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All in good time: Influences on team leaders' communication choices when giving feedback to examiners

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Introduction

In the Oxford, Cambridge and RSA (OCR) awarding body, senior examiners with responsibility for monitoring the marking performance of other examiners in a marking team are called team leaders. Prior to examiners being cleared to mark examination scripts, they undergo a standardisation process. This involves the most senior examiners aligning all other examiners to their decisions around how to apply a mark scheme. At the end of this standardisation process the team leaders verify that each examiner can apply the mark scheme appropriately.

Throughout standardisation and subsequent live marking some team leaders and examiners work remotely from each other in a digital marking environment. This environment supports a number of important marking quality assurance functions: Team leaders can see examiners' real time scripts and mark submissions; they can also easily compare examiners' marks with preordained definitive marks on special monitoring scripts to check marking accuracy. The digital marking system also allows team leaders to give examiners feedback on their marking.

My previous research has looked at some of the common and diverging characteristics of team leader feedback (Johnson & Black, 2012a; Johnson & Black, 2012b). In this article I take a closer look at some of the data from those studies to explore why team leaders choose different communication modes when giving feedback to examiners. I argue that these choices relate to the capacities of different modes to balance the needs of communication flow and to support the alignment of team leader intended meaning and examiner interpretation of feedback messages. As part of that discussion, I consider how these choices relate to communication theories, media richness, and the synchronous and asynchronous qualities of communication modes.

Why do team leaders give feedback to examiners?

The digital marking system that is used by OCR examiners supports the awarding body's marking quality assurance arrangements in a number of important ways. The ability to simultaneously distribute digitally scanned versions of common examination scripts across different examiners allows examiners' marks to be compared with each other in ways that were not practical prior to the introduction of the digital marking system. The use of common scripts supports the examiner standardisation training process by allowing common rationales to be shared with examiners on carefully chosen exemplar scripts. The system also allows team leaders (senior examiners who have the responsibility to monitor the marking performance of other examiners in their marking team) to oversee the quality of examiners' live marking in real time.

Another benefit of the digital marking system is that team leaders can engage more frequently with examiners in their marking team by giving them feedback on their recently completed marking. These benefits are reflected in an Office of Qualifications and Examinations Regulation (Ofqual) report on marking which states:

As well as its logistical benefits, on-screen marking should improve marking reliability by enabling more frequent and flexible monitoring of examiners by exam boards. Senior examiners review their team's marking almost in real time, ensuring that inconsistent or inaccurate marking is detected early

(Ofqual, 2013, p.12)

Previous research has started to elicit some information about team leader feedback practices (Johnson, 2015; Johnson, 2014; Johnson &

Black, 2012a; Johnson & Black, 2012b). These findings suggest that, as well as supporting crucial marking quality assurance functions, feedback also facilitates examiner learning and their membership of a professional community. This is because feedback gives team leaders and examiners direct and on-going access to each other's perspectives around shared areas of focus.

Regardless of the purpose of feedback, what is of interest for my analysis in this article is that all of these functions rely on an underlying mechanism that allows participants' intended and received meanings to be communicated effectively.

How does feedback communication work?

Distributed Cognition Theory (Hutchins, 1995) suggests that organisational intelligence grows through the push and pull of information across a professional community. These pushes and pulls occur when experts in a community decide that others need access to specific information, or where less expert members request something that they need to know in order for them to carry out an activity. This perspective on learning and development is supported by sociocultural learning theories which suggests that individual cognitive development is contingent on social interaction involving individuals who possess different levels of expertise (Roth & Lee, 2007; Vygotsky, 2014). Feedback communication is a form of social interaction that can allow recipients an insight into the perspective of experts, and therefore help to induct less experienced participants into a professional community (Wenger, 2000; Wenger, 1998).

