Consistency, connectedness and creative solutions: An investigation into online moderation

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This paper examines the possible connections between teachers' participation in online social moderation meetings and their assessment practices. Online moderation meetings are a new and unexplored space for teachers to gather to discuss, negotiate and justify their understandings of the standard of student work. Sociocultural theories of learning are drawn on to analyse the data collected from the observation of the online moderation meetings conducted during 2007 and 2008, and the interviews with participants. The results provide insights into how teachers from diverse locations may be developing a shared meaning and common practices within a standards-based assessment system.

Keywords: assessment; social moderation; standards; sociocultural

INTRODUCTION

This paper identifies how teachers' assessment practices may be developed through their participation in online social moderation meetings. In these meetings teachers negotiate and share their understanding of assessment standards and judgement decisions with other teachers located in geographically diverse locations. This paper is based on doctoral research associated with a four year Australian Research Council (ARC) Linkage project (2006 – 2009) that is investigating standards-based assessment in the middle years of schooling. The doctoral research has specifically focused on the learning that occurs as teachers engage in negotiated practice through the online moderation meetings.

Internationally, standards-based assessment is being incorporated into all levels of education, yet questions are raised about the reliability of such assessment when it employs subjective judgements of quality. Further, at a systemic level, there are calls for accountability of teachers' work and comparability of assessment judgements. Online moderation provides one mechanism that may support systemic demands while developing teacher practice. Significantly, online modes of moderation may support teachers in remote locations.

The study draws from data collected in relation to the implementation of the Queensland Curriculum, Assessment and Reporting (QCAR) framework (Queensland Studies Authority, 2008) which promotes the alignment of curriculum, assessment and reporting within the middle years of schooling. One component of this framework is the provision of comparable assessment tasks (QCAT) focussed on performance-based assessment that students in Years 4, 6 and 9 complete in the key learning areas of English, Mathematics and Science. Teachers across the state met in moderation meetings to discuss their gradings of these tasks based on an A – E scale. Meetings occurred face-to-face at school, cluster and regional levels, and online.

A broad corpus of qualitative data has been collected through observations of twelve online moderation meetings and interviews of the teachers involved in these meetings. The analysis is based on sociocultural theories of learning and focuses on the process of negotiation, and the interactions between the participants operating within a specific policy framework. The results of this analysis provide insights into how teachers from diverse locations may be developing a shared meaning of assessment standards while maintaining differentiated practice within the sociocultural context of their school environment.

These findings will generate information on how teachers may be supported in their use of assessment to enhance student learning, in particular, through their involvement in online moderation meetings. The findings provide empirical evidence to support future decisions regarding the incorporation of online modes of social moderation while addressing concerns for accountability, comparability and equity across diverse geographical locations.

The paper commences with a brief overview of sociocultural theories of learning. These understandings are applied in the next section to the research design and methodology. The findings of the research are discussed within this framework focussing on shared histories, the role of artefacts and the development of shared meaning. This discussion addresses some of the challenges and successes of these meetings and the implications for further investigation into online modes of social moderation.

SOCIOCULTURAL THEORIES OF LEARNING

Generally, sociocultural theories of learning involve understanding learning as occurring through social interactions that are defined, and made sense of, within the cultural context in which they take place. This body of theory and research often draws from, and builds on, the cultural-historical work of Lev Vygotsky. This work develops concepts of cognitive development as occurring through engagement in activities with others, particularly those more experienced with the tools and protocols of the culture.

Sociocultural theories of learning understand that through the collective pursuit of, and engagement in activities, interactions occur that create and modify practices (Wenger, 1998, p. 45). Learning occurs as individuals develop knowledge and practice as a shared enterprise. Changes in practice and identity occur within the same time frame, in a holistic sense so that one does not precede or follow the other. Rogoff (1995) describes shared meaning as the result of appropriation in which both the learner and practice are transformed through engagement. In this process mind is considered non-local such that over time knowledge and practices become part of the collective knowledge, or the 'communal memory' (Wenger, 1998, p. 46), of a group.

