third group mentioned, the number of speakers and participants benefited by the dynamics of the extension project was expanded. Due to the wide spectrum of reach of the internet and considering the few resources available to bring information to the community, we consider that all available technological resources could be used.

The processes and services described in the extension project have always had the purpose of bringing quality information to the Brazilian community, corroborating authors such as Do Amaral Souza et al (2021) that remote teaching required an adaptation of students and teachers in the new process of teaching and learning that would be done using information technologies. In this way, we understand that the project was able to use the technological tools to enable its continuation. For Neto et al (2021) the digital ones incorporated through distance education platforms, allow a better qualification in teaching, in addition to facilitating the learning of the developed contents.

According to Bartsch & Jantsch (2020), the extension project brings us closer to the community and real demands, adding to our professional practice and reality. After all, university extension has an integrative role in promoting knowledge and in the development of skills and attitudes for an ethical, qualified professional training in tune with the Brazilian reality. For Demarco et al (2021) the social role and importance of the University in the dissemination of consolidated scientific information, a project was created with the intention of being a communication channel with the community, using virtual tools. The university is a space to foster creativity and human development. For Gamaro, Bueno & Froes (2021) it is believed that the creation of yet another space for interaction and communication, in such a unique period, enables a channel of dialogue beyond the University.

Extension activities are designed to build theoretical/conceptual and practical scientific knowledge, which also enables reflection and sharing of experiences from the practical school field. For Souza, Gonçalves, & Galvão (2021), extension activities are ways to guarantee the provision of teaching through new methods, representing the guarantee of access to academic content and reliable information in the virtual environment, as a way to overcome the barriers imposed by the social isolation, required for the control of COVID-19.

For Lima, de Souza, Cunha & Darsie (2021), actions characterized by improvisation can be a source of learning for the academic community, however, this depends on a robust planning in the resumption of face-to-face activities. The project fulfilled its social role, bringing continued education to the community, through university extension during the current pandemic. The project's trajectory, emphasizing the questions raised and dialogues with students and professionals. ) the involvement of academics with the local community stimulated the approximation and debate about the health crisis we are facing, as well as the social impacts.

Extension project and the use of digital tools. For Colman et al (2020), build non-formal spaces for language teaching and learning and value student protagonism and cultural diversity in conjunction with new technologies. According to Vieira (2020), the extension project aimed at holding virtual debates as a possibility for reflections and elaborations of confrontations in relation to the crisis caused by the pandemic, articulating subjectivity, society and politics.

For Colares et al (2020), the project enabled an environment for sharing ideas and technical and scientific knowledge, essential for the academic and professional area, especially at a time of global pandemic, when teaching and learning processes are taking place online. Da Costa et al (2020) in times of pandemic, increased its visibility on social networks and obtained positive results from the exchange of knowledge, enabling the minimization of impacts on mental health during social isolation, in addition to the physical limitations that cyberspace makes it possible, through important content and themes, to be approached and discussed.

According to Ortiz, Morgenstern, & da Silva (2020), online activities enabled the maintenance of extension practices and expanded the means of dialogue with the community. The actions undertaken demonstrated the strengthening of the understanding of extension, as a fundamental university function, and evidenced the effective participation and intervention of students in permanent dialogue with the community.

According to Wiese (2020), the extension project has enabled training in line with reality for academics and brings benefits from university actions to the community. For Guesser (2020), university extension is one of the main pillars of the Brazilian university, and we can risk saying that it is the communication that is established between university and society

For Oliveira et al (2020) the use of the Internet to disseminate content showed to be efficient, presenting many views and enabling the increased visibility of the project For Oliveira et al (2021) the extension activities integrate the university with the community, enabling contents passed on in the classroom to reach the population in the form of educational actions. The knowledge and practices developed in these experiences, if properly supported, formalize a fundamental action of the university at that time.

Second, Santos et al (2021) university extension plays a relevant role in professional training, connecting the university to society. According to Moutinho (2021), the essential role of university extension for the social fabric and the training of students and teachers, already that it has always been below teaching and research.

As Nunes (2021) restructured well the project to the new format and we were surprised by the reach of the publications and the ability to positively influence people's lives, seeking to bring up relevant issues with a scientific basis, in order to, even remotely, try to improve the well-being of the population. For Cardoso (2021) the access to promotion, prevention and rehabilitation of the target audience of the extension project was expanded.

