International Journal of Human Sciences Research

Acceptance date: 15/05/2025

EXPERIENCE REPORT: FAST GIRLS IN THE NEW HIGH SCHOOL SECTOR

Raissa Contini

Graduated from the University of Brasilia, teacher at the Federal District Department of Education

Simone Aparecida Lisniowski Professor, University of Brasília

Dianne Vianna

Professor, University of Brasília



All content in this magazine is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).

Abstract: This study presents an experience report by undergraduate students who took part in the "Fast Girls in the New High School" project, developed in 2022 as an evolution of the Fast Girls Extension Project, created in 2013. The main objective of the initiative is to promote access and permanence of young women in Higher Education, with a special focus on their insertion and leading role in the areas of Exact Sciences, Engineering and Technology. Acting as monitors in extension activities, both as scholarship holders and volunteers, the future teachers not only broaden their pedagogical training, but also contribute to strengthening and expanding the project's activities. Based on this practical experience, the paper proposes a critical reflection on the impact of the initiative, highlighting how the integration between different areas of knowledge, especially with the contribution of the Human Sciences, enhances the results achieved. The project's methodology in undergraduate courses aims to encourage the development of participatory strategies in the teaching of subjects in the area of exact sciences, especially when aimed at young people who face structural barriers of gender, race, social class or connection to the public school system. The focus on undergraduate courses has made it possible to articulate diverse knowledge, stimulating transdisciplinary debate and concretely encouraging the presence of women in spaces historically marked by male predominance.

Keywords: Education, Girls, Women, Science, Graduation

INTRODUCTION

Living as a woman in a society marked by machismo and patriarchy means facing restrictions, including the belief that female bodies have no place in certain fields. Despite the difficulties still present, with the advance of feminism, women have managed to develop in the sciences and occupy spaces that were previously very distant for them.

A few decades ago, when you entered a classroom in a university in the fields of exact sciences, engineering and technology, you would notice the absence of women and a majority male representation. Today, with the debate on inequality and gender issues, it is already possible to identify a significant number of women in these institutions, seeking knowledge, collaborating in research in these areas and, above all, serving to positively represent women (Ribeiro and Silva, 2014).

As mentioned earlier, the increased participation of women in the sciences is related to the greater visibility of feminist agendas (Ribeiro and Silva, 2014). This prominence, in turn, can also be promoted through educational initiatives that recognize the potential of female students in schools and that, from the beginning of their school careers, motivate them to conquer all kinds of spaces.

The Fast Girls Project is a university extension project created in 2013, linked to the University of Brasilia (UnB), to promote gender equity in the areas of science, technology, engineering, arts and mathematics through STEAM workshops¹. The proposal was born out of the low representation of women - especially black, indigenous and peripheral women - in engineering and technology courses, spaces historically dominated by men and also marked by dynamics of exclusion based on race and social class. The project therefore began to encourage girls to take part in the exact sciences at a public school in the Federal District.

^{1.} STEAM stands for Science, Technology, Engineering, Arts, and Mathematics.

The project has grown and expanded into different extension actions, one of which was the STEAM workshops for elementary school, and from 2022 it will also work in elementary school with the 'Girls Speeding Up' project at . Another action was the linking of Fast Girls with secondary school degrees, which strengthened interdisciplinarity and a perspective of pedagogical and didactic debate on the teaching-learning process. The Fast Girls project has become a permanent action, linked to the Degree Courses in Action program, involving undergraduate students from different courses who act as monitors and researchers in training. These projects develop joint and individual actions to promote the objective of awakening interest in STEAM in a playful, multi-sensory and critical way from the early years of basic education. Thus, initially a project carried out by professors from UnB's Faculty of Technology, it has also consolidated partnerships with other UnB Faculties, such as Education, Psychology and Social Sciences, expanding its interdisciplinary character and its institutional capillarity.

This proposal is part of the New High School, offering interdisciplinary pedagogical workshops aimed at female students from the public school system. Through activities that integrate science, technology, engineering, arts and mathematics (STEAM), the project seeks to foster female interest and protagonism in technological areas.

As an interdisciplinary program, *Fast Girls* offers the opportunity for undergraduate students from various disciplines, both in the exact sciences and the humanities, to act as monitors. The contributions of the humanities, in this project originating from the Faculty of Technology's knowledge, promote gender equality in conjunction with ethnic-racial and socio-economic issues, thus explaining the need and relevance of the project to school students.