It is difficult to separate a discussion of interconnected relationships into component parts. Yet the tools of analysis require just that. In this paper, the concept of 'belonging' to a practice is explored (Wenger, 1998). The analysis focuses on the factors that have supported or hindered teachers to work together with a common sense of purpose to develop shared meaning. The discussion takes into account conditions such as developing a sense of trust and establishing shared concerns. While identity within the practice is also considered, it is not the focus of this analysis.

RESEARCH DESIGN AND METHODOLOGY

This paper focuses on the data collected through the observation of one online moderation meeting, the interviews with the three teachers (T1, T2, T3) involved in this meeting conducted pre- and post-moderation, and follow-up interviews in the year following the online meeting. The purpose of this online meeting was to moderate the Year 6 Maths comparable assessment task. The analysis is couched within the broader corpus of data collected from the twelve online moderation meetings conducted during 2007 and 2008.

The online moderation meetings were conducted using the WebEx[©] meeting centre. This web conferencing system affords synchronous interactions of teachers and secure, interactive document sharing. Multiple operating systems are supported within the WebEx[©] infrastructure

(THINKstrategies, 2006). To participate in the session teachers needed to have access to a phone that was located close by their computer and preferably hands-free for ease of use.

Social moderation (in the form of face-to-face meetings) has been practised for more than twenty years in the senior years of education in Queensland, but it is a new practice for teachers in the middle school years. Online moderation is a new and undeveloped practice for all teachers. Introducing online modes of moderation to middle school teachers can be considered as placing extra demands on teachers who are new to the moderation process. However, involving teachers in online moderation, when they do not have a history or collective memory of face-to-face moderation, may support the development of new ways of participating in moderation.

This paper focuses on the translation of policy between prescription and perception. In these early stages of teachers developing competence as assessors within a standards-based assessment system it is important to document how policy is being interpreted and enacted by teachers. This has been captured through the teachers' discussions of standards, moderation and their teaching practices. In their discussions, teachers highlight the factors of this process that are salient for them in terms of their assessment and teaching practice. It is anticipated that elements of this discussion may appear as new considerations in the teachers' planning and pedagogy. One signifier that a practice may be adopted, as a way of 'how things are done', is the uptake of the discourse of the practice and the verbalisation of ideas for implementation.

Change in practice involves new texts being incorporated into existing practices in a dialectical process that is dependent on the resources available to a participant. As new discourses emerge in policy and are supported by new resources and new practices, they may progress from 'imaginaries' to 'real change' as they are taken up into practice (Fairclough, 2005, p. 934). In the online moderation process teachers are involved in the use of new resources and practices. New practices may at first appear as jargon – teachers may use the words but there is limited deep understanding of the concept and it is not evident in changed practice. Next, teachers may use the words of the practice and they may start to make links to how practice may change as a result of their new understandings. Further, teachers may start to implement these changes into their planning and pedagogy. Finally, the practice is entrenched as a way of 'becoming' and 'belonging' (Wenger, 1998) within that community. This paper focuses on the initial stages of this process as new ways of doing are talked about and considered as potential ways of performance. The intent of this paper is to make explicit the thinking that may lead to action.

DISCUSSION AND FINDINGS

The development of a sense of belonging to a practice involves teachers developing a sense of trust, developing a shared meaning, developing common practices, and establishing shared concerns. Viewing these interactions and relationships through a sociocultural lens focuses the gaze onto participation as an essential feature of learning. Learning is evidenced in increased levels of knowledge and skill development in a practice (Lave & Wenger, 1991). This understanding of learning involves participating in increasingly complex activities that are a part of a practice. In the online social moderation meetings teachers' involvement is indicative of their confidence to work in such an environment and with themselves as an assessor in a standards-based assessment system. This work requires that teachers explicate, justify and negotiate their understanding of standards.

