L'Oréal For Girls in Science-Puerto Rico
2023-2024:
Final Report
L’Oréal For Girls in Science-Puerto Rico” (FGIS-PR) is a program in partnership with L’Oréal Caribe and Ciencia Puerto Rico (CienciaPR), aligned with L’Oréal’s global corporate social responsibility program “For Girls and Women in Science,” which seeks to encourage and empower high school girls to choose careers in science. For the 2023-2024 edition, the program recruited 20 young female Semillas de Triunfo alumnae in grades 9th to 11th who reside in Puerto Rico, and 10 Latina in STEM role models who serve as mentors.

To achieve the goals of the programs, the girls participate in a curriculum, which includes: training to become mentors for other girls, and science clubs with science challenges, interactive lab visits and inspirational talks by women in STEM. In addition, girls receive one-on-one support from an assigned women in STEM mentor with whom they work together on an academic development plan to enable them to set their goals and define their career in STEM.

Goals

- Increase interests and skills in STEM
- Creating a STEM vocation
- Develop self-confidence and legitimacy
- Building networks and connections
Outputs

During the 2023-2024 cycle, L’Oréal For Girls in Science-Puerto Rico (FGIS-PR) was able to produce the following outcomes:

Events

- **Program orientation** - An online orientation was offered to all girls interested in applying to the program. The objectives and requirements of the program were discussed in order for the girls to make a decision whether to apply or not.
- **Day 1: Program Orientation & Mentoring Workshop** - The 20 participants received an online program orientation and also participated in a mentoring workshop with a resource from the Girls Scouts Caribbean Council. They also worked with staff to get prepared for their participation in the Seeds of Success program workshops as peer mentors.
- **Seeds of Success workshops** - All the 20 participants attended one of the four workshops of the Seeds of Success program in the regions of San Juan, Humacao, Ponce and Mayagüez. During the activity, they presented their STEM Ambassador Projects and mentored the girls at their table to clarify the doubts about their projects.
- **Online peer-mentoring session** - The Seeds of Success program held a group mentoring session along with the 115 girls in the program and their 115 STEM mentors. In this activity, the 20 FGIS-PR participants had the opportunity to receive a lecture on time management and to continue mentoring girls about the STEM Ambassador Project.
- **Orientation and mentorship workshop for volunteer STEM mentors** - The 10 STEM mentors selected to participate in the program received an orientation as well as a mentoring workshop before meeting their mentees in person.
- **Science Club 1** - A total of 17 of the 20 participants attended the first face-to-face activity of the FGIS-PR program at The Polytechnic University of Puerto Rico. They participated in a team building activity facilitated by the L’Oréal Caribe team. They also participated in a STEM activity related to cosmetics chemistry which was facilitated by the team of non-profit Science and Heels. Also, girls visited a virtual reality and tv lab on site and worked in groups in a Science Challenge on renewable energy and engineering design. In addition, the participants met their mentors in person. Three participants where unable to attend but all of them received by mail all the program materials and will participate in an online remedial workshop.
- **Festive meeting** - In this optional activity, 13 participants had the opportunity to celebrate in-person with girls of the Seeds of Success program.
- **Science Club 2** - The participants met virtually to receive an inspirational talk from L’Oréal Puerto Rican scientist, Daniella González Toro. Also, participants started their mentoring process to create their individual academic plan along with their assigned mentors.
Events
- **Checking mentorship meeting**: The participants, along with their mentors met virtually to receive a review and feedback on their individual academic plans.
- **US colleges workshop**: Girls received a workshop from collaborators Latinas in STEAM about the application process of universities at the United States.
- **Closing ceremony**: During the closing ceremony at the University of Puerto Rico, Rio Piedras Campus, the program presented its outcomes and the participants achievements.

Program materials
- **Website**: We updated the landing page for the program at CienciaPR’s website.
- **L’Oréal For Girls in Science-Puerto Rico Welcome Kit**: The 20 participants received a welcome Kit with program guides, educational materials and one hands-on STEM activity to do at home.
- **Program guides**: We developed the 2023-2024 guides for participant girls and mentors.