For communication to be successful there must be alignment between the intended meaning and the received interpretation of any communicated message. Communication theory suggests that this alignment involves synchrony, which is described as 'the extent to which individuals have a shared focus' (Dennis & Valacich, 1999, p.5). In other words, participants in discourse need to have a shared common object if they are to be able to attend to each other's perspective. Shared focus may be fixed on either a tangible object (e.g., a mark scheme) or a semantic object (e.g., a mathematical concept). The important thing is that this shared focus gives participants common ground on which they can start to build a sense of meaning in relation to each other.

Synchrony may be influenced by communication mode. Research into digital communication categorises communication modes in terms of their media richness. This concept was developed by Trevino, Lengel, and Daft (1987), who describe rich media as those with a high bandwidth which are able to carry a relatively large amount of information. Rich media, such as face-to-face communication (Pfaffman, 2007; Hollan & Stornetta, 1992) facilitate instant feedback, allow both verbal and nonverbal cues, involve natural language, convey emotion, and are considered to be the best mechanisms for conveying ambiguous ideas or concepts (Cameron & Webster, 2005).

The richness of a communication mode also subsumes the concept of synchronicity (Whittaker, 2003). Asynchronous communication involves a disruption in communication, with perhaps the most common form of asynchronous disruption being temporal (e.g., where there is a gap between communication instigation and reply). Email is an asynchronous communication mode. On the other hand, synchronous communication occurs where there is a direct link between instigation and reply (e.g., a telephone conversation).

Research suggests that asynchrony and synchrony can impact the way that feedback communication influences learning. For example, a number of studies define effective feedback as having immediacy (Barton & Wolery, 2007; Ahmed et al., 2012; Chur-Hansen & McLean, 2006; Burke, Marks_Maran, Ooms, Webb, & Cooper, 2009; Hatzipanagos & Warburton, 2009; Mathieson, 2012; Li & De Luca, 2014). Archer (2010) and Cook, O'Shea, Young, and Stedmon (1999) report that synchronous feedback aids task completion, with information being incorporated within on-going learning processes (Panahi, Birjandi, & Azabdaftari, 2013). Similarly, learners perceive synchronous feedback to be more effective than asynchronous feedback (Owens, Hardcastle, & Richardson, 2009; Dennen, Aubteen Darabi, & Smith, 2007). On the other hand, Archer (2010) notes that asynchronous feedback best supports the transfer of knowledge, allowing time for reflection, and reinforces already learned skills (Barton & Wolery [2007].

Methods

The study of team leader feedback practice presents a number of challenges. These challenges relate to the scale and distribution of communication interactions in the digital marking system. In order to gain a picture of feedback practices and perspectives a four-phase matrix data collection plan was developed, spreading data collection across four subject areas and involving 22 team leaders and 6 examiners (Figure 1).

The first and fourth data collection phases used direct observation and follow up interviews to gather data about team leaders' feedback practices. These observation sessions involved two elements. The first element involved the team leader giving feedback to examiners in their team in the digital marking environment. During this time researchers remotely observed the team leader's on- and off-screen practice using Morae[®] usability software (TechSmith, 2011) (Figure 2). The second element of the observation session involved the team leader and the researchers jointly viewing the audio-visual recording of the feedback session and using it as a stimulated recall session. Stimulated recall is one of a set of introspective methods that elicit data about the thought processes that an individual uses when carrying out a task (Gass & Mackey, 2000).

The second data collection phase gathered information from examiners about their perspectives on team leader feedback through telephone interviews. Examiners were asked to talk through the feedback messages that they had received from their team leader. The third data collection phase surveyed 18 team leaders across the 4 subject areas. The survey focused on validating the themes identified during the observation sessions.

The next section outlines the themes that appear across the data analyses that relate to elements of media richness and synchrony.

Findings

The survey data show that all team leaders used a mixture of email and telephone modes to give feedback to examiners. The interview, survey and observation data provide a number of insights into the reasons why team leaders chose these differing communication modes, with communication management and synchrony appearing to be salient influences.