Participation can be considered in terms of degree and quality. Teachers may choose to contribute eagerly to the moderation discussion, or they may only contribute when invited, or not at all. If learning can simplistically be visualised as occurring along a trajectory (Lave & Wenger, 1991), then we can see that the teachers are variously placed along this trajectory in terms of their experiences and capabilities to work within a standards-based assessment system. The positions that the teachers take up, and are given within the moderation practice, will affect the potential learning that takes place (Hall & Murphy, 2008).

Shared histories

Practice occurs within an historical and social context (Wenger, 1998). An online meeting brings together diverse histories and cultural contexts, but also the shared histories and contexts of policy, being a teacher, working with standards, and assessing QCATs. Online moderation brings together histories of face-to face conventions of interactions and the creative construction of new ways of interacting that develop as the meeting progresses.

Teachers' sense of professionalism and professional conduct, their sense of solidarity in working towards common meaning of the standards played an important role in the successful functioning of the online meetings. Although Education Queensland has defined protocols for moderation meetings (Queeensland. Department of Education Training and the Arts, 2008), these protocols will be enacted in practice as shared experience. Over time, 'old timers' to this form of meeting will guide 'newcomers' through their interactions (Lave & Wenger, 1991), but at present online modes of moderating are in their infancy and all teachers are newcomers to this practice. In the early stages of this practice, it is important that teachers are supported in this new environment to effectively communicate and participate.

In the brief convergence of different micro-cultures that is an online meeting, it remains important that professional conduct remains foremost in teachers' interactions and integral to the practice of online moderation. This was evident in the focus online meeting in the initial stages as one of the teachers hesitantly queried the judgement decision on one work sample from another school, searching for the words to frame her query. The following extract is taken from this part of the discussion:

> I think we also need to look at the rest of the task. I think you're right. I just wonder what impact that should have on the marking. Actually, I mean I'm not being, you know, judgmental of it or anything, I just wonder, some teachers I think their judgments would be heavily altered by those slight miscalculations there. (T1, online moderation meeting, 2008)

Later in the meeting, the hesitancy in which this statement was spoken is replaced by a more fluent and seemingly confident critiquing of samples:

> I think what confuses me is just how bizarre that answer is, that's all...I can't see any connection. (T1, online moderation meeting, 2008)

The apologies and obvious searching for the correct words, which are a part of the earlier statement, have been omitted in this and other later statements.

In the focus online Year Six Maths (QCAT) moderation meeting the teachers worked to successfully reach agreement of the standard of each work sample. Meaning was established on the interpretation of 'consequential error' and how this affects overall judgement; on the use of evidence to inform a judgement; and the different evidence required for different areas of mathematical knowledge and understanding. Through this process of collaborative knowledge production, the teachers reported a greater confidence of themselves as assessors in this system. When meaning is developed through a process of negotiation, mind is

considered agentive such that learning will involve some form of action, or intent to act on the part of the participant. Mind is understood as being located in the interaction. Understanding and knowledge develops in and through the activity (Bredo, 1994). The teachers are developing a shared history.

The teachers' recent histories include ways of practising face-to-face moderation and working within a standards-based assessment system. They share that history but as separate practices. The teachers do not share a repertoire of practice until they have engaged in the online meeting and negotiated practice. This shared repertoire of practice then becomes disengaged as the teachers leave the meeting and renegotiate practice within their local setting. Wenger (1998) considers a shared repertoire as a characteristic of practice. Online modes of moderation provide a context to develop shared repertoires of practice – teachers come to the meetings with a form of common history but they do not come to the meetings with shared practice. The purpose of the meeting is to generate shared meanings and practices. As one teacher stated;

> It [the online moderation meeting] has given me a clearer, bigger picture of education across the state, and particularly between state and independent sectors as well...It was...an encouragement that we're all on the same page and we all want the same things and we are all assessing for the same purposes. (T1, Telephone interview, 10/02/09)

