

Developing YOUth! Preliminary Survey Report

Research and Evaluation Executive Summary

Goal

This project is a preliminary analysis of the first two years of data as part of the ongoing Developing YOUth! study. In particular, we wanted to see if there were any differences in STEM career interests of graduates of the Science Minors and Achievers (SMA) program versus non-graduates.

Why

We wanted to see if our study design was working and if we needed to make any changes in subsequent data collection methods. The findings ended up being interesting enough that we wanted to share them with the wider community.

What

The Developing YOUth! Project is a 5+ year study of graduates of the SMA program. We are following them through their college career using annual surveys and monthly cellphone text messaging surveys. A smaller group is also being interviewed annually. We are looking at the impact of the program on STEM career interests and relationship with science through a cultural lens.

Who

We surveyed 132 youth across two cohorts (cohort 1 = 2016 graduates, cohort 2 = 2017 graduates). The treatment group consists of graduates of the SMA program. The control group consists of youth who have visited a science museum in the last year and graduated high school at the start of that summer.

How

First year surveys were given online and on paper to all participants. Second year surveys were given online after contacting participants via email and text messaging.

When

Data was collected in the summers of 2016 and 2017.

Results

Results show the control group's STEM career interest dropped by 34% after their first year of college and the treatment group (program alumni) dropped by 10% (Table 1).

Future Implications

On average, STEM career interests of new college students in the United States tends to

drop by a third. These results suggest that the SMA program may help attenuate that decline.

The study will continue for at least three more years, with an additional cohort recruited in summer 2018 to increase the sample size. Interviews are also ongoing and in 2018 will focus partly on the transition period between high school and college and how the SMA program may impact it with a focus on cultural issues.

These results have been peer reviewed. They were accepted for presentation at the 2018 International Conference of Learning Sciences and will be published in their proceedings.

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Table 1. Reported interest in STEM careers

