An exploration of self-confidence and insight into marking accuracy among GCSE maths and physics markers

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Background

Research into self-assessment has revealed that people often fail to recognise their own level of competence in performing cognitively demanding tasks (Dunning, Johnson, Ehrlinger & Kruger, 2003). This may be because, for a given task, the skills needed to perform it well are essentially the same skills needed to surmise how well one is performing.

Self-assessment has been explored by psychologists in numerous contexts, for example, in health, education and work places (Dunning, Heath & Suls, 2004). So far, however, no studies have considered how GCSE markers' self-confidence and insight into marking accuracy change during the marking process. Previous research would suggest that practice and feedback enhance self-confidence and also help to develop insight into actual performance (Dunning *et al*. 2003).

Aims

This empirical study had three aims: (i) to investigate how self-confidence changes during the course of the GCSE marking process; and (ii) to explore how much real insight markers have into their marking accuracy; (iii) to identify any differences in self-confidence and in insight between experienced and inexperienced markers.

Research methods

Maths and physics questions from past GCSE examinations were used in the study. Candidates' responses were marked experimentally by groups of experienced and inexperienced (graduate) markers, led by Principal Examiners with considerable expertise.

Near-identical questionnaires were administered on three occasions during the marking process: (i) immediately after marking a 'practice' sample of candidates' responses; (ii) after attending a standardisation meeting, in which feedback on the 'practice' sample was obtained; and (iii) after marking a 'main' sample of responses. The questionnaires were used to ask markers direct questions about their perceived accuracy. All data were analysed statistically.

Research findings

Marking accuracy varied among individual markers, particularly in physics. Self-confidence was also found to vary, both among individuals and during the course of the marking process: for maths, the two marker groups became gradually more similar in their self-confidence ratings, whereas for physics, they did not.

For maths, neither experienced nor inexperienced markers had real insight into their own marking accuracies on either of the two response samples marked. This result contrasted with that for physics, where markers' self-confidence ratings *did* correlate with their marking accuracies; however these results differed for experienced and inexperienced physics markers.

Discussion

It appears likely that markers' personal perspectives are generally poor indicators of their accuracy. This finding is consistent with the literature on flawed self-assessment in other contexts. However, feedback does not always improve insight, and for some inexperienced markers, it might even lead to a more distorted view.

Further research on this topic is needed. For example, the usefulness of self-report data may depend on markers' personality characteristics. Nevertheless, our study's findings could be important for the development of marker training.

References

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