The understandings taken from this meeting by the teachers were later shared with colleagues in their local settings. Although in an online meeting, the teachers disconnect from this gathering, the 'communal memory' (Wenger, 1998) may continue and be propagated in their local contexts. The collective construction of knowledge about standards-based assessment has contributed to the teachers' understanding of this process and has manifested in their practice in diverse ways. This is evident in different conversations with the three focus teachers in 2009, the year following their involvement in the online meetings. All of the teachers were still planning to include more investigative work in their mathematics lessons in some form, focussing on students' explanations of their reasoning process, but all were at different stages of this implementation. For example, one teacher stated;

> I've got to get the teachers [in my school] to acknowledge the importance and value of it [investigative maths] for them to then be able to plan, and once they start seeing the value in their classrooms – and I've already got a few that are – that's going to be a key part of developing that into our regular weekly planning. (T1, Telephone interview, 10/02/09)

The communal memory has been acted on within this teacher's sociocultural context. It is this interaction between the communal memory and other interactions within the teachers' work environment that has shaped the different responses to the possible actions that followed.

The teachers' mutual searching for common meaning was successful by their reckoning because it was conducted as a joint enterprise. But the joint enterprise does not exist solely with the teachers. The teachers are also in this enterprise with the Queensland Government. It is the government through their policy which dictates a requirement of common practice and understanding of the standards. The notion of common practice from a sociocultural perspective is problematic if it is also understood as homogeneous practice. QCAR policy states that this is not the intent of this policy[1]. The policy text appears to be positioned to take into account the different subjectivities of the teachers involved, acknowledging that practice will look different in the various cultural contexts in which it is enacted, while also providing a basis for a shared history.

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[1] In some instances teachers' interpreted this policy discourse to mean commonality of practice.

The Queensland Curriculum, Assessment and Reporting Framework white paper (Queensland. Department of Education Training and the Arts, 2005, p. 2) states;

> Rather than seeking 'sameness', the framework promotes greater comparability across Queensland schools. It presents a way of achieving more commonality in what is taught while supporting diversity in how it is taught. The framework takes into account the distinctive needs of students and school communities across Queensland.

The framework as intended promotes 'greater comparability' and 'more commonality' through the Essential Learnings and the establishment of standards of achievement. The enacted practice of 'greater comparability' and 'more commonality' is observed as teachers strive to understand another's' judgement decisions and inculcate this understanding into their personal practices and understandings. Teachers stated that their aim in participating in moderation practices is to similarly enable them to have a deeper understanding of their own judgement making and assessment practices, and importantly whether these align with other teachers' judgement and assessment practices ("to see how others think", "parity of judgement", "consistent with other schools"). However, a sociocultural lens allows us to see the multiple interpretations (and misinterpretations) of policy that will be enacted in the moderation meeting and in practice. The importance of the online moderation meeting, with capabilities to connect teachers across diverse areas of the state, is highlighted as the need to provide opportunities for teachers to negotiate and contest their interpretations of the standards.

The role of artefacts

Wenger defines practice to include the tools, artefacts, symbols, images, language, conventions, rules, assumptions and behaviours that can be explicit but also implicit. In this understanding of practice, Wenger makes the distinction between tools and other elements involved in interactions, for example, language and symbols. Other sociologists, for example, Wertsch (1991) do not make this distinction but rather refer to all of these elements that shape action as cultural tools. Deleuze and Guattari (1987, p. 90) state that it is a mistake to consider tools in isolation, "tools exist only in relation to the interminglings they make possible or that make them possible". What is important in sociocultural theory is that cultural tools can only be understood within the practice that they shape and are shaped by. These tools act to either support or to confine the thinking of individuals within a practice (Rogoff, 2003; Slack & Wise, 2005).

To support the moderation process, a set of resources were prepared by the Queensland Studies Authority (QSA). These included Teacher Guidelines, annotated samples of marked student work; and the Guide to Making Judgements (criteria sheet). Teachers frequently stated that they had read the Teacher Guidelines but did not recall its contents. However, many teachers had attended information and/or training sessions where the discourse of standards-based assessment had been introduced to them and instructions provided on how the standards should be used to inform their judgements. Policy, in such cases, has been translated by an intermediary and delivered to the teachers who enact this in their practice from within their own conceptual framework. Policy enactment involves a recontextualisation into the local context where policy is "reworked, tinkered with, nuanced and inflected" (Ball, 1998, p.126).