Metrics

During the 2023-2024 cycle, L’Oréal For Girls in Science-Puerto Rico (FGiS-PR) was able to obtain the following metrics:

Application process and recruitment
- **Number of applicants**: 32 9th to 11th grade girls from Puerto Rico applied to the program
- **Girls’ recruitment**: A selection committee recruited 20 girls from grades 9-11, to participate in the program
- **Women STEM mentor’s recruitment**: 10 Latinas in STEM and role models for online mentorship program (2 girls per mentor)
- **Additional recruitment of Latinas in STEM Role models**: We recruited additional women in STEM role models for our activities including: Jaylene Álvarez, Janice Lozada, Dariana Morales, Mariangeli Moreno and María López (Science and Heels), Jemaris Martes (Glenn International), Loraima Jaramillo (Luma energy).

Participation and retention
**Girls and mentor's participation**: All girls and mentors participated in scheduled program activities.
**Girls and mentor's retention**: 19 girls and 10 mentors completed the program.

Partnerships
For this cycle, we received the support and collaboration of the Puerto Rico, Science, Technology and Research Trust, The Polytechnic University of Puerto Rico and Glenn International. We continued the collaboration with non-profits Science and Heels and Latinas in STEAM.
Surveys

- **Participant girls**: The 20 participants were given a pre-survey and post-survey related to the objectives and pillars of the program which seek to: increase STEM interests and skills, create a vocation in STEM, develop self-confidence-legitimacy as peer-mentors and build networks and connections.
- Of the 20 participants, 9 completed the pre-survey and 19 completed the post-survey which were used to measure whether the objectives and pillars of the program were met.
- All survey items regarding the satisfaction of program objectives and activities received a median value of 4 or higher on a scale of 1-5, with 5 being the most positive score.
- Overall scores for the entire survey were **significantly higher** after the program than before (Pre average = 134.5, Post average = 148.75, p-value = 0.0078, n = 8). For the purpose of the graph analysis, we only used the answers of the 8 participants who completed both the pre and post surveys (See Graphic 1).

**Increase STEM interests and skills**

- The 19 participants who completed the post-survey indicated that both, the visit to the virtual reality laboratory and the "Science Behind the Lipstick" workshop, were activities that increased their interest and knowledge in STEM.
- The survey results also indicate that participants believe the Science Challenge on renewable energy and engineering design gave them the opportunity to develop solutions to a current societal problem.

**Create a vocation in STEM**

- Girls indicated that after working in the development of an individual academic plan, they have a clear idea of their next steps and abilities they need to cultivate in order to have a successful college admission.
- According to the results, working on their personal academic plan with their mentors and attending the Charla Juntas Podemos webinar were among their favorite activities.

**Develop self-confidence-legitimacy as peer-mentors**

- After completing the FGIS-PR program, girls indicated that they feel confident as role models for other girls interested in STEM.
- One of the girl's favorite activities to become a mentor and role model were the Seeds of Success workshops in which they mentored girls in person.

**Build networks and connections**

- After completing the program, girls have a clear idea of what a sponsor is and the benefits of having a support network.
- Meeting other participants and different women in STEM, and sharing with L’Oréal/CienciaPR staff were among the opportunities that girls valued.
- Part of the feedback from the participants' survey included that they wished to have more in-person activities, similar to the networking at the closing ceremony, in order to have more interaction among the participants.
Participant’s feedback:

“The program helped me enhance my leadership skills by participating in mentoring sessions and talks with various scientists, who were key in developing my self-confidence and obtaining connections that will be of great help on the path to achieving my goal.”

“Participating in the FGIS-PR program was a fun experience and a great contribution to my development as a high school student who aspires to pursue a career in STEM.”

“Being a participant in the L’Oréal For Girls in Science program has been a wonderful experience for me, full of learning, but above all, it has been crucial in defining the career I want to pursue.”

“The unconditional support from the mentors and coordinators is indispensable and is one of the factors that pushes me forward.”

“Through this incredible journey, I have discovered not only the infinite possibilities that the world of STEM offers but also my own capacity to achieve them. Each experience and connection forged has filled me with inspiration and determination to move forward.”
Mentoring

Science Club 1 & 2

My Beauty Journey
From School to Industry & From Innovation to Market
For Girls in Science (FGIS)

Por: Dayvella C. Gandara-Toro
Closing event
Closing event