The project became part of national and international events, such as the UnB University Week, COBENGE and the International Women in STEAM Congress, and established partnerships with institutions such as Université Paris 13, the Brazilian Space Agency (AEB) and the Portuguese Society for Engineering Education (SPEE), becoming part of the Brazilian Network of Women in Science (RBMC).

The theoretical discussions mobilized by the project include topics such as gender stereotypes, access to education, female identity, racial and social inequalities, and the mental health of girls in vulnerable situations. The project recognizes that it is not enough to introduce girls to the sciences without tackling the symbolic, institutional and cultural barriers that limit their academic and professional trajectories.

DEVELOPMENT

The project is based on the methodology of active learning, basing its actions on the articulation of critical and cognitive theory with participatory practice and promoting autonomy in the teaching-learning process. The activities are organized in the form of pedagogical workshops, conversation circles, laboratory experiences, technical visits and reflective meetings organized by monitors, scholarship holders and volunteer students from different undergraduate courses at the University of Brasilia: engineering, exact sciences, education, psychology, arts, social sciences, health sciences, earth sciences, among others. The workshops are designed with pedagogical guidance from an interdisciplinary team of professors from these different courses. As soon as it was expanded to include undergraduate courses, the project began to place even more value on the high school curriculum and the demands of the partner schools for laboratory and practical activities.

The pedagogical approach prioritizes intersectionality, addressing the relationships between gender, race and class in the educational context. The workshops under the responsibility of the undergraduate students are: integration actions, evaluation of the project's articulation with the school's curriculum, study management, conversation circles on cross-cutting themes, help with the didactic development of the workshops and evaluation of the process. As well as dealing with the technical content of the STEAM areas, the actions seek to foster the girls' protagonism, strengthen their self-esteem, broaden their horizons for the future and confront stereotypes that have historically limited their entry into certain professional fields.

The methodology of the Fast Girls Project is broader and is structured around three main axes, in which undergraduate students act as monitors:

- 1. STEAM workshops: accompanying and assisting in the planning, execution, monitoring and evaluation of workshops and practical activities in robotics, programming, scientific experiments, rocket launching and the use of digital technologies, 3D printing and programming, visits to laboratories, university lectures and events;
- 2. Workshops on study management and emotionality: planning, execution, monitoring and evaluation of workshops for integration, group dynamics, games, discussions on learning methods, self-esteem, organization, affections and mental health:
- 3. Workshops on gender, race and identity: conversation circles, photolanguage, theater of the oppressed, debates on social symbologies and the construction of female identity.

The actions implemented in the project are characterized by their interdisciplinary approach and the use of active teaching methodologies, with a focus on promoting meaningful learning, the psychosocial development of the participants and reducing gender inequalities in scientific-technological contexts.

Active methodologies are pedagogical alternatives that place the focus of the teaching and learning process on the learner, involving them in learning by discovery, investigation or problem solving. These methodologies contrast with the pedagogical approach of traditional teaching centered on the teacher, who is the one who transmits the information to the students. (Bacich and Moran, 2018, p.12)

Robotics and programming workshops were offered, based on practical projects using electronic kits, 3D printing resources and prototyping tools. These activities aimed to stimulate the students' creativity, logical reasoning and computational thinking.

Scientific experiments were also carried out, integrating theory and practice through the collaborative resolution of real problems.

Before the face-to-face workshops, flipped classes were offered. "In the flipped classroom approach, the content and instructions received are studied online, before the student attends the class" (Valente, 2018, p. 27). This active methodology favoured the construction of knowledge in a contextualized way, encouraging the intellectual autonomy and protagonism of the young women.

Conversation circles and photolinguistic workshops allowed themes such as identity, self-esteem, gender relations and future prospects to be addressed. These strategies, based on active listening and sharing experiences, helped to strengthen subjective expression and a sense of belonging among the participants.

Workshops were also developed based on the Theater of the Oppressed, with the aim of promoting integration between the students, fostering interpersonal trust and providing playful experiences with reflective potential. The theatrical dynamics applied encouraged the exercise of empathy, listening and critical thinking.

The aim of the Study Management workshops was to provide guidance on individual learning styles, point out the need to develop personalized study strategies, and promote an open dialogue about the difficulties faced during the learning process.

In addition, technical visits were made to laboratories at the University of Brasilia (UnB), go-kart tracks, innovation centers and *makerspaces*, broadening the students' experience of academic and technological spaces.

