Northumbria Research Link

Assessing Self-Assessment Accuracy and

Investigating its Association with Academic Performance

Tony Blackwood

Newcastle Business School

Northumbria University

Metaknowledge

◉ An appreciation of how much, or little, one knows

◉ Requires a greater level of expertise than primary knowledge

(Ramnarayan et al 1997)

◉ Appreciating how much one knows helps to understand whether more information is needed

(Renner & Renner 2001)

◉ Professional educators therefore have a responsibility to assist learners in knowing how much they do not know.

(Kennedy et al 2002)

◉ Metaknowledge tends not to be developed during formal education

(Russo & Schoemaker 1992)

Research Instrument

30 item multiple-choice questionnaire designed to assess both knowledge and metaknowledge

Example

Which of the following countries is biggest in terms of area?

a)	*Peru*	□
b)	*Mexico*	□
c)	*Denmark*	□
d)	*Italy*	√

Confidence level (25-100%)　　…60…….%

Operationalising Metaknowledge

Bias score   =   MC   -   KS

Where:

MC = Mean confidence across all judgements

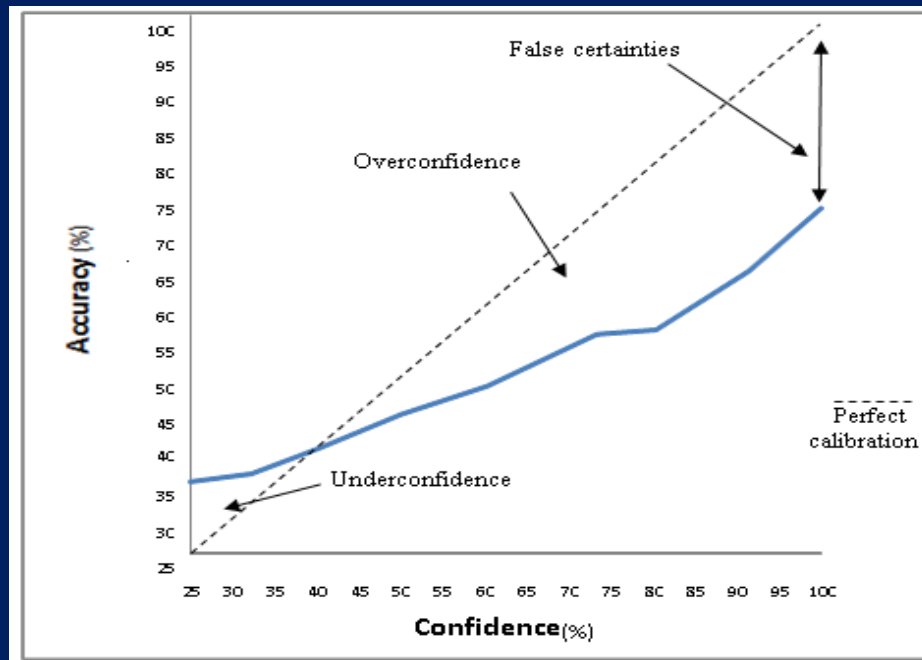*KS = Overall proportion correct*

BS>0   =   overconfidence

BS<0   =   underconfidence

Findings

Metaknowledge

- The majority of respondents (72%) were overconfident in their knowledge *(mean bias score = 8.9%)*

Calibration Curve

Findings

Individual differences

- ○ Gender   Males
  Females

- ○ Nationality   Chinese
  UK

Findings

Individual differences

- Gender   Males   9.9%
  Females   7.6%

- Nationality   Chinese   16.2%
  UK   5.1%

Association with Academic Performance

- Overconfidence and academic performance negatively correlated

References

◉ Kennedy, E.J., Lawton, L. and Plumlee, E.L. (2002) 'Blissful ignorance: the problem of unrecognized incompetence and academic performance' *Journal of Marketing Education,* 24 (3) pp. 243-252.

◉ Ramnarayan, S., Strohschneider, S., and Schaub, H. (1997),Trappings of expertise and the pursuit of failure', *Simulation and Gaming*, 28(1), pp. 28–43.

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