The QSA resources supported the development of a shared meaning of the standards as the teachers used these texts to guide and scaffold their decision making process. In these instances the meaning embedded in the text is accessed through the teacher's history of working with the genre and content of the texts, and consequently supported or hindered

through the interactions with other teachers' interpretations of the same texts and their successful expression of their own thoughts (Vygotsky, 2003). The following extract from the focus moderation meeting, shows T1 attempting to explain how a student can be graded at a high level for their 'knowledge and understanding' yet at a low level for their 'communicating' and 'thinking and reasoning'. In this example, the meeting facilitator (F) asks the teachers to represent their thinking using the Guide to Making Judgements.

> T2:   We did discuss at moderation level one of our students fell down with, just in the 'communicating', it was just in 'thinking and reasoning'. You put him down in 'thinking and reasoning' and 'communication'.
> F: So if we go to the Guide to Making Judgments on page six of that document, can you, where would you place this child, in the 'knowledge and understanding'?
> T2:   Where are we? Where would I place him?
> F: In the 'knowledge and understanding' pole.
> T2:   I definitely wouldn't go below a C. I'd even be tempted to maybe go to a B. But I would say a lot lower in 'communication'.
> T3:   Yeah, I agree with that. I would probably bring the 'communication' down and bring the 'knowledge and understanding' up. (Online moderation meeting, 2008)

Products from the online moderation meeting act as 'memory' to support the teachers' learning process. The recorded annotations can evoke memories of discussions and negotiation, and the meaning that was developed through those discussions to support future decision making processes. For example, the screen capture of the criteria sheet from the discussion above was sent to the three focus teachers after the meeting. Four months after this, the teachers were asked about their memories of this discussion and how this discussion had impacted on their future teaching and judgement practices.
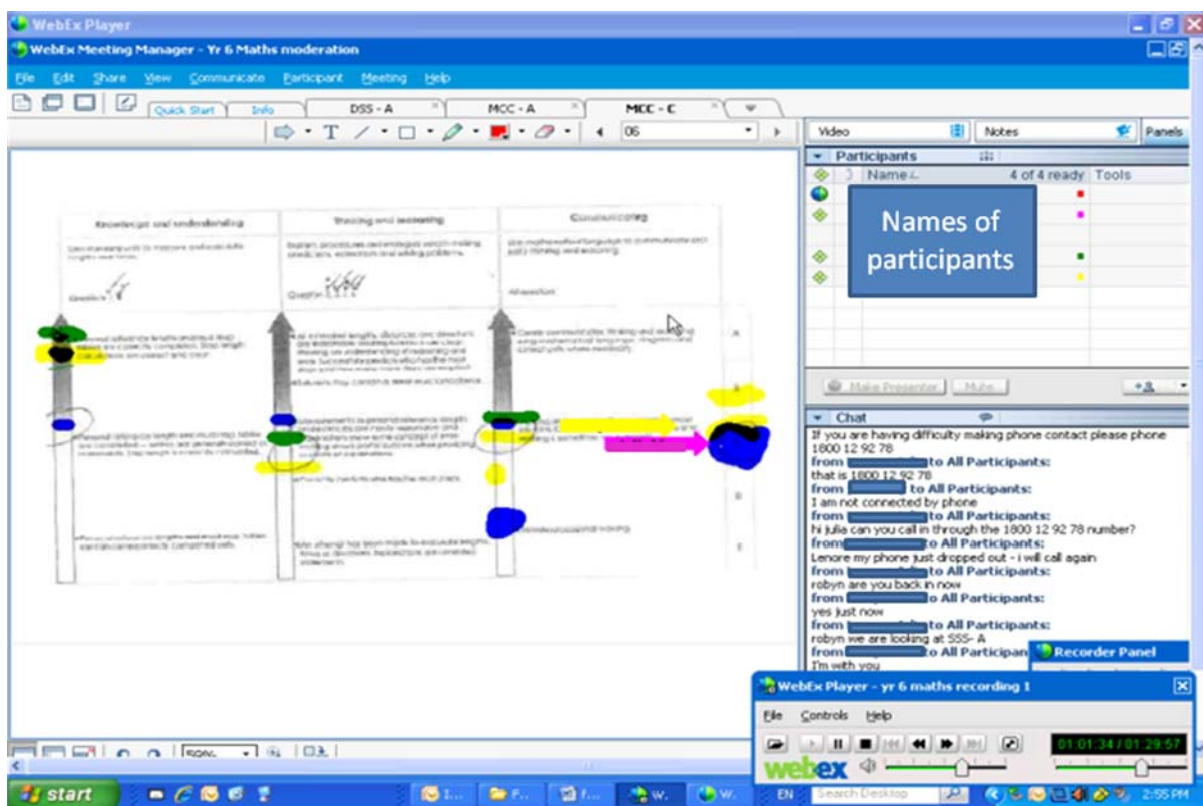
The teachers remembered this discussion and responded that they now realised the importance of looking for evidence in the work that matched the standards descriptor. For example, T2 stated;