The creation of a testimonial space, in which female engineers and scientists recounted their professional careers, was a strategic action to highlight successful female role models in the STEM (Science, Technology, Engineering and Mathematics) fields, acting as a means of inspiration and identification for the students.

Another area of activity involved taking part in scientific events, where banners, posters and articles written by teachers and monitors were presented, promoting the inclusion of students in the world of research and scientific dissemination.

Finally, the project's social networks were managed by the fellows in order to disseminate the activities carried out, broaden the reach of the actions and strengthen the engagement of the university, school and external community.

Thus, it can be seen that one of the project's focuses is on empowering students to develop their autonomy, self-esteem, motivation, personal organization and self-knowledge. The study management workshops deal

with planning activities, routine, goals and learning strategies. The integration and photolanguage workshops aim to create a space for sharing feelings, self-care, active listening and peer support, as well as promoting greater identity within the group and reflecting on the female condition, debating issues of gender, race, class, body and sexuality. With this, the project is linked to an integrative perspective of the school's curriculum, talking about life projects, access to university and scientific careers.

The subsequent follow-up of some of the former participants shows that several students have managed to enter engineering, physics, mathematics and technology courses at UnB itself, continuing the path of empowerment started by the Fast Girls Project. Some of the project's scholarship holders and volunteers are former fast girls from high school and relate their experiences in the workshops, creating a strong sense of identification, strengthening the girls' representativeness and, ultimately, forming an important sense of group beyond the project's initial objectives.

Beyond the project's initial objectives, its relevance as an agent of collective transformation stands out, promoting the inclusion of historically under-represented groups. In the specific context of degree courses, the project is developed in an interdisciplinary way, integrating different areas of knowledge. Its proposal is inclusive, especially in the field of exact and technological sciences, with an emphasis on engineering, with the aim of encouraging the participation of girls in spaces often perceived as inaccessible to them. By targeting undergraduate courses, the project seeks to foster an articulation between the knowledge of the exact and human areas, promoting a broader and more equitable education.

Given that the aim of the project is to encompass various spheres of knowledge and to promote collaboration between teachers and

students from different departments, there was an integration of the Psychology of Education subject, part of the Pedagogy course, with the actions of the Fast Girls Project, in order to raise cross-cutting issues present in the high school curriculum, which are important for thinking about the field of undergraduate education. The aim of this integration was to involve a greater number of undergraduate students, bringing in Licenciaturas em Ação, which includes the Meninas Velozes sub-project within the scope of the New High School.

In workshops such as seed dispersal, robotics, programming or rocket launches, the Licenciaturas em Ação team brings didacticism and dynamism to the workshops and activities in the laboratories. Their contributions are mainly behind the scenes, evaluating the effectiveness of the pedagogical approaches adopted, offering suggestions, monitoring decision-making and providing any additional support that is compatible with their level of skill and knowledge.

Within the *Fast Girls* project, time is also set aside for workshops exclusively related to the humanities, where the monitors play a leading role. It is mainly in these meetings that students from degree courses play a significant role, applying the specific knowledge of their courses. These students are encouraged to create workshops aimed at fostering the social and emotional development of the schoolgirls involved. These workshops also aim to promote self-knowledge and awareness of the concept of female identity.

In the first few days of the project, as part of the process of adapting and getting to know the new students from the participating schools, the undergraduate students have the task of developing integration activities. The Theatre of the Oppressed is used by the monitors as a dialogical practice (Freire, 1987), which is fundamental for settling in and socializing in the project. It also works as a rehearsal for

reality (Boal, 2005), allowing the oppressed to symbolically reconfigure situations of exclusion and share them with the group.

Forum theater is considered by Boal to be a rehearsal for life, through which the spect-actor experiments with the possibilities of acting, of demanding the resolution of oppressions experienced or witnessed in the social context. On stage, the subject is the bearer of the voice, of the scenic act and aims to put into practice ideas and suggestions for actions to overcome the problem of oppression, so that they can rehearse possibilities for action in the social context (Canda, 2012, p. 121).

Boal (2007, p.1) points out that these exercises "can be used both by actors (those who make the art of acting their profession and their trade) and by non-actors (i.e. everyone). Everyone acts, acts, interprets." He also points out that they can be used by teachers, as a pedagogical and social work (Boal, 2007).

The activities developed by the project's monitors with the schoolgirls, using the Theater of the Oppressed, at first offers a relaxed pedagogical tool, but at the same time presents itself as a relevant theoretical-practical way of addressing complex issues related to gender, ethnicity and social class in an experiential and reflective way. Each session culminates in discussions guided by questions about the power relations evident in the scenes and their possible re-significations.

