

**Technologically mediated communication: methods for exploring examiners' real-time feedback interactions.**

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**Abstract**

Technological changes in the UK school examinations system include the use of technologies to convert students' paper examination scripts to digital images before distributing them to examiners for marking. This technology gives Team Leaders (senior examiners) data on the marking performance of examiners under their supervision as well as providing electronic messaging channels that allow Team Leaders to give feedback to examiners on their marking performance.

For the awarding body<sup>1</sup> in this study, once an examiner has been standardised and cleared by a senior examiner to mark 'live' (i.e. operational) examination scripts their marking quality is monitored through a number of mechanisms. One of these mechanisms is through Team Leaders considering the marks given by examiners to special monitoring scripts which (unknown to the examiner) already have preordained definitive marks. These monitoring scripts are known in the system as 'seed' scripts.

Figure 1 outlines the standard process from when an examiner downloads their seed script (within the body of their live marking allocation) to the point where their Team Leader provides feedback to them on their marking performance. This simple outline potentially masks a number of complex interactions which underpin the way it functions, largely because its success relies on the distributed participants sharing

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<sup>1</sup> In England, Wales and Northern Ireland educational qualifications are offered by awarding bodies that are recognised as being eligible to award such qualifications by government appointed regulators.

reciprocal language, terminology and understandings via the feedback that passes around the system. Investigations into social interaction and meaning making are a staple feature of sociocultural theories (e.g. Vygotsky 1963) which look to understand how social interaction influences thought and action in individuals, with the development of shared understanding across individuals helping to advance expertise levels (e.g. Wenger, 1998/2000).

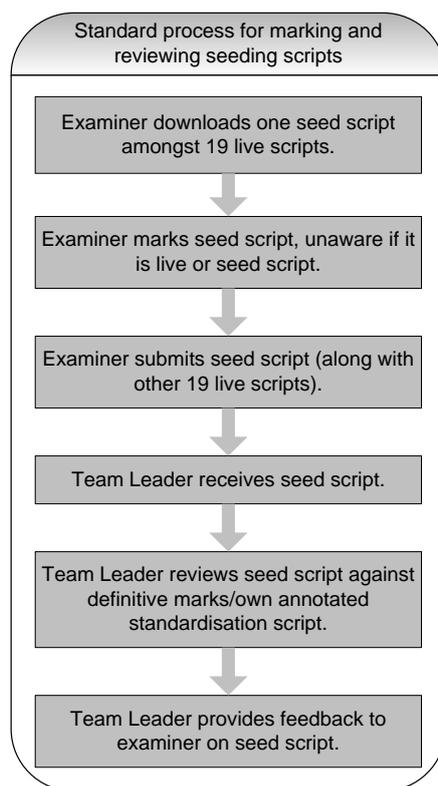


Figure1: *The monitoring process using seed scripts from marking through to feedback*

The intention of the research project is to better understand the ways that Team Leaders and examiners interact, the nature and effectiveness of the feedback that passes back and forth between them, and the issues affecting its formation, including the effects of the communication channels available (e.g. electronic mail, telephone, etc). By highlighting some of the social interactions around Team Leader feedback to examiners the study could also inform discussions about the nature of effective feedback and the features of the communication channels through which it is carried.

The sociocultural conceptual framework underpinning the study led to the use of a multiple method approach to maximise analytical confidence through data

triangulation and the identification of common codes via different approaches. The study adopted a four-phase data collection process (Figure 2).

