

Área: EDU

Bringing Girls Closer to Science and Technology: A Report of Experiences.

Laura S. Sehnem (TM),¹ Leticia B. Gasparini (TM),¹ Jamilly Vitória S. Borges (TM),¹ Maria Eduarda F. Souto (TM),^{1*} Ritheli Bercheli (TM),¹ Berenice da S. Junkes(FM),¹ Renata P. Ribeiro(FM).¹

laurassehnem@gmail.com; mariaeduardafloresdesouto@gmail.com.

¹*Departamento Acadêmico de Linguagem, Tecnologia, Educação e Ciência, IFSC*

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Highlights

The IFSC/UFSC project encourages girls from public schools in science and technology through workshops and visits on cosmetic chemistry and nanotechnology, boosting confidence and interest in STEM.

Abstract

Currently, women in science represent only 28% of researchers worldwide, according to a Unesco report from the United Nations agency (ONU) (Chérolet, 2023). Faced with this scenario, the purpose of this project was to encourage the participation of girls in STEM fields (Science, Technology, Engineering, and Mathematics), through hands-on workshops, lectures by women scientists, interactive activities, and the production of cosmetics, which promote curiosity, self-confidence, and female leadership. The project aimed not only to present science as a possible career path, but also to deconstruct gender stereotypes that have historically distanced girls from these fields. By creating inspiring environments, the goal was to contribute to the formation of future scientists, increasing female representation and strengthening equity in the scientific field. During the execution of the project, lectures, workshops, short courses, and laboratory activities were held for girls from the 9th grade of Elementary School to the 3rd grade of High School, enrolled in public schools in the metropolitan region of Florianópolis/SC. Teachers and students from the Federal Institute of Santa Catarina (IFSC) - Florianópolis Campus, enrolled in the Technical Course in Chemistry Integrated with High School, collaborated in the development of the activities. Among them, the notable activities included guided tours to IFSC's Chemistry laboratories, workshops with the production of cosmetics, and interactive sessions. In the workshops, moisturizing creams, body scrubs, and bath bombs were produced. In addition, it is important to highlight the visit to the UFSC laboratories, where the public school students had their first contact with nanotechnology applied to cosmetics through nanoemulsion. On another occasion, they participated in a meeting at the company NanoScoping, where they produced a facial serum with nanotechnology in its active ingredients. This contact with scientific knowledge enabled the girls to approach science, showing that it is accessible and that these professional spaces also belong to them. The effective participation of public school students (30 students) in the activities, as well as the enthusiasm shown, were indicators that the project achieved its objectives. The practical activities and experiences provided have significantly contributed to bringing them closer to the scientific and technological universe, demonstrating that this path is possible and attainable. It is worth noting that the project does not end here, it will last three years (2025-2027), allowing the strengthening and expansion of its impacts over time.

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