These activities also provide the monitors with an immersion in different realities present in the school context, contributing to their initial training by bringing them closer to the concrete challenges they will face in their future teaching practice. This experience is fundamental for the development of a critical and reflective education that combines academic knowledge with social demands.

In this sense, it is important to establish an effective dialog between the university and the community, understood here not only as a physical or geographical space, but also as a set of subjects, stories and social problems that require attentive listening and ethical engagement. The presence of monitors in these spaces fosters sensitivity to the inequalities and concerns that run through everyday school life, contributing to the training of professionals committed to transformative education. Extension plays its part in giving students contact with the reality of their professional choice and the chance to intervene.

The principles of integrating teaching and research, theory and practice that underpin the concept of extension as an academic function of the university reveal a new way of thinking and doing, which is embodied in a posture of organization and intervention in reality, in which the community is no longer passive in receiving the information/knowledge transmitted by the university, but participatory, critical and constructive of possible modes of organization and citizenship (Jezine, 2004, p. 3).

Thinking about the development of the project monitors, who are also future graduates, it is important to emphasize how their collective practices and their ability to mediate and facilitate critical discussions have improved.

University extension is one of the ways to develop a complete academic education, which integrates theory and practice in communication with society and enables an exchange of knowledge between the two. Through this action, new knowledge is socialized and built (Cunha; Manchur; Suriani, 2013, p. 335).

The need to act and mediate the theatrical process required the undergraduate students to develop specific skills in active listening and non-directive intervention, giving that experience a similar character to what is experienced in an ordinary classroom. The playful and empirical nature of the Theater of the Oppressed proved to be effective in addres-

sing complex issues, suggesting new possibilities for the students' future teaching practice.

The project's teaching team also had the opportunity to design Study Management workshops during the University Weeks at the University of Brasilia. These workshops have been held periodically since the start of the Graduation Project in 2022. This activity was designed not only for the students of the schools participating in the project, but also for the community in general. The purpose of the workshop was to initiate an in-depth reflection on how students perceive the learning process. It explored the study strategies they adopt individually, addressed how they deal with mistakes and challenges in their school and academic journeys, and also investigated the interconnection between study, success and self-esteem. The workshop served as an exercise in self-knowledge for the participants.

The Study Management Workshops were based on the VARK theory. According to Baioko, et al. (2018) Vark's approach points out the sensory channels most used during learning (hearing, vision and kinesthetic) and, based on this, categorizes learning styles into Visual, Auditory, Reading/Writing and Kinesthetic. The theory has been adapted to the context of training high school students, with the aim of fostering self-knowledge, presenting the different ways of learning and demonstrating how recognizing each individual's particularity can help the study process.

The focus of the Study Management Workshop was also on the students' self-perception and self-esteem. According to Bermudez (apud, Andrade, et al., 2017), "one of the conditions for school success is maintaining good self-esteem. Positive self-esteem is associated with good performance" (BERMÚ-DEZ, apud, 2001). For this reason, during the workshop, dynamic and reflective activities were proposed, aimed at fostering an open and welcoming dialog about the insecurities

and emotional challenges that the study process can arouse, such as anxiety, self-criticism and fear of failure. These actions sought to create a safe space for the participants to share their experiences, exchange coping strategies and collectively build tools to deal with academic pressures and the challenges of secondary school, such as university entrance exams and career choices.

The monitors, in their dual role as mentors and apprentices, shared their academic careers, including study methods, challenges faced and professional expectations, establishing a horizontal dialog that encouraged the other participants to participate and share their experiences.

Photolanguage workshops were also developed, in which psychologists were invited to talk to the school students, through communication via photographs, about their prospects for the future, overcoming the difficulties related to the new high school and also about their experiences as women. The cross-cutting nature of gender in the project reveals links between race, class and social inclusion, directly impacting the mental health and self-esteem of the participants, as highlighted in the psychosocial study by Almeida et al. (2020).

By integrating a variety of skills, including pedagogical, socio-emotional and technological aspects, the Fast Girls project ensures a truly enriching experience for both the high school students and the tutors involved. The richness of these experiences is due to the collaboration of tutors with different academic backgrounds, which enables the workshops to become educational tools of great impact. The combination of theory and practice in the exact sciences, together with the perspectives brought by the pedagogical team, elevates an apparently simple activity into a moment of strengthening critical thinking and deep reflection on the reality in which these young women are immersed.

