



CAMBRIDGE ASSESSMENT

An investigation of rater cognition in the assessment of projects

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Abstract

Objectives/purposes

This research investigated rater cognition in the context of the assessment of project work for high stakes purposes. In the UK, the majority of national assessments involve human raters. The process by which raters determine the scores to award are central to the assessment process and affect the extent to which valid inferences can be made from assessment outcomes. Thus, understanding rater cognition has become a growing area of research in the UK.

Perspectives/theoretical framework

Two key assumptions underpin this research. Firstly, that the information attended to when conducting a task is represented in short-term memory and can be reported if a participant is asked to think aloud. Whilst the verbal protocols produced may have omissions, it is thought that cognitive processes can be inferred (Green, 1998). Secondly, that a key differentiating factor in judgement relates to whether they are impressionistic and holistic in nature, or atomistic and closely tied to criteria ('configurational' or 'analytic', Sadler, 1989).

Methods

Coursework projects form part of many national school leaving assessments in the UK. This assessment type is intended to enhance construct validity by facilitating the measurement of important skills that are difficult to assess via examinations. Projects are scored by teachers and are then subject to standardization procedures both internal and external to the school.

Thirteen teachers across three subjects were asked to 'think aloud' whilst scoring examples of coursework projects. Teachers also participated in an internal standardization exercise. Nine professional raters across the same three subjects 'thought aloud' whilst standardizing a set of coursework scores. The rater behaviours and features attended to were coded in detail. A questionnaire was completed by 378 teachers across a range of subjects to explore the generalisability of the findings.

Results

The data provided insights into aspects of rater cognition such as reading strategies, emotional and social influences, evaluations of features of student work (which aligned with scoring criteria), and how overall judgements on scores are reached. The findings were related to cognitive theories, such as analytic versus configurational models of judgement, the relationship between intuition and use of criteria, and the role of comparisons. A model of the judgement processes involved is proposed. The cognition of teacher raters was not



substantially different to that of professional raters. Teachers reported exam board guidance as the most important influence on scoring.

Significance

The findings support the argument for the involvement of teachers in assessment (subject to quality assurance procedures and appropriate training/guidance). The features of work assessed reflected the intended constructs and thus provide support for validity (given that a key inference is that assessment outcomes reflect achievement in the domain). These findings are relevant to ongoing debate about the appropriate role of assessment by teachers.

References

- Green, A. (1998). *Verbal protocol analysis in language testing research: A handbook*. Cambridge: Cambridge University Press.
- Sadler, D.R. (1989). 'Formative assessment and the design of instructional systems'. *Instructional Science*, 18, 119-144.
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