Figure 1: Project design phases



Figure 2: Feedback observation - the researchers' view

Analyses of the team leader survey responses (Table 1) suggest that email choice links with issues of communication speed and convenience. On the other hand, telephone communication links with issues of personalisation, information quality, and sense checking requirements.

Preferences for the telephone communication mode also appear to relate to the nature of the feedback being given. Team leaders prefer to use the telephone at times where the feedback being given is very detailed, or where it deals with comprehensive aspects of mark scheme application. There is also an indication that examiner effectiveness can be influenced by telephone communication:

Interestingly, (my most accurate examiner) has phoned me more (than other examiners) during the standardisation process. (Team leader 1) Table 1: Reasons for choosing communication mode

Mode		
Email	Telephone	
18	3	
12	4	
4	13	
2	9	
3	11	
	Mode Email 18 12 4 2 3	Mode Email Telephone 18 3 12 4 4 13 2 9 3 11

The telephone mode also affords two-way discussion. Some examiners report that this helps them to better understand their team leader's intentions:

I think it speeds me up having [the feedback] on the phone because as we go through I have a chance to air further doubts ... which would otherwise require an email and then another one back. (Examiner 5)

The digital marking system allows team leaders and examiners to remotely co-view scripts of interest on the computer whilst they discuss their perceptions of the quality of these scripts over the telephone. This type of activity is considered to be a positive strength of using the telephone communication mode. This is because it has a higher bandwidth than email and allows examiners to attend simultaneously to multiple sources of audio and visual information:

The fact that you can be talking about a script and a question and have it on screen and be talking on the phone at the same time. I know that is pathetic but I am not used to using technology in this way and I think my marking has improved since we have gone to the electronic version. (Examiner 2) Team leaders suggest that they prefer to use the telephone when they need to convey sensitive information. This is because there are concerns that a negatively received email may undermine examiner confidence, particularly when there are important and pressing issues with an examiner's marking to be dealt with. This is supported by data from the survey where three team leaders suggest that the telephone is useful for mediating a potentially negative examiner reaction to a serious message. In these instances team leaders are likely to adopt a more personal approach. The telephone is considered to be better for conveying an informal and friendly tone whilst communicating sensitive information to examiners.

Team leaders and examiners also recognise the benefits of using email to communicate feedback. Team leaders who prefer to use email highlight the way that it allows parcels of information to be communicated quickly to examiners. They also appreciate the way that it allows them to manage communication flow by being able to send and pick up messages when it is convenient for them to do so. They also recognise that this speed of information transfer can reduce cognitive load:

[Email] is quick and easy once it is working efficiently. Face-to-face standardisation can be very demoralising for examiners, especially if there is too much discussion and confusion can arise from this. (Team leader 10)

[Email] gives faster responses ... having to post 10 scripts and wait for the return is very time-consuming. Even continuing to mark while waiting for the return is difficult as changes will inevitably need to be made in the light of the team leader's comments. Being able to submit 3 scripts and get a response in 24 hours is more appropriate as you can remember the reasoning behind giving/not giving a particular mark. (Team leader 12)

Email feedback also has the benefit of leaving a written record. Compared with the ephemerality of spoken communication, this feedback has a tangibility that can be used as a resource for examiner reflection at a later date:

Yeah, that was good because then I went back to it quite carefully and then I could make notes on my mark scheme as well then, that was good. (Examiner 1)

Team leaders suggest that interpersonal issues can influence their feedback delivery, including communication mode choice. Team leaders and examiners acknowledge that prior co-working experience can influence how they interpret email messages, and support their development of a shared repertoire:

Again, if I did not actually know my team leader and know how he operates and how he traces things it might be a little more difficult to interpret the emails. (Examiner 6)

In contrast, examiners who work with new team leaders report that a lack of any prior connection can affect the way that their work is interpreted:

I think he took it that I was rushing; actually I think I was overthinking it. (Examiner 1)

This issue also emerges in the team leader survey data. Out of the 18 team leaders, 14 report that their prior knowledge of an examiner influences the amount and/or the style of the feedback given.