The university extension is an expression of the university's social commitment to society. Being one of the three axes of higher education, alongside teaching and research. According to Lorandi (2021) the university extension acts in the mediation of the dialogue between the academy and the community, promoting the democratization of knowledge and encouraging the understanding of reality. For Mélo et al (2021) the extension was adapted to the needs triggered by the pandemic COVID-19 and coping actions were developed to mitigate the pandemic scenario. For Parlato, Dos Santos & Medvedovski (2021), the Extension activity is one of the student training strategies: students learn to apply, within reality, the teachings learned at the University and to recognize the social practices and the knowledge developed. According to (Kleinubing & Dal-Cin 2020), university extension as a space in which they expand their knowledge and prepare for future pedagogical activities.

Technology has been the tool that enables this contact at a distance, however, it has been a challenge for both parties. According to Tassoni et al (2020) learning to work better with technological tools in order to produce good health content in a didactic, objective way, but without forgetting the welcoming and affection, which are characteristic of the extension. For Cesar et al (2021), the use of these technologies is the need for training teachers and students to use software and adapting academic materials to the appropriate language for the level of understanding of the target audience. For (Just & Neckel 2021) awareness of teachers in schools themselves regarding the importance of using experimental resources to improve the teaching-learning process. The university extension works, essentially, from the diverse and shared interests between the academy and the community in a mutual learning process. For Post et al (2021) the experience was able to strengthen the team to create future action strategies that can overcome many adverse effects caused by the pandemic. According to (Da Silveira, Miguel & Del Maestro 2021) university extension works with the communication of knowledge. In this sphere is the question of how to learn, undertake and connect the knowledge produced in the face of new or traditional interactions that unite teaching, information technologies and university research. Its role is summarized in the union between approximation, integration and partnership of the university with the community, and the university extension makes it possible to return academic teaching to the external community. Para Dos Santos (2021) develops the social aspects and the dialogue between the university and the community, as well as strengthens knowledge and the constant search for the best way to socialize it, students. According to (De Souza Soares, De Santana & Comper2020) the process of adaptation of the teaching activities of a university extension project to the modality of remote teaching, sharing experiences and lessons learned that can contribute to the design of new pedagogical strategies.

## Plataformas used and contacts with schools:

Some pedagogical tools that can and should be used in digital learning in the construction of the extension project during the pandemic were. The project was publicized on Instagram, Facebook, Website, making "posts, stories and lives" with different contents related to COVID-19 and carried out in digital tools such as: Google Meet, Zoom, WEB Conference. The internet and digital platforms are important allies in the projection of content and initiatives developed by the academic community. The University's outreach actions have gained greater visibility on the internet with the work of the outreach program. The project's presence on social networks highlights the importance of discovering new ways of caring, listening and adapting health practices to the virtual context.

There are processes that can affect our health in general, so taking on technologies indiscriminately can affect human learning. Contradictory, but more than ever we should take it to the community and discuss the effects of the pandemic on life, on family and social relationships and on learning that affect traditional forms of relationships. With the use of technological tools in education as a way to promote interaction between students and teachers, it should be debated because the role of the teacher is extremely important. In reality, the teacher is making an effort to keep up with technological advances, to learn the use of technological devices, but he must problematize the use of technology because it reflects a field and context full of challenges. The lack of knowledge of technological resources and the difficulty in dealing with language mediated by the media transform university extension activities to mitigate the damage caused by the pandemic.

Extension-making, as well as practically everything in this new moment, needed to be reinvented. For De Melo et al (2020), the project reinvented itself and implemented a new way of doing university extension, reaffirming that the community is not just the one that is physically close to us, our community is the world. According to (De Lima, De Fátima Guimarães & Arruda 2020), extension as an educational and scientific process that generates and disseminates new knowledge is configured as the privileged locus of interaction, Dialogue and Transform

The university has an extremely important social function in the formation of people who work in different areas of knowledge According to Corcini et al (2021) university extension has been remodeled and has become even more important, starting to play a role that will help the transmission of knowledge to the community. The Tutor project outlined its objective to discuss essential themes and strategies to overcome the problems faced by society, especially in relation to the Coronavirus pandemic currently faced. According to Dos Santos (2021), the extension activities of universities can be expanded and encouraged, using a greater multidisciplinarity in their actions, but observing the area's achievements and its positive impacts on regional development.