The involvement of undergraduates in the Fast Girls project, as part of the University of Brasilia's Graduates in Action Program, shows how important it is for teacher training to be inseparable from theory, practice and social commitment. For Zeichner (2010) and Gatti (2014), teacher training needs to go beyond the technical and theoretical aspects, involving insertion in real contexts marked by cultural, social and political complexities. Thus, the students in the Fast Girls in High School project experience training in which they can exercise pedagogical practices in interdisciplinary and socially challenging school environments.

The UnB's Graduates in Action Program, to which the Fast Girls in High School project is linked, aims to link academic knowledge to the reality of students in public schools. Practice in the project aims to contribute to the construction of critical and democratic pedagogical practices. The project is inspired by a Freirean conception of education, recognizing that the field of teacher training should also be a space for experiencing extension, understood as a dialogical and transformative process (FREIRE, 1996; ANDRADE et al., 2021). The activities carried out throughout the project by the undergraduate students contribute to the formation of their professional identity, broaden their ethical, political and social awareness of the reality of the school, helping them to develop knowledge and tools to face the challenges of Brazilian basic education.

The role played by the undergraduate students is in line with the proposals for teacher training put forward by authors such as Nóvoa (1992), who advocates the need to overcome the instrumental view of teacher training and build spaces for autonomy, critical reflection and the production of pedagogical knowledge. The process of preparing, running and evaluating the workshops enables this reflective and practical construction of teaching.

Furthermore, Fast Girls adopts an interdisciplinary and multi-professional approach by fostering a dialog between different areas of knowledge. Between undergraduates from different courses who work with students from Engineering, Psychology, Sociology and Design, among others, favoring the collective construction of a plural pedagogical practice, thinking about solutions to problems from different perspectives, which makes the collective attentive to the differences and diversity of school subjects. This experience breaks with the compartmentalized logic of undergraduate courses, including degree courses, and encourages teaching that is committed to inclusion, equity and social transformation.

The work of undergraduate students in public schools in the Federal District, with black and peripheral girls, positions teaching as a political and ethical action.

Educators have a duty to confront the biases that have shaped pedagogical practices in our society and to create new ways of knowing, different strategies for sharing knowledge (Hooks, 2013, p. 23).

The undergraduates develop workshops not only to teach content, but also to mobilize critical reflection, share affections, provoke reflection and other perspectives on the future. In this process, they also become researchers of their practices, appropriating active methodologies for listening, systematizing and analyzing educational experiences.

The investigative dimension of teacher training is present in authors such as André (2001) and Tardif (2002), who defend the articulation between experience, knowledge and research as pillars of teacher professionalization. By reporting, reflecting and publishing on their practice, the students of Meninas Velozes develop knowledge from experience, in practice, which qualifies their work and strengthens their insertion in the academic and scientific fields.

FINAL CONSIDERATIONS

Throughout this project, we carried out a systematic analysis of the impact of the workshops offered to the students, using post-activity reports that supported ongoing evaluations of interest arousal and knowledge appropriation. These reports were key to mapping trends and identifying which aspects of the workshops contributed most to the participants' engagement.

The workshops were carefully structured in a thematic sequence, enabling the students to explore multiple areas of knowledge.

As a central result, we observed that the effects of these interventions go beyond the moment they are applied: many students reported that they were incorporating the suggested practices on an ongoing basis, demonstrating the format's long-term effectiveness. Staying active in the project proved to be a determining factor in opening up new opportunities, not only academic ones, but also in their personal and professional careers.

The use of workshops and flipped classes, with materials made available in advance, followed by pedagogical and playful activities in the classroom, created a personalized learning environment. And continuous feedback from the participants guided fine-tuning of the methodology, allowing results to be observed in real time and teaching strategies to be adapted.

In short, this experience was an enriching intervention, capable of expanding the students' educational repertoire, broadening their mastery of diverse content and strengthening their autonomy in the teaching-learning process.

REFERENCES

ACICH, Lilian; MORAN, José (org.). **Metodologias ativas para uma educação inovadora: uma abordagem teórico-prática**. Porto Alegre: Penso, 2018.

ALMEIDA, Tania; BRASIL, Katia; VIANNA, Dianne; LISNIOWSKI, Simone; GANEM, Valéria. **A passos largos: meninas da periferia rumo à universidade e seus dilemas psicossociais**. Sociedade e Estado, Brasília, v. 35, n. 1, p. 101–134, jan./abr. 2020. Disponível em: https://doi.org/10.1590/s0102-6992-202035010006. Acesso em: 13 maio 2025.