Discussion

I argue in this article that the objective of team leaders when giving feedback is to construct messages that allow examiners insights into their thinking. This interaction is key to the development of an examiner's understanding of how to interpret and apply mark schemes in accordance with their team leader's views. For feedback to be useful, messages need to encourage synchrony. Drawing on the concept from Dennis and Valacich (1999), this synchrony involves the participants developing a shared focus so that both feedback message intention and reception are aligned.

My analyses suggest that team leaders consider a number of factors when choosing a feedback communication mode. These factors include the qualities of the feedback information being conveyed, consideration of the anticipated reaction of the examiner, and prior experience of co-working. When placed in the context of communication theory, these findings are not surprising. Media richness (Trevino et al., 1987) influences how communication works, and this richness includes synchronous and asynchronous dimensions (Whittaker, 2003). The data in this study suggests that this dichotomy only partially explains the complexity of the communication that takes place between team leaders and examiners.

I argue that synchrony is a nuanced concept which comprises two interacting types; logistic and semantic synchrony. Logistic synchrony describes the way that someone can arrange pieces of information so that they are coordinated, either physically (i.e., situated next to each other on a page) or temporally (i.e., situated next to each other in the course of a spoken conversation). Logistic synchrony can be influenced by the technology through which information is communicated, since different communication modes have different affordances (Sellen & Harper, 2002). For example, face-to-face communication affords participants the ability to respond to issues in conversation in an iterative, on-going fashion, whilst email conveys words that a recipient can reflect on at their convenience.

Semantic synchrony is a more abstract notion and describes the way that the meaning of a concept is coordinated between people (i.e., a commonly held shared meaning between individuals). The logistic arrangement of information can encourage semantic synchrony. This means that the two types of synchrony have a relationship, with the organisation of information influencing the development of meaning.

Drawing on theory that suggests that communication mode influences synchrony in general, I argue that each of these particular types of synchrony is afforded by different modes of communication. When team leaders choose a mode of communication, either synchronous or asynchronous, they are harnessing the logistic affordances of a communication mode to support the attainment of semantic synchrony. Figure 3 describes some of the ways through which the choice of communication mode influences logistic synchrony, and consequently supports semantic synchrony.

Telephone communication affords a different form of logistic synchrony from email in the way that it allows participants to manage the flow of communication in response to particular needs. For example, survey responses show that team leaders use the immediacy of the telephone communication mode to deal with any important and pressing issues with an examiner's marking. In terms of Distributed Cognition Theory, this synchronous communication mode allows information to be

	Synchrony type		
	Logistic	\rightarrow	Semantic
Communication mode			
Synchronous (e.g., telephone)	 Push and pull based on demand 	\rightarrow	 Dual channel Amount of information Cross-reference and checking Speed and quantity
Asynchronous (e.g., email)	Push and pull based on convenience	\rightarrow	 Words conveyed without loss Workflow control Review potential Reduced 'MUM effects'¹

Figure 3: Communication mode affordances and synchrony

1. The 'MUM effect' describes how, 'in general, individuals display greater reluctance to share bad news as compared to good news' (Dibble & Levine, 2010, p.3)

pushed and pulled between team leaders and examiners when they consider it to be necessary. As a result, the logistics related to the telephone mode allow information to be conveyed more quickly and in more detail. Studies report that verbal communication tends to include more words than text-based communication (King, McGugan, & Bunyan, 2008), due to the message composition time demands of typing. This affordance appears to be particularly valuable if there are serious marking issues to be dealt with. This finding tallies with other research which suggests that immediacy is a factor in feedback effectiveness (Barton & Wolery, 2007; Ahmed et al., 2012; Chur-Hansen & McLean, 2006; Burke et al., 2009; Hatzipanagos & Warburton, 2009; Mathieson, 2012; Li & De Luca, 2014).

