Mental Toughness and Moods as Predictors of Academic Success

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Aims

• Existing research often shows focus on negatives – risk factors – for students joining university

• Current study focuses on factors that lead to success (not just ‘absence of risk factors’)

• Identifying internal factors – individual differences – that might affect student success
Rationale

- Mental toughness can be a positive predictor of success (Crust et al. 2014), and previous research within HE suggests that Mental Toughness improves students’ ability to deal with negative feedback, and to progress and succeed academically.

- Males show higher levels of MT than females – or they may be expressing mental toughness in different ways (Nicholls et al. 2008).

- However, the bulk of such research has been conducted with students in courses such as Sports Science (e.g. Clough et al. 2002).
Rationale

• A review (Valiente et al., 2012) found that negative emotions are negatively associated with academic achievements

• Very few studies look at positive emotions

• Studies predominantly look at school children (e.g. Gumora & Arsenio, 2002)
Method - participants

• 120 females (18-48)
• 41 males (18-28)

• Participants were all psychology students, given Research Participation Scheme points for participation
• Consent to access their grades was requested, as well as contact details so they could be contacted for future (qualitative) data collection.
• Demographic information: Age, gender
Method - materials

- Mental toughness Questionnaire (MTQ48; Clough et al. 2002)
- 48 items, subscales:
  1. Commitment (the level of engagement with a task)
  2. Control of Emotion
  3. Control of Life
  4. Challenge (sees adversity as opportunity for self-development)
  5. Confidence in Abilities
  6. Interpersonal confidence

This has a 5 point Likert scale where participants rate a number of statements on a scale of 1 (Strongly disagree) to 5 (strongly agree).
• 36 = confidence in abilities
• 37 = control of emotions
• 38 = confidence in interpersonal relationships
• 39 = commitment
• 40 = challenge
• 41 = control of life
Method - materials

• Positive and Negative Affect Scale (PANAS; Watson et al. 1988).

• 10 positive mood descriptors
• 10 negative mood descriptors

• how closely they reflect their mood state on a scale of 1 to 5, where 1 = slightly/not at all and 5 = extremely.

• NB – the PANAS measures actual emotion, whereas the MTQ48 measures ‘control of emotion’
Indicate to what extent you generally feel this way, that is how you feel on average . . .

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Method - materials

• ‘Academic Achievement’ defined by mean grade at the end of that academic year
Results – all participants

Pearson’s correlations (with Bonferroni corrections) revealed that:

- All students showed a *positive* correlation between Academic Achievement and Control of Life

Also:

- *Positive* correlation between Control of Life and Age
- *Positive* correlation between Age and Positive Affect
- t-tests (with Bonferroni corrections) also found no gender difference on any subscale of the MTQ48 or the PANAS
Results – multiple regressions

Predictors:
MTQ48 subscales
PANAS subscales

Outcome:
Academic Achievement

Two were conducted, one for males and one for females.
Results – Does Mental Toughness predict Academic Achievement?

• In Female students Control-of-Emotion \textit{negatively} predicted Academic Achievement

• In Female students Confidence-in-Abilities \textit{negatively} predicted Academic Achievement

• In Male students Commitment \textit{positively} predicted Academic Achievement
Results – Does Affect predict Academic Achievement?

• In Female students neither Positive nor Negative Affect predicted Academic Achievement

• In Male students Positive Affect *positively* predicted Academic Achievement
Results – Summary and Implications/Discussion Points

• All students showed a *positive* correlation between Academic Achievement and Control of Life

○ What it is that may lead to a feeling of lack of control for our students and what, if anything, can we as educators do about this?
Results – Summary and Implications/Discussion Points

• In Female students Academic Achievement is *negatively* predicted by:
  • Control-of-Emotion
  • Confidence-in-Abilities.
• In Female students neither Positive nor Negative Affect predicted Academic Achievement

  o For females, it is not their emotions that predict their grades, but whether they are (over?) controlling them (see also Crust et al. 2009)
  o Are female students overconfident?
  o How could educators respond to this?
Results – Summary and Implications/Discussion Points

• In Male students Academic Achievement is positively predicted by:
  • Commitment
  • Positive Affect

  o When male students commit and engage, it is ‘paying off’ and is shown in their grades
  o For males, happy students are higher achieving students
Concurrent qualitative studies

• How do we define academic success? How do students define academic success?

• The role of assessments
Discussion points . . .

- What it is that may lead to a feeling of lack of control for our students and what, if anything, can educators do about this? Students do show high levels of taking responsibility, which is encouraging. But are they doing less than they think?

- Are female students overconfident?

- For males, happy students are higher achieving students. Are female students ‘over controlling’ their emotions?

- When male students commit and engage, it is ‘paying off’ and is shown in their grades – this wasn’t found for females. Are males working smarter?
References


• Crust, L., Earle, K., Perry, J., Earle, F., Clough, A. & Clough, P.J. (2014). Mental toughness in higher education: Relationship with achievement and progression in first-year university sports students. Personality and Individual Difference, 69, 87-91


