

Grit Versus Aptitude: Relative Influence of Effort and Intelligence in Academic Success

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In educational research, an age-old question has remained unanswered: Does IQ or hard work matter more in predicting success in school? Intellectual gifts have been studied extensively, but other non-cognitive factors contributing to success have been less carefully examined. One factor is “grit”, defined by Duckworth et al (2007), as “perseverance and passion for long-term goals.” This research studies the impact of grit, or perseverance for long-term goals and intelligence on middle school students’ GPAs.

We hypothesized that change in grit over a span of two years would be a better predictor of GPA than aptitude (New York State Education Department Exams). Intelligence was measured using state test exams administered annually. Surveys (Duckworth’s Grit Survey, the Ten-Item Personality Inventory, the Brief Self-Control Scale, and the Eysenck Youth Impulsivity Scale) were distributed to 434 fifth- and seventh-graders in 2010 to measure factors such as grit and self-control. In 2012, 289 of those students were re-surveyed.

Of those tested twice, the best predictor was the student’s previous GPAs, but aptitude was also a powerful influence. However, grit still displayed statistical significance in predicting GPA, especially in English classes. In both regressions, grit was more strongly linked to English than math.

Alexandra Tse
Lawrence High School