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# **Assessing Self-Assessment Accuracy and Investigating its Association with Academic Performance**

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# 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    | <input type="checkbox"/>            |
| b) | Mexico  | <input type="checkbox"/>            |
| c) | Denmark | <input type="checkbox"/>            |
| d) | Italy   | <input checked="" type="checkbox"/> |

Confidence level (25-100%)      ...60.....%

# Operationalising Metaknowledge

$$\text{Bias score} = \text{MC} - \text{KS}$$

Where:

*MC = Mean confidence across all judgements*

*KS = Overall proportion correct*

BS > 0 = overconfidence

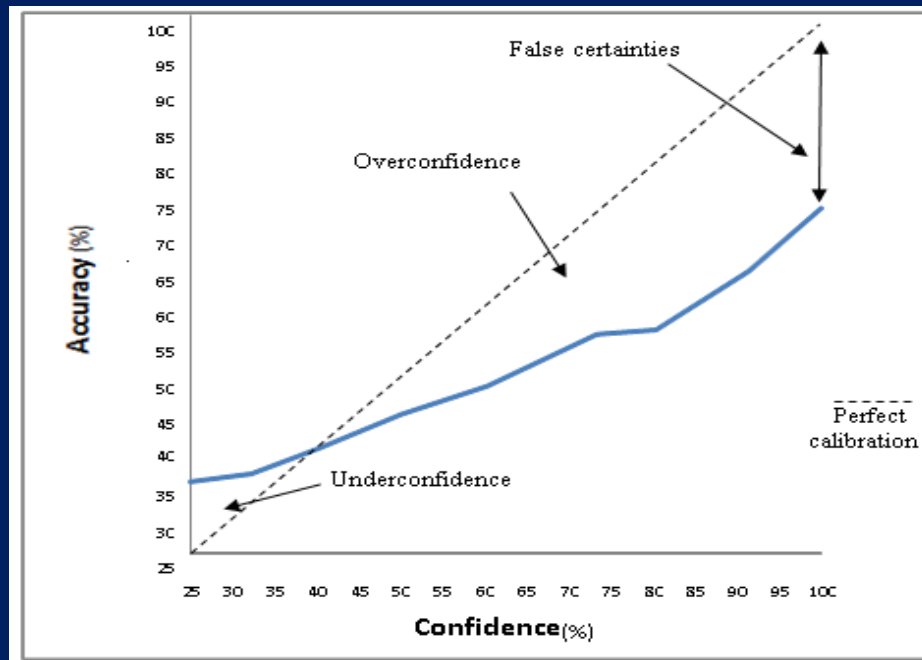
BS < 0 = underconfidence

# 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

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