

Thursday, 24 November 2016

Teacher implicit and explicit biases: Do they predict achievement?

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EDUCATION AND
SOCIAL WORK

The ethnic achievement gap

- Underachievement of Māori
- The role of SES
- Conscious and unconscious bias
- Explicit and implicit expectations
- Differential opportunities to learn
- Student sensitivity
- Size of expectation effects



Source of teacher expectations

- Stereotyping
- Implicit prejudiced attitudes
- Exist on an explicit and implicit level
- Conscious versus unconscious
- Develop from exposure
- Ka Hikitia
- Biased versus unbiased teachers
- Bias leaks out



Measuring explicit and implicit bias

- Using an explicit measure
 - Processing of information
- Using an implicit measure
 - Pressure of time
 - A busy classroom
 - Implicit behaviours
- Implicit beliefs predict behaviour



Expectations, achievement and ethnicity

- Explicit expectations and ethnicity
 - Mixed results
- Controlling for achievement
- Implicit attitudes and achievement
 - Van den Bergh et al (2010)
 - General prejudiced attitudes
 - Predicted student achievement

Contributions of current study

- Relations of explicit expectations to achievement
- Relations between implicit bias and achievement
- Combined influence of explicit and implicit bias on student achievement



Participants

- 38 teachers
 - 27 female
 - 60% NZ European
 - 17% Pasifika
 - 6% Māori
- 16 years teaching experience
- 8 teachers in low decile, 22 in mid, 8 in high



Student participants

- 1060 students
 - 47% girls
 - Mean age = 9.3 years
 - 49% NZ European
 - 19% Māori
 - 19% Pasifika
 - 11% Asian

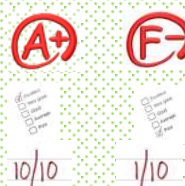


Measures

- Student e-asTTle reading and mathematics achievement
- Teacher explicit expectations in reading and mathematics (1 = very much below average to 7 = very much above average)
- Implicit Association Test – association of European, Māori and Asian surnames with images of success and failure

Implicit Association Task

Example Images



Example Names

Wairau (Māori)
Leung (Asian)
Johnson (European)

Results

- Differences in end-of year achievement (Māori, European, Asian) related to prior achievement
- Implicit bias:
 - European vs Māori
 - European vs Asian
 - Māori vs Asian
- No relations between explicit and implicit bias
- European teachers much stronger bias in favour of European students

Further results

- 20% of variance in mathematics achievement and 30% in reading attributable to teacher/school (implicit bias, SES)
- Explicit expectations strong relations with reading achievement
- All students benefitted
- Implicit bias associated with mathematics achievement
- Teacher favourable bias by ethnicity beneficial (Māori vs European) – 28 points in maths

Further results

- High class level expectations coupled with no implicit bias favouring one group = large end-of-year gains
- Overall, explicit expectations have large effects on reading; implicit bias large effects in mathematics



Discussion

- High explicit expectations in reading led to greater achievement gains
- Salience of achievement messages in reading
- Internalization and self-belief
- Implicit bias and mathematics
 - Non-verbal portrayal of expectations
- High expectations for all students
- Flexible grouping