

Examining the Big-Fish-Little-Pond and Upward Comparison Effects Using Longitudinal Learning Achievement

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Since tracking became a global trend, numerous countries have implemented ability grouping in elementary and middle schools. Under these circumstances, whether students should attend a standard school or a highly selective school has become a crucial issue. Previous studies investigating the big-fish-little-pond effect (BFLPE) inferred that studying at an elite school is not ideal because students with similar abilities from higher-track schools tend to have lower academic self-concept and achievements compared to their counterparts from lower-track schools. However, studies examining upward comparison effects found that students who compared themselves with academically advanced peers performed better in various academic domains, which suggests that students should attend prestigious schools. These conflicting results indicate that the impact of tracking on learning achievement remains unclear. Additionally, previous studies on both effects did not use appropriate variables to measure long-term academic achievement. This study employs two techniques based on the results of previous studies to increase current understanding of both effects: (1) Two indices for assessing longitudinal academic achievements, that is, students' grade point average (GPA) and standardized college entrance examination, are used to investigate the BFLPE and the upward comparison effect. (2) Two methods of data analysis, that is, an overall-school analysis and an adjacent-school comparison, are used to identify differences in academic achievement among students with a similar ability comprising the lower end of a higher-track school and their counterparts from the higher end of a lower-track school. When GPA was the dependent variable, the results of the overall-school analysis and the adjacent-school comparison supported the BFLPE, but not the upward comparison effect. By contrast, when the standardized test score was the dependent variable, the results of the overall-school analysis and the adjacent-school comparison revealed an absence of both the BFLPE and the upward comparison effect. The results of this study suggest that studying at an elite school induces neither the BFLPE nor the upward comparison effect. Students of similar ability, who attended schools with different rankings, displayed no differences in their longitudinal academic achievement. Therefore, fighting to qualify for a higher-ranked school regardless of all other considerations is not required. The results of this study can be further explored in future Western studies.

Keywords: *academic achievement, big-fish-little-pond effect (BFLPE), hierarchical linear modeling (HLM), social comparison theory, upward comparison effect*