

'Grit' adds little to prediction of academic achievement

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Larkmead School. Credit: CC-BY-SA-2.5,2.0,1.0

Personality characteristics - especially conscientiousness - have previously been shown to have a significant but moderate influence on academic achievement. However, a new study from the Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London, suggests that 'grit', defined as perseverance and passion for long-term goals, adds little to the prediction of school achievement.

The study authors point out that previous research, indicating small associations between grit and academic achievement, has relied on highly selected samples such as spelling competition finalists and

teachers, which may have led to stronger associations between grit and achievement in later life.

This new study, which used a sample of 4,500 16-year-old twins, found that aspects of personality predict around six per cent of the differences between GCSE results and, after controlling for these characteristics, grit alone only predicted 0.5 per cent of the differences between GCSE results.

According to the researchers these findings, published today in the *Journal of Personality and Social Psychology*, warrant concern given the present emphasis placed by education policymakers on teaching grit to pupils, both in the UK and in the US.

This research is the first to investigate the genetic and environmental origins of grit, as well as its influence on academic achievement, within a large representative UK sample of 16-year-olds.

In the study, the 'Grit-S' questionnaire was used to measure perseverance of effort and consistency of interest at the age of 16. Twins rated the extent to which they agreed with statements such as 'Setbacks don't discourage me' (perseverance) and 'I have a difficulty maintaining my focus on projects that take more than a few months to complete' (consistency of interest). The 'Big Five' Personality questionnaire was used to assess personality traits, comprising those highlighted by psychologists as the most important: extraversion, agreeableness, conscientiousness, openness and neuroticism.

In addition to measuring the association between grit and academic achievement, the researchers also analysed the extent to which grit is 'heritable' (i.e. the extent to which genes contribute to differences between people in their levels of grit). Some scientists have previously suggested that grit may be more malleable than other predictors of

academic achievement, such as socioeconomic status and intelligence, which has led to proposals for grit training programmes in schools.

This new study found that grit was about as heritable as other personality traits, with DNA differences explaining around a third of the differences between children in levels of grit.

The study's first author, Kaili Rimfeld from the Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London, said: 'Until now there has been very little evidence about the origins of differences between children in grit and its influence on academic achievement, despite the fact that it plays an important role in UK and US education policies.

'Our study suggests that grit adds little to the prediction of [academic achievement](#) when other personality factors are taken into account.

'This does not mean that teaching children to be grittier cannot be done or that it is not beneficial. Clearly children will face challenges where qualities of perseverance are likely to be advantageous. However, more research into intervention and training programmes is warranted before concluding that such training increases educational achievement and life outcomes.'

Provided by King's College London

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