> Well, one of the things we looked at was, um, one of the things that came out in that meeting in particular was the evidence, what we mean by looking for evidence of the essentials [inherent in the criteria and standards descriptors] in, when we're doing assessment...For example, you might just look at a student's work, you might see the answer et cetera and think, okay, that's a 'C', but when you look closely at what the essential is asking, and then look just specifically for evidence of that particular essential, and this is what we discussed, we actually saw evidence of this that we hadn't seen before and then we moved that mark up, because even though it did look like a C standard work, because evidence of that essential was there, we moved it up to an A. (T2, telephone interview, 12/02/09)

All three focus teachers spoke of sharing this experience with their colleagues in their local contexts. These practices may differentiate as the local is implanted on the online experience, and as memories are interpreted, reinterpreted and transformed through practice. It is only through broadening experiences and moving beyond the local context that common understandings may be translated across a diverse area and population. Artefacts can support this development.

Developing a shared meaning

It is through discussion that a shared meaning may or may not develop. Vygotsky (2003) discusses the relationship between thought and word as occurring through a series of planes that move from thought to inner speech to external speech. Highlighted is the relatedness yet disjunction between the three planes. One can hold a thought yet have difficulty expressing this idea in words. When translating thoughts, a dissection has to take place so that meanings can be shared. It follows then that words are only an approximation of a thought. Vygotsky (2003) maintains that analysing words alone is not enough that we must also understand the motivation behind the utterance.

For the teachers, the moderation meeting provides an opportunity to make meaning of the multiple dimensions of a standards-based assessment system. Meaning occurs in part through the negotiation process of the moderation meeting, in part through teachers' willingness to actively participate in this practice. For teachers with a history of moderation, similarities in students' responses start to become evident and they use these experiences to guide themselves and the other participants through the judgement process. In the following example, the student has recorded an incorrect answer in the answer box which is located on the opposite page to the working out section. The answer is correctly computed and recorded in the working out section.

> T2:   So this was originally a B, we originally gave this one a B because of this question. And then we changed it because we saw this [evidence]... And this bit of working out at the bottom here as well...which shows the correct answer. So we originally had a B, but then we changed it to an A because we found the 1110 metres and the correct amount of steps, even though if you look on the next page, it's got the wrong answer...
>
> T3:   Well my first thought is it's very unclear. It's very hard to understand. I'm just having a look at the criteria of the whole thing and it does say in 'Thinking and Reasoning' that 'explanations are clear'. To me that's not clear. But then I can see, yeah. You've got the right answer there it's just not clear...
>
> T2:   And all his other working is correct, because it's [the grade is] not just based on one [response]...
>
> T3:   No, that's exactly right. It's not just based on one.
>
> T2:   So, yeah. But yes, the point is if they've got the right answer in their working and then they've written the wrong answer, what can you do about that? We decided to put him back up to an A because of…we saw that evidence there...That was, because we looked at the paper as a whole and we had realised that he'd actually got everything on the paper right except for that last answer that he wrote and he had, 'cause he had it right on his answer, yeah, on his working, but not as he wrote his answer. (Online moderation meeting, 2008)

