

Emotional Intelligence

Social and emotional abilities are important determinants of success at school

Ability, as measured by prior attainment, is not the only determinant of examination performance. Cambridge Assessment's research shows that some aspects of trait emotional intelligence are significantly related to attainment in GCSE subjects, and predict performance over and above that accounted for by students' prior attainment. Notably, the emotional intelligence subscales of self-motivation and low impulsivity were found to be significant predictors of attainment at GCSE in almost all subjects investigated.

Trait emotional intelligence (trait EI) covers a wide range of skills and personality dispositions, such as motivation, confidence, optimism, adaptability and coping with stress. Many primary and secondary schools in England are currently involved in a government initiative to develop the emotional, social and behavioural skills of their pupils, through programmes such as 'Social and Emotional Aspects of Learning' (SEAL), with the intention of improving academic attainment as well as behaviour. The objective of Cambridge Assessment's research into EI was to investigate whether relationships exist between trait EI and progress in different subjects at secondary school.

Trait EI is defined for the purpose of the research as: *"A constellation of behavioural dispositions and self-perceptions concerning one's ability to recognise, process and utilise emotion-laden information."*¹

Trait EI was measured using the Trait Emotional Intelligence Questionnaire², which measures people's perceptions of their own abilities by rating their agreement with 153 statements. Analysis of the questionnaire responses generates a global emotional intelligence score, as well as scores for 15 subscales, which are detailed in the table below. The subscales are organised into four factors of wellbeing, self-control, emotionality and sociability.

Emotional Intelligence subscales

Subscale	High scorers perceive themselves as...
Adaptability	...flexible and willing to adapt to new conditions.
Assertiveness	...forthright, frank, and willing to stand up for their rights.
Emotion perception	...clear about their own and other people's feelings.
Emotion expression	...capable of communicating their feelings to others.
Emotion management	...capable of influencing other people's feelings.
Emotion regulation	...capable of controlling their emotions.
Impulsiveness (low)	...reflective and less likely to give in to their urges.
Relationships	...capable of having fulfilling personal relationships.
Self-esteem	...successful and self-confident.
Self-motivation	...driven and unlikely to give up in the face of adversity.
Social awareness	...accomplished networkers with excellent social skills.
Stress management	...capable of withstanding pressure and regulating stress.
Empathy	...capable of taking someone else's perspective.
Happiness	...cheerful and satisfied with their lives.
Optimism	...confident and likely to "look on the bright side" of life.

Low impulsivity and self-motivation are highlighted in the table because they were found to be the most significant predictors of attainment in almost all the GCSE subjects investigated in the study.

A number of key findings emerged from the study:

- The self-motivation and low impulsivity subscales of trait EI were significant predictors of attainment in almost all of the sciences investigated (after controlling for prior attainment at Key Stage 3 (KS3)). The degree to which other emotional intelligence subscales predicted attainment in science varied by specification.
- The emotion expression, emotion management and assertiveness subscales were not significant predictors of progress in any science GCSE.
- The self-motivation and low impulsivity subscales were also significant predictors in almost all of the non-science GCSE subjects investigated: English, English Literature, Art and Design, Drama and Mathematics. The exception was GCSE French, where only low impulsivity predicted progress.
- However, for GCSE Mathematics, students who scored highly on the emotion expression, social awareness and emotion management subscales were likely to achieve less than would be expected given their KS3 attainment.
- Almost all EI subscales and factors (except emotion expression, social awareness, emotion management, adaptability and assertiveness) were predictors of mean GCSE attainment, after controlling for KS3 performance.
- Trait EI may have a larger effect where prior attainment is lower.

Implications

The results of this report suggest that academic ability is not the only predictor of educational achievement and that emotional intelligence has a very important effect on learning. This is supported by research from the United States³ and Australia⁴, which has shown that interventions to improve the emotional and social skills of adolescents do result in improved educational outcomes, suggesting that the relationship is a causal one. Therefore, attempts to improve the emotional and social skills of British schoolchildren should be worthwhile and may also be more effective than concentrating solely on curriculum initiatives.

The findings of this research complement previous Cambridge Assessment research studies, which have found that factors such as ability are not the only predictors of attainment. It is the combination of ability, individual characteristics, home background, type of school attended and social, behavioural and emotional aspects that is important.

¹ Petrides, K.V. & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences*, **29**, 313-320.

² Petrides, K.V. (2001). *A psychometric investigation into the construct of emotional intelligence*. Doctoral dissertation. University College London, London, England.

³ Catalano, R.F., Berglund, M.L., Ryan, J.A.M., Lonczak, H.S. & Hawkins, J.D. (2004). Positive Youth Development in the United States: Research Findings on

Evaluations of Positive Youth Development Programs. *American Academy of Political and Social Science*, **591**, 98-124.

⁴ Bernard, M. (2006). It's time we teach social-emotional competence as well as we teach academic competence. *Reading and Writing Quarterly*, **22**, 2, 103-119.

Context of research

“Can trait Emotional Intelligence predict differences in attainment and progress in secondary school?”

Cambridge Assessment undertook this large-scale questionnaire survey of British students aged 14-16 to determine whether performance in different GCSE subjects is associated with candidates' levels of emotional intelligence, after taking into account prior attainment at age 14. Responses to a Trait Emotional Intelligence Questionnaire from almost 2000 OCR science candidates from 31 schools were analysed. The questionnaires were completed prior to the June 2007 examination session and questionnaire scores were later matched to participants' Key Stage 3 results and GCSE grades. The first phase of the research investigated the relationship between trait EI and performance in six different science specifications. A second phase of the study looked at the relationship in a wider range of GCSE subjects taken by the students in the sample. In particular, it addressed subjects such as English, Drama and Art and Design, which might be expected to be more affected by EI.

Further information

Full details of the emotional intelligence work can be found in the full report available at:

www.cambridgeassessment.org.uk

Contact: Dr Carmen Vidal Rodeiro, Research Division

Cambridge Assessment, 1 Regent Street, Cambridge, CB2 1GG

Email: Vidal.C@cambridgeassessment.org.uk

Tel: 01223 552597