ANDRADE Claudia Caixeta Franco; CASTELANO, Karine Lobo; MENDES, Débora Cedro; Martins, Livia Mattos; **A influência da autoestima no desempenho escolar.** Fortaleza: Revista Educação em Debate, n. 73, p. 9 - 21, 2017.

ANDRÉ, Marli E de. **Pesquisa em educação: buscando rigor e qualidade.** Cadernos de Pesquisa, São Paulo, n. 113, p. 51–64, jul. 2001. Disponível em: https://www.scielo.br/j/cp/a/TwVDtwynCDrc5VHvGG9hzDw/?lang=pt. Acesso em: 13 maio 2025.

BACICH, Lilian; MORAN, José (org.). **Metodologias ativas para uma educação inovadora: uma abordagem teórico-prática**. Porto Alegre: Penso, 2018, p. 12.

BAIOCO, Gisele Busichia; Gomes, Franciene Duarte; JARAMILkO, Juan Fernando Galindo; SILVA, Wagner José da; Zambon, Antonio Carlos. A PERSPECTIVA DA RELAÇÃO ENTRE ESTILOS DE APRENDIZAGEM E A ESTRUTURA DEMAPA CONCEITUAL. Perspectivas em Gestão & Conhecimento, João Pessoa, v. 8, número especial, p. 118-134, out. 2018.

BOAL, Augusto. **Jogos para atores e não atores**. 10. ed. Rio de Janeiro: Civilização Brasileira, 2007. 6. Rio de Janeiro: Civilização Brasileira S.A, 1991.

BOAL, Augusto. Teatro do Oprimido e outras poéticas políticas. Rio de Janeiro: Civilização Brasileira, 2005.

CÂNDA, Cilene Nascimento. Teatro-forum: propósitos e procedimentos. Urdimento. Bahia/ UFRB. n. 18, p. 121, 2012.

CUNHA, Márcia Cristina da; MANCHUR, Josiane; SURIANI, Ana Lucia Affonso. A CONTRIBUIÇÃO DE PROJETOS DE EXTENSÃO NA FORMAÇÃO PROFISSIONAL DE GRADUANDOS DE LICENCIATURAS. Ponta Grossa: **Revista Conexão UEPG**, v. 9 n. 2 - jul./dez. 2013. Disponível em: http://www.revistas2.uepg.br/index.php/conexa0. Acesso em: 10 de maio de 2025.

FREIRE, Paulo. Pedagogia do Oprimido. 17. ed. Rio de Janeiro: Paz e Terra, 1987.

GATTI, Bernardete. **Formação inicial de professores para a educação básica: pesquisas e políticas educacionais**. Estudos em Avaliação Educacional, São Paulo, v. 25, n. 57, p. 24–54, jan./abr. 2014. Disponível em: https://publicacoes.fcc.org.br/eae/article/view/2823. Acesso em: 13 maio 2025.

HOOKS, Bell. Ensinando a Transgredir: a educação como prática da liberdade. 1. São Paulo: Editora WMF Martins Torres, 2013.

JEZINE, E. As práticas Curriculares e a Extensão Universitária. Anais do 2º Congresso Brasileiro de Extensão Universitária. Belo Horizonte. 2004. Disponível em: www.ufmg.br/congrext/Gestao/Gestao12.pdf. Acesso em: 10 de maio de 2025.

RIBEIRO, Paula Regina Costa; SILVA, Fabiane Ribeiro da. **Trajetória de Mulheres na Ciência: "ser cientista" e "ser mulher"**. Ciênc. Educ., Bauru, v. 20, n. 2, p. 449-466, 2014.

TARDIF, Maurice. Saberes docentes e formação profissional. Petrópolis: Vozes, 2002.

VALENTE, José Armando. A sala de aula invertida e a possibilidade do ensino personalizado: uma experiência com a graduação em midialogia. Metodologias ativas para uma educação inovadora: uma abordagem teórico-prática. Porto Alegre: Penso (2018): p. 26-44.

ZEICHNER, Kenneth M. Repensando as conexões entre a formação na universidade e as experiências de campo na formação de professores em faculdades e universidades. Educação, Santa Maria, v. 35, n. 3, p. 479–504, set./dez. 2010. Disponível em: https://periodicos.ufsm.br/reveducacao/article/view/2357. Acesso em: 13 maio 2025.