In this example, T2 has demonstrated to the other participants how in her experience this work is demonstrative of an A standard since teachers need to consider this answer within the whole response. T2's discussion has supported the teachers to understand judgement making in a standards-based assessment framework as a holistic process.

It appears evident that the crucial element to developing a shared meaning is the teachers' commitment to understanding the reasoning behind another teacher's judgement process. This appears to be the link between teachers progressing as learners within this practice, and those who resist a change in practice. In the focus online meeting, the teachers actively pursued meaning as they searched for evidence of a standard to support a judgement and negotiated their understandings. In this search and the discussion that occurred, the teachers reached an understanding of a standard of work that none of them believe could have been reached on their own.

> I think it was very helpful also to listen to the way other teachers, you know, especially teachers that you've never had any contact with before – listen to the way they interpreted the essentials and the standards and, um, and listened to, you know, what they saw as the evidence and, um, yeah, just to hear what they had to say seemed to shed a whole different light on what I thought I had seen previously. (T2, telephone interview, 12/02/09)

Skill in negotiating was important in this discussion. It was the persistence and desire of the participants to work through any differences in interpretation that led to a common meaning being established.

In each online moderation meeting, the teachers spent a considerable amount of time, discussing the judgements awarded on the first student sample. This initial lengthy and involved discussion of the first work sample appears to be a crucial element of the meeting. In this discussion the teachers developed their understanding of the standards using this one sample. The result was that quite often, subsequent work samples were discussed and agreed upon within a shorter time period as some shared understandings had already been achieved[2]. With more experience, judging a standard may become routine, but only to a degree, as Vygotsky (2003) states,

> The connection between thought and word, however, is neither performed nor constant. It emerges in the course of development, and itself evolves (Vygotsky, 2003, p. 398).

Tasks will change which will require new conversations of the demonstration of quality. Further, responses that lie on the borderline of standards will continue to evoke new discussions and negotiations. Learning from moderation meetings entails engagement with the process of negotiation. Wenger (1998, p. 53) uses the term 'negotiation' to "convey a flavour of continuous interaction, of gradual achievement, and of give-and-take". The production of meaning is situated in negotiated practice.

While the practice of moderation demands a thorough process of negotiation and discussion, time constraints work against this. The promotion of online moderation meetings as time efficient (they eliminate the time for travel, and allow for the perusal of tasks before the meeting) impacts on the meeting itself[3]. While Wenger (1998, p. 86) describes the negotiation

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[2] It should also be noted that by the end of some of the meetings, some teachers appeared more willing to agree so that the meeting could come to a timely close.

[3] To organise suitable meeting times across diverse locations will inevitably involve meetings that occur after school hours. It is a different scenario for teachers to meet face-to-face after school for a moderation meeting

of meaning as a temporal process where practices are developed over periods of time, highly intense interactions and practices may form in shorter time periods. This is where online moderation meetings may be positioned, as short but intensely negotiated meetings.

In online meetings, teachers need to swiftly develop ways of working together harmoniously, with negotiating meaning as part of this practice. They also need to ascertain the knowledge base of the other participants and how this knowledge assimilates with their own knowledge and understandings. Sharing practice is one way the teachers are able to rapidly develop this rapport. For example, in the focus online moderation meeting, the teachers discussed their end-of-year preparations and deadlines for reports. This intercourse enabled the teachers to establish a form of swift collegiality (Meyerson, Weick, & Kramer, 1996). Though they work in different sectors of the education system (private and state), they face similar demands within these last weeks of school. Through this discourse the teachers can recognise each other as 'members of the same team'. These interactions help to strengthen the links that may support the productive running of an online meeting. As the meeting progresses other interactions will either continue to strengthen these links or will cause them to weaken or break.

