A POWERFUL THEORY OF ACTIVE ENGAGEMENT

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Contemporary ideas about learning tend to prioritise contexts and learners' experiences for understanding engagement and participation (see Civil and Planas, 2004) and, in doing so, mark a new sensibility towards a central dilemma within the discipline – the individual/social relation. I want to suggest that engagement is more complicated than the prevailing dominant discourses would lead us to believe.

My approach is to identify one strategy by which the individual/social problematic is currently being worked through in social science and to argue for its usefulness in exploring student engagement. This intellectual context, and situated within it the poststructuralist work of Foucault (*e.g.*, 1980; 1981), offers a fresh and helpful way to theorise the relationship between the individual and the social. It offers, in particular, a way to account for and examine multiple layers of engagement in classroom settings that are routinely characterised by shifting social relations. The potential of such work to move forward current understandings of learning within the discipline is not to be understated.

Active engagement is a difficult, ambiguous and often simplified term. I want to draw attention to aspects of active engagement that do not map neatly onto current understandings of learning in the classroom. The kind of analysis that features in much contemporary research in the social sciences is grounded in the concrete detail of particular people within particular situations, but unlike many others, care is taken not to gloss over struggles, conflict, passion and vitality. Nor are the effects of the social situation on people's sense of self worth underplayed. The question is how these accounts might contribute to the self-social relation with regard to active engagement in mathematical learning.

Problematising aspects of learning is not a new approach. Gagné's (1965) interpretation of active engagement in learning as behavioral change is exemplary of the classic tendency in mathematics education. For Gagné, learning could be observed and shaped through successive reinforcement. In his understanding of learning as hierarchical, Gagné proposed a pedagogical strategy, 'building blocks', that emphasised automatising mathematical skills through extended practice. Thus in Gagné's view, active engagement meant drill and practice routines and these were crucial for the acquisition of knowledge and the development of more complex systems or higher order concepts.

New paradigms, influenced by cross-disciplinary practices, have tended to move away from theoretical traditions where the conditions of learning are said to 'hold good' for learners, irrespective of their history, interests and circumstances. A number of theorists during the last decade have confronted the individual/social relation and proposed a range of viewpoints. For example, both constructivists and situated cognition theorists promote the social/individual relation but they disagree over where the emphasis should lie. Following on from their claims about the nature of the learner, their particular vantage points have sparked different treatments to the nature of learning. As I have noted elsewhere (Walshaw, 2004), social constructivists offer robust conceptions of interiorization and contend that mentalist processes to do with learning are shaped by social conditions. Situated cognition theorists offer sophisticated and persuasive criticisms of the central processor model of mind and, in their formulation, the social is more than a learning shaper – it is constitutive of learning. Both of these perspectives provide coherent explanations of active engagement that suggest critical interrogations of the other.

All learning theories allow us to understand active engagement more acutely, but by bringing certain aspects of reality into focus for us, they inevitably put boundaries around the scope of our vision. In valorising certain aspects of learning, both the constructivist and social cognitivist viewpoints, in their respective ways, cause us to ignore important aspects of the individual/social relation. And it is those aspects of the individual/social relation that are integral to the theoretical position developed in this article. Arguably, the individual and the social are both important as discrete entities in learning, but it is the relationship between the two, rather than the polarity, that I want to focus on.

Active engagement: individual and social stories

If active engagement is central to learning then we will want to know what it really means and precisely how it does its work. The constructivists offer a useful starting point in their re-evaluation of the focus on learning as outward behavioral change. They point to a lack of internal learning mechanism within behaviorist formulations and suggest that cognition might be described more adequately as mental activity to do with interactions and reflections upon the environment. The constructivists aimed to show that cognition can be structured and that it cannot *but* be inward-directed, at least in the sense that the learner is 'active', however passive the learner may appear to be in the learning process. Active engagement is equated to intrapsychic activity in response to factors in the environment.

The influences of Piaget and the post-Piagetian work of von Glasersfeld are well known (see Steffe, von Glasersfeld, Richards and Cobb, 1983). In the constructivist view of active engagement, the mind is privileged, while circumstances and conditions are cut down to size. Constructivist perspectives that draw their inspiration from Vygotsky's (*e.g.*, 1978) work, ascribe a greater weight to the role of social processes and language in active engagement.

Specifically, active engagement takes place when learners mobilize cultural resources – in the broader interpretation these might be people, artefacts, technologies, symbol systems, environmental designs, rituals, and ways-with-words – in order to develop, appropriate, and exchange mathematical understanding. For example, Cobb and McClain (2001) maintain that action and thinking are bounded by cultural resources. Learning for them involves active construction by the individual and evolves through social interaction. They contend that since social practice is a mechanism that brings about learning, the way in which mathematical truths are constituted interactively by the classroom community is integral to any analysis of individual student's learning. Their emergent perspective (Cobb and Yackel, 1996) appropriates concepts from sociology to investigate active engagement by means of the construction of mathematical and classroom norms within classroom practices.

Krummheuer (2000) draws on ethnomethodology, symbolic interactionism, and cultural psychology to develop his theory of interaction of content-related learning. For him active engagement in classroom interactions "is the constitutive social condition for learning" (p. 23). Hence learning "is characterized by the subjective reconstruction of societal means and models through negotiation of meaning in social interaction" (Bauersfeld, 1988, p. 39). In Krummheuer's analysis of classroom episodes two preoccupations are apparent. One is theorizing engagement: here the task is to understand the ways and means by which mathematical problems are negotiated and solved within classroom participation. The other is theorizing the learner, and understanding him or her as the stable, core, knowing agent, cast within the dynamics and the regularities of the microculture in the mathematics classroom: here the task is to analyze the ways in which the learner makes sense of mathematical ideas as he or she interacts within a sociocultural relationship with others.

If interactionist formulations of cognition are influenced by the social, enactivist accounts bring to the fore the dynamic adaptations of the learner. Davis (1995, 2001; Davis and Simmt, 2003) makes a case for enactivist thought and complexity science in which mathematical learning is understood as a complex learning system. Enactivist analyses, drawing on the biological systems ideas advanced by, among others, Maturana and Varela (1987), give prominence to the *interconnections*, rather than the separations