The university is, each in its field of action, proposing and carrying out actions that contribute to facing the effects of the pandemic and thinking of alternatives for the continuity of our life in society. Second (De Lima Dias, Caldas Brognoli, Hamm & Neto 2020) the university extension must assume its responsibility with the different segments of society, building new paths for projects and actions with the community, with the use of digital platforms, as a way to minimize the impacts of the pandemic on the lives of the population in all spheres. The University can exercise part of its social role of getting closer to the community, contributing to the presentation of higher education to potential future academics and mainly assisting in professional choices.

For university extension, it is an expression of the university's social commitment to society, as it represents the link of research and teaching acquired by its students and propagated by its professors, in a continuous teaching-learning process, full of exchanges, knowledge, science and mutuality. According to Addor (2020) reflections on the role of extension and technology to face the pandemic and think of new paths to be traced in the post-pandemic context. Extension actions seek, through knowledge and the exchange of knowledge, to promote social transformation and establish even stronger connections between university and society. According to Cardoso et al (2020) health extension actions remotely should be encouraged, as they promote the approximation of the community with academic knowledge.

According to Funai et al (2020), consolidation of professional training and emphasis on the importance of recognizing extension as a fundamental social role of universities. The university extension can promote human and environmental development within this new reality, thus, it is expected. The opportunities supplant the challenges, the challenges were once computational-technological in nature

For Franz et al (2021) the participation of the community in both moments of this project showed that they are able to provide an environment for debate, understanding and exchange of information about the problems faced. The TUTOR project contributed to the improvement of this remote emergency teaching modality, even considering its limitations. According to De Oliveira et al (2021), the social commitment of the public university and the university extension in contributing to overcoming the emerging challenges and needs of society.

The TUTOR project continued to exercise its extensionist role during the pandemic, contributing to the approximation between academia and society. According to Pereira (2020) the project develops critical capacity and citizen academic education, committed to social transformations and well-being. For Azevedo et al (2020) it is possible to conclude that we can continue working in extension actions during the pandemic, as a way to bring benefits to society and act in the maintenance of the construction of scientific knowledge According to Casagrande (2020) the university project that was developed remotely, it made possible the problematization of everyday school life and the representations built in it, with an interrelationship between teaching and epistemology, in a critical perspective. For Labiak (2020) the importance of the role of extension in the dialogue between university and community, presenting the impacts for the subjects involved in the extension actions carried out.

According to (Silveira, Miguel & Maestro 2021) university extension works with the communication of knowledge. In this sphere is the question of how to learn, undertake and connect the knowledge produced in the face of new or traditional interactions that unite teaching, information technologies and university research. For De Oliveira (2021), extension projects, when articulated with research projects, enable the production of scientific materials that can be shared and promoted in different media. For (Francisco, Veiga & Cunha 2021) extension in higher education has been considered a substantial element for the development of opportunities for pedagogical and curricular innovation.

According to de (De Brito, de Souza & Oliveira 2021), the dialogic interaction between university and community allowed the construction of new knowledge and the development of communication skills. For Neves et al (2020), the process of articulating extension remotely brings an understanding of the plurality of forms of knowledge production from the academic environment to society. The project reinvented itself and implemented a new way of doing university extension, reaffirming that the community is not just the one that is physically close to us, our community is the world, as well as being certain of the collaboration and appreciation of the academic community with the work carried out by the Extension.

### **Final Considerations**

The experience of the TUTOR project in relation to the learning process from face-to-face to virtual, added to the training of participants, reflections on feelings, instability and even uncertainties about the arrival and course of a pandemic never experienced by all. University extension projects should be encouraged within educational institutions, given their benefits to the community. Being a university extension enables communication of knowledge.

The challenges of university extension at a time of pandemic, if it succeeded in a positive way in overcoming this situation and not stopping extension activities, educational institutions made a migration from the real to the virtual. Therefore, it is concluded that the importance and relevance of extension activities enriched academic training, providing us with countless discussions and reflections, through multidisciplinary and current themes, about our role as academics in a public and free institution.

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