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Timeline

2022-2025

Study Status

In Progress

Study Type

Randomized Evaluation

Sample Size

269 secondary school-age students

Research Implemented by IPA

No

STEAM Secondary Education to Increase Learning and Skills Development for Students in Belize



Itz'at STEAM Academy ©Livia Minoja

Researchers are partnering with IPA to conduct a randomized evaluation to assess whether a secondary school in Belize with a science, technology, engineering, arts, and math (STEAM) curriculum improves students' holistic learning experiences and

cognitive skills development.

Evidence from high-income countries suggests that integrating STEAM into the curriculum can provide students with practical, holistic learning experiences that would prepare them for employment.¹ In Belize, Itz'at STEAM Academy is a secondary school focused on STEAM instruction, with students completing projects and community engagement activities for real-world learning. It is tailored to students who traditionally have difficulty accessing quality education in the existing school system, like girls, students with special education needs, and students from overlooked socioeconomic backgrounds.²

Researchers are partnering with IPA to conduct a randomized evaluation to measure whether Itz'at STEAM Academy's STEAM curriculum improves students' practical skills development and holistic learning experiences. For the 2023 cohort, 124 applicants to Itz'at Academy were randomly selected to either be admitted to the school or not be admitted and serve as the comparison group. For the 2024 cohort, 145 applicants were randomly selected to either be admitted to the school or not be admitted and serve as the comparison group. IPA will be collecting data to measure indicators including academic performance, growth mindset, teamwork skills, confidence in math and science, socio-emotional outcomes, learning styles, and other demographic characteristics.

Results will be available in 2025.

Sources

¹ Weyer, Matt, and Mary Dell'Erba. "Research and Policy Implications of STEAM Education for Young Students. Policy Brief." Education Commission of the States (2022).

Harris, Anne, and Leon R. De Bruin. "Secondary school creativity, teacher practice and STEAM education: An international study." *Journal of Educational Change* 19 (2018): 153-179.

² Katherine Ouellette, "A revolutionary, bold educational endeavor for Belize," MIT News, <https://news.mit.edu/2024/revolutionary-bold-educational-endeavor-belize-0326>

Implementing Partner



Itz'at STEAM Academy

Funding Partner



Belize Ministry of Education, Culture, Science and Technology