This logistic synchrony, effectively co-locating the team leader and the examiner perspectives in the same time period, supports the strengthening of the semantic linkages between the participants. The timeliness afforded by the communication mode allows the participants to engage in discussion, where they can cross-check and clarify each other's intended and received meanings (Blair & McGinty, 2013). Team leaders and examiners also report that this dialogue is enhanced through the richness of the communication mode. Telephone use whilst viewing images of common scripts enables audio and visual information to be brought into connection with each other. This logistic positioning of information supports the building of meaning through the way that the messages from one information channel reinforce the message from another channel.

Examiners consider that timely delivery of information is a key characteristic of feedback that they feel has a positive effect on their marking. This message tallies with findings reported in other feedback studies (Owens et al., 2009; Dennen et al., 2007). One reason for this is that, where a feedback message is received by an examiner in the moment of marking, it is possible that they can factor the message into their practice without a great deal of extraneous mental load.

Asynchronous communication allows team leaders and examiners to manage their information flow differently from synchronous modes. The remote nature of examiner working means that it is sometimes difficult to coordinate work schedules so that conversations can take place. The use of an asynchronous communication mode such as email allows team leaders and examiners to send and pick up messages when it fits with their working arrangements. This element of control over information means that it is possible that the information recipient can also control the way that they fit the information into their task work. Through controlling information flow it is possible to ensure that distraction from extraneous information is minimised and does not interfere with the current focus of marking.

The use of email to asynchronously deliver feedback enables information to be delivered in a way that is not prone to listener bias since the writer controls the information included in the message. It also provides a written record of the interaction. This feature is a recognised strength of asynchronous communication, as it allows participants time for reflection when creating and interpreting information (Archer, 2010).

Finally, asynchronous feedback can overcome some interpersonal issues that can interfere with the accuracy of feedback information. Chur-Hansen and McLean (2006) observe that providing negative feedback is a demanding skill that requires participants to consider interpersonal issues when drafting feedback messages. This message is reinforced by Sussman and Sproull (1999) who draw attention to the finding in management research that information givers tend to distort feedback messages, particularly when giving bad news. Sussman and Sproull argue that this distortion is due to psychological anxiety surrounding the anticipated reactions of message recipients. This idea links the widely reported 'MUM effect' (Dibble & Levine, 2010).

Conclusions

The development of shared understanding across individuals is a key aspect of the development of expertise, helping to bring less experienced participants into the centre of a community of practice (e.g., Wenger, 2000; 1998). From a communication theory perspective, this shared understanding relies on the establishment of synchrony within interaction.

My interpretation of the study data suggests that when giving feedback, team leaders capitalise on the different technological affordances available to them as they attempt to build synchrony with examiners. In addition, the perceived nature of the information being conveyed and the interpersonal relations that a team leader has established with an examiner influence these choices.

An implication of the study findings is that communication systems need to allow some flexibility with regards to communication mode choice. The study data reinforce the point that understanding communication better means recognising that the 'text' of a communication is only part of the story, and that the mode of communication is also a contributory element to the meaning making process.

Synchronous and asynchronous communication modes afford logistic synchrony in different ways. Synchronous communication allows a greater quantity of information to pass between participants and is most responsive to push and pull demands. As a consequence, it is possible to cover more issues in less time. This suggests that a synchronous mode may be best suited to the initial marking stage when examiners have the most to learn. At the same time, there are potential weaknesses around some synchronous information modes. These weaknesses centre on the social anxiety of dealing with negative messages, and the ephemerality of verbal communication that leaves no record of interaction.

Asynchronous communication modes possess a logistic flexibility because they allow information flows to fit around busy work schedules. This is particularly useful in situations where it is not easy to coordinate work schedules across people. Feedback that is conveyed asynchronously may be particularly suited to the purpose of reassuring examiners about their practice, conveying definitive interpretations of terminology, or passing on administrative arrangements. This is because the communication mode is most suitable for transmitting information and does not afford participants a great opportunity to immediately discuss or question the meanings implicit in the message, so the reception of message cannot be verified. Asynchronous communication supports semantic linkage through allowing participants time to reflect on the information.

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