Extended essay marking on screen: Does marking mode influence marking outcomes and processes?

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Abstract

Background to the topic
In the UK and elsewhere, large-scale educational assessment agencies are shifting towards marking examination scripts on screen rather than on paper. This mode shift affords opportunities to monitor marking quality and distribute data efficiently; however, there are concerns that this mode shift might influence marking outcomes. In an earlier study which investigated marking mode effects with short essays of approximately 600 words, Johnson and Nádas (2009) found that marking outcomes were unaffected by marking mode but they were concerned that such findings might not translate to longer essays.

Theoretical framework
Building upon research into reading and comprehension processes a theoretical model of the relationship between marking mode, marking processes and marking outcomes is proposed. In summary, the model proposes that the shift from marking essays on paper to on screen may impact upon examiners' manual and cognitive marking processes, consequently influencing their essay comprehension and final marking outcomes.

Focus of the enquiry
The study investigated the potential relationships between mode and extended essay marking in three broad areas of enquiry. These areas explored such relationships through gathering data on examiners' marking outcomes, their manual marking processes, and their cognitive marking processes.

Research methods
The study replicated the methods of Johnson and Nádas (2009), using two matched samples of 90 A-level History extended essays (approximately 900 words) and a sample of 12 A-level History examiners. Each examiner marked one 90-essay sample on screen and one 90-essay sample on paper. To control for essay sample and marking order, a crossover research design was applied. A mixed methods approach was used to investigate mode effects; these included statistical analyses of examiners' marking accuracy outcomes, observations of examiners' marking processes, examiner interviews, and analyses of examiners' cognitive workload measures.

Research findings
Overall, the findings suggested that examiners' manual and cognitive marking processes were significantly influenced by marking mode. When marking on screen, examiners' physical marking processes were inhibited and their levels of cognitive workload were increased. Nevertheless, the findings suggested that marking mode had no substantial influence on

extended essay marking outcomes: examiners marked with equivalent accuracy across marking modes.

References
Johnson, M. & Nádas, R. (2009) An investigation into marker reliability and some qualitative aspects of on screen marking. *Research Matters: A Cambridge Assessment Publication,* 8, 2-7.

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