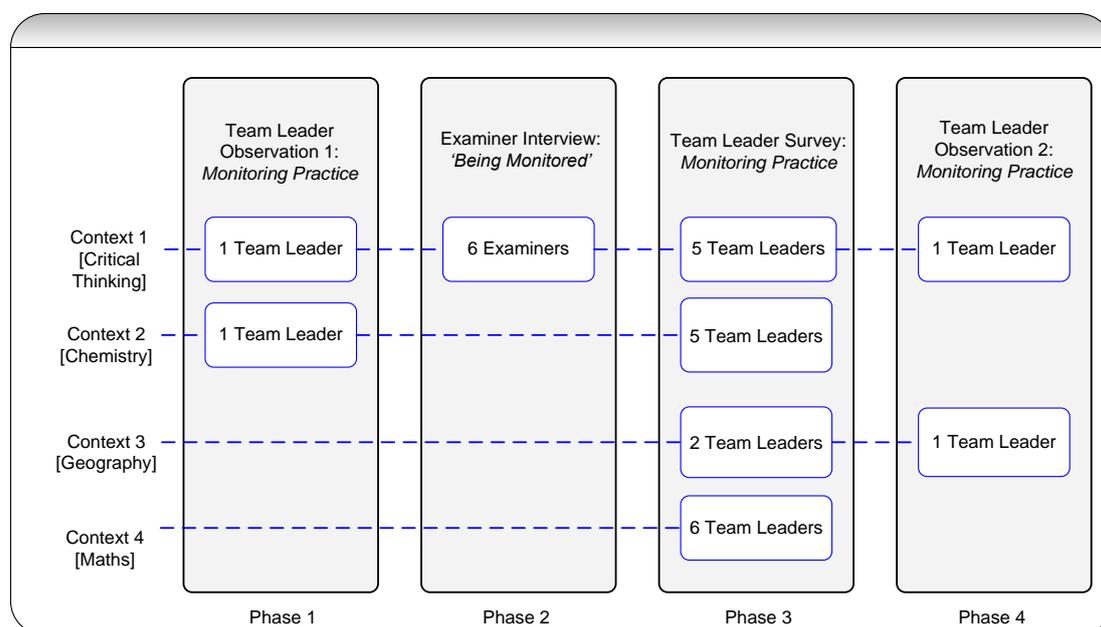


Figure 2: *Project Design Phases*

The first and fourth data collection phases involved researchers using a software package to capture observational video data of four Team Leaders engaged in the monitoring of examiners across three subject areas. The Team Leaders and the researchers then jointly viewed this video data as part of a stimulated recall interview. Analysis of the Team Leader observation video data was then carried out at two levels. The first level involved two researchers jointly using a coding framework to analyse the navigational behaviours of the Team Leaders as they monitored their examiners. The second data analysis level considered the data from the stimulated recall session. Researchers were able to link the Team Leaders' narratives to the patterns of their monitoring behaviours identified by the first analysis. This linking allowed secondary coding to be carried out to look at the reasons given by Team Leaders for particular actions.

The second data collection phase used telephone interviews with six examiners in one subject area to gain an understanding of the effects of Team Leader monitoring activities on the examiners. Analysis of feedback considered the nature of the feedback, the qualitative affect of the feedback, and the consequent actions that were linked to the feedback. Each of these pieces of data were tagged to evidence

from the interview transcript. The final element of analysis involved the generation of overarching themes that were identified in the data.

The third data collection phase sought to gain a broader picture of monitoring practices through the use of an online survey of 18 Team Leaders across all four subject areas. Two researchers analysed the survey data using a mixed methods approach, reflecting the mix of quantitative and qualitative survey data. Both researchers coded and analysed the responses separately, one using MAXQDA qualitative analysis software and the other using SPSS 15.0 software. The themes identified through these analyses were then compared. This approach allowed the same data, containing interpretative characteristics, to be looked at from different perspectives.

The outcomes of the project analyses allow a number of insights into the motivations for and characteristics of feedback given by Team Leaders to examiners, whilst also considering the effectiveness of such communication. The study integrates a number of approaches, reflecting the complexity of the interactions that take place and, as a result, provides a methodological framework which could inform further studies.

Vygotsky, L.S. 1963. Genesis of the Higher Mental Functions. In *Learning to Think*, ed. P. Light, S. Sheldon, and M. Woodhead. Oxford: Oxford University Press.

Wenger, E. 2000. Communities of Practice and Social Learning Systems. *Organization*, 7, no. 2: 225-246.

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