

Causal ordering of grades and self-esteem

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Abstract

The relationship between self-esteem and grades has been one of the central issues of research in the educational context. The goal of the study was to establish a causal ordering between self-esteem and grades in a longitudinal study. We accomplished this goal by using a cross-lagged two-wave design panel design. This design has been frequently used to examine relationships between variables for which a reciprocal relationship is hypothesized. We tested four hypotheses: H₀: Self-esteem do not have a positive effect on grades, neither does grades on self-esteem; H₁: Self-esteem have a positive effect on grades, but grades does not have a positive effect on basic psychological needs; H₂: Grades has a positive effect on self-esteem, but self-esteem do not have a positive effect on grades; H₃: Grades and self-esteem have a reciprocal relationship: Self-esteem predict grades, and grades predicts self-esteem. A total of 1789 students (51% males) from seven high schools took part in this study. Participants completed the questionnaires at the beginning and at the end of the semester. The fit indices were $\chi^2(1788, 25) = 701.496$ ($p < 0.001$), RMSEA = .084 (.079, .090), CFI = .947, TLI = .932. Grades predicted self-esteem $\beta = .177$ (.117, .237) and self-esteem did not predict grades $\beta = .002$ (-.015, .019). In the light of the evidence, we accepted the H₂ hypothesis. In conclusion, we may affirm that, during an academic year, grades predicts self-esteem.

Keywords: causal ordering, cross-lagged, grades, self-esteem.