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Staying on Track: The Effects of Pre-College Tracking on Academic Self-Concept of College Students

Francesca Varriano

Introduction

This study focused on the potential impact of **tracking** from pre-college schooling on college students' **academic self-concept**. Tracking is a widely accepted and used method for teaching children to their specific ability level, which allows teachers to not have to slow down or speed up the pace of the learning material at the detriment of other students. However, there are many critics of this practice, who claim that tracking can lower the self-esteem of students. This is related to a concept called the **Big-Fish-Little-Pond Effect**.

Research Question:

How might tracking students on a high track in K-12 schooling positively or negatively affect their academic self-concept?

Academic self-concept is defined as the perception that a student has about his/her own academic abilities (Nagengast, 2013).

Tracking is defined as the process of separating students by academic ability into groups/classes/levels.

The **Big-Fish-Little-Pond effect** is based on the idea that students engage in a social comparison process with their peers when evaluating their own academic abilities (Loyalka, 2018).

Results

Figure 2: Means and Standard Deviations

	Mean	Standard Deviation
Self-Doubt Regarding Abilities	3.0490	0.79327
Study Habits	3.4408	0.36235
Rewarding Efforts	3.7200	0.63425
Self-Confidence in Academics	3.0343	0.76310

Methods

- Population: 35 students from colleges and universities in the United States
- Survey: through Qualtrics
 - Academic Self-Concept Scale
 - Likert scale: five-point scale (1 = strongly disagree, 5 = strongly agree)
 - Demographic questions
 - Gender Identity (male: 11.4% female: 88.6%)
 - Ethnicity/Race (American Indian or Alaskan Native: 1, Asian: 6, Hispanic, Latinx, or Spanish Origin: 6, White: 28)
 - Major (STEM: 25, Humanities: 8, Both:1, Undeclared: 1)

The data from this survey was interpreted by analyzing the questions in four categories (Cokley & Patel, 2007). The reliability of these categories is shown in figure 1 (below). They are (1) Self-Doubt Regarding Abilities, (2) Study Habits, (3) Rewarding Efforts, and (4) Self-Confidence in Academics

(1) I feel like a failure sometimes

(2) I don't study enough

(3) My school efforts are rewarded

(4) I am confident while taking tests

Figure 1: Cronbach's Alpha

Self-Doubt Regarding Abilities	0.914
Study Habits	0.711
Rewarding Efforts	0.885
Self-Confidence in Academics	0.829

Discussion

The results of this study were unexpected based on the implications that tracking has had on students. For each of the four sub-categories, the means were shown to be very neutral, despite the fact that the majority of students surveyed being tracked into an advanced track (e.g., Advanced Placement, International Baccalaureate Program) during their K-12 schooling experience. This is an interesting discovery because it could mean that these students who were initially big fish in little ponds are now little fish in big ponds. Therefore, their academic self-concepts are more average in their college experiences.

Implications

This study shows the effects of high tracking on college students. The results of this study seem to support the Big-Fish-Little-Pond phenomenon. For future research into this topic, a larger sample size would help in determining if this trend of average academic self-concept in former highly tracked students holds up, as well as providing more information on whether demographic factors such as race and gender identity play a role in academic self-concept of highly tracked students.

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