



RIGHT TO PLAY
PROTECT. EDUCATE. EMPOWER.

Learning Study Summary for Plug-in-Play

Program Description

Plug-in-Play aims to improve the quality of education for over 60,000 children in Rwanda from 2021 to 2024 by introducing learning through play with technology. Students aged 6 to 12 are exploring the world with their hands and developing academic and holistic skills as they practice STEM skills, like making, coding and robotics.

By improving education centered on STEM subjects, Plug-in-Play supports the Government of Rwanda's shift towards a knowledge-based economy.

Study Purpose

This qualitative study provides insight into the experiences of teachers and students who are learning through play with technology. It explores evidence that the approach supports the development of students' holistic skills.



I would like to continue studying science and technology subjects in the future. I would like to be a scientist who can create and discover different things.

– Female student

KEY FINDINGS

- 1 Teachers value peer learning**
Teachers want more opportunities to learn from each other and exchange best practices for the learning through play approach, engaging students with different abilities, and strengthening digital skills.
- 2 Students and teachers are motivated to learn through play**
Students feel excited about their lessons when teachers, motivated by coaching and support from head teachers, create positive classroom environments.
- 3 Students enjoy playful and participatory lessons**
Students are less bored in class and enjoy opportunities to be hands-on, interact with other students, and ask the teacher questions while learning STEM subjects.
- 4 Students are strengthening their holistic skills**
Students are developing leadership, collaboration, critical thinking, and communication skills with opportunities for groupwork and brainstorming to discover solutions.
- 5 Groupwork fosters inclusion and gender equality**
Girls and boys and students with different learning needs, who would usually work separately, collaborate through group work. Students needing additional support learn from their peers, and girls feel empowered as group leaders.
- 6 STEM subjects require more class time**
Teachers find there is not enough time to cover all subjects, provide feedback, and arrange group activities during a 40-minute class. Some teachers increased their lesson time to an hour.



LESSONS LEARNED

- 1 Continuing professional development and peer learning are critical for teachers' effective integration of play-based learning. To continue effectively promoting playful and inclusive classrooms, teachers will need more opportunities to learn from one another about STEM subjects, supporting students with different learning needs, and managing larger classes.
- 2 STEM subjects could be less appealing for students who had trouble understanding the instructions because they contain English terminology. Some teachers explained STEM terms in the local language. Addressing this language barrier will be critical for scaling up the project.
- 3 Engagement sessions to help parents become familiar with the learning through play method and the laptops their children use for STEM subjects will allow them to better support their children's studies at home, leading to better learning outcomes.
- 4 Using play, students have a positive attitude toward learning, leading to better school attendance, completion, and an interest in pursuing a career in technology or science.

RECOMMENDED NEXT STEPS

- 1 Engage in advocacy activities with the Ministry of Education to draw attention to the ways that a lack of language-appropriate teaching materials prevents students from fully engaging in learning.
- 2 Set up more opportunities for teachers to exchange best practices on implementing the play-based approach, supporting students with different learning needs, and managing larger classes.
- 3 Provide teachers with opportunities for continuing professional development on STEM skills.
- 4 Explore the possibility of implementing more parent engagement sessions.

"One night, my parents found our home illuminated with light, despite not having electricity. They were curious about what had happened, so I explained to them that in class we had learned how to produce light using wires, radio batteries, and bulbs. They were delighted to see that we were not only learning new things but also able to apply them independently."
- Female student

The LEGO Foundation