Summary of the study: Blackwell et al: Study one.

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| Aim |
| To see whether theories of intelligence correlate with academic achievement in maths |
| Hypotheses |
| There will be a relationship between 7th grade students’ theories of intelligence (Mindset) and their grades on a standardised maths test |
| Method |
| Study ONE  Longitudinal correlational field study.  Sample: 373 7th grade students (four successive classes) 198 girls/175 boys New York City school. 205 African American/101 South Asian/56 Hispanic/11 East Asian or European American  Materials   * Scores on a standardised maths test taken in 6th grade * Standardised maths test to measure achievement * Motivational questionnaire (6 point Likert scale) 1. Theories of intelligence 2. learning goals 3. Effort beliefs 4. Helpless response to failure   Procedure   * Informed consent was obtained plus right to withdraw given * All students completed motivational questionnaire at the start of 7th grade during lesson time by trained research assistants * Maths achievement in the Autumn & Spring terms of 7th & 8th grades * Participants only had one teacher during 7th grade and one during 8th |
| Results |
| * No correlation between theory of intelligence or other motivational scores and maths test scores at START of 7th grade * Theory of intelligence was a significant predictor or maths achievement in the Autumn & Spring terms of 7th & 8th grades |
| Conclusions |
| Those students with a growth mindset showed greater improvement in their maths test |

Summary of study two:

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| Aim |
| To test the impact of academic intervention |
| Hypotheses |
| Students who are taught a growth mindset will show more positive motivation in lessons and achieve more highly than students who are not taught about growth mindset. |
| Method |
| Study two  Correlational field study with experimental intervention (IV)  Independent measures design  IV: incremental theory (mindset) intervention group OR control group  DV: levels of motivation and achievement on maths assessment  Participants  99 Pps (49 girls/50 boys) from 7th grade class in the USA (91 continued to the intervention group). Varied socioeconomic status and ethnicity  Materials  Sixth grade maths grades used as baseline  Motivational questionnaire (same as study one)  Procedure   * Participants completed the questionnaire at the start of autumn term of 7th grade * Pps randomly assigned to intervention or control group * Pps told then would take part in a voluntary 8-week voluntary workshop to help with study skills (intervention group: key message of “learning changes the brain by forming new connections and that students are in charge of this process” / control group: lesson on memory and other areas of interest) * After the 8 weeks both groups given a MCQ on the content of the course * 3 weeks later given the motivational questionnaire again * Maths teacher asked to record any changes in motivational behaviour in students (researchers coding comments into positive or negative did NOT know which groups pps had been assigned to. ALSO Teacher did not know they had been assigned to different groups) * Pps maths grades recorded in Spring term 8th grade |
| Results |
| 1. No difference in recall of content on MCQ between groups 2. Pps in the experimental groups showed significantly more positive mindsets. No change for control group 3. 27% of students in intervention group reported by teacher to be more motivated compared to 9% of controls 4. Pps in intervention group gained significantly higher grades in autumn and spring maths assessment compared to controls |
| Conclusions |
| Students with a growth mindset show a more positive effect on motivation and more positive beliefs about effort  Teaching students that intelligence is flexible has a positive effect on motivation and achievement |