In an online moderation meeting teachers must also learn in a quick space of time, how to interact with their unsighted colleagues, and how to best be heard. In the focus online meeting, when one teacher first raised her concerns with the marking of another school's work sample, her words are said slowly and carefully. In the latter part of the meeting, as ideas are discussed and negotiated, that hesitancy has left her speech pattern. In the short course of the meeting, her actions have been tuned to her fellow participants. One teacher, who struggled to articulate her understanding of 'consequential error' to another teacher early in the meeting, does so with apparent eloquence to third teacher when she later joins the meeting. Fine tuning their ways of engaging, and developing a way of talking about their practice developed swiftly in the meeting.

These practices were not present in all of the online meetings that were conducted. Some teachers did not tune their responses to their fellow participants. One participant left a meeting early in frustration from the interactions and choices made by another participant. Other participants dominated the meeting, rejecting different interpretations or leaving other opinions unvoiced. Such destabilising actions and events did not produce the connections necessary for teachers to appreciate the learning potential of the meeting. Teachers may still have been involved in reflective practice as a result of the meeting discussion, but when the negotiation process is dysfunctional in some manner then the links to teaching practice are also destabilised.

In the online meeting, the teachers were involved in sharing ways of 'doing' online moderation, while working towards consensus and a common understanding of the standards. The understandings taken from the online meeting were shared at a later date with colleagues who did not participate in this negotiation process, yet benefited through this linked practice. Although an online meeting does not involve "sustained mutual relationships" (Wenger, 1998, p. 125), it is also insufficient to describe it as "a set of interrelated practices" (Wenger, 1998, p. 126). A better analogy is to view this developing practice as a network or a process of assemblage and articulation (Slack & Wise, 2005). Elwood (2006) resembles this to an 'entanglement', where all human and non-human elements (including thoughts, concepts, language etc) exist in connection with other elements, and as a part of, broader systems.

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where they share snacks and leave together, to a situation where one teacher is physically alone in a location connected to others through a computer for extended hours after colleagues have left the school.

Wenger (1998, p. 129) uses the term 'constellation' to describe the overlapping of practices, the role individuals play in brokering these practices, the spread of practices, the negotiation and reconciliation of perspectives, and the differentiation in identity formation. The online moderation meeting is one link in developing this assessment practice across a diverse area.

CONCLUSION

The online moderation meeting occurs once for an hour to an hour and a half. While this is insufficient time to establish shared practices, the online moderation meeting may be an important link that contributes to the establishment of shared practices. The contributions of teachers in the meetings may work to support the development of common practices and shared meanings. It is important to note that 'common practice' does not refer to homogenous practice. When viewing teachers' actions from a sociocultural perspective, it is evident that the teachers will reinterpret their discussions through their different histories, school contexts and knowledge bases. 'Common practice' may present through a range of pedagogic strategies. Online moderation meetings do not produce a 'community of practice', but they may contribute to developing such practice. Some of the meetings that have run have been far more successful than others, yet all have involved discussion and all have caused the teachers involved in some ways to reflect on their practice through the meeting discussion.

Online moderation provides teachers with the opportunity to develop as competent assessors within a standards-based assessment system by having their judgement process validated outside of their local geographical boundaries. But teachers need to be open to, and feel supported in, these opportunities for learning. What is crucial to these processes is the relationship between the sociocultural context of the online moderation meeting and the practices adopted by the teachers in the meeting, and the willingness of the teacher to be involved in the multiple dimensions of this practice.

Lenore Adie is a lecturer with the Queensland University of Technology. She is currently undertaking her doctoral study investigating assessment and online moderation processes. This study is focusing on the formation of teacher identity within this context viewed through sociocultural theories of learning. Lenore has worked as a primary school teacher and in administration positions in state and private schools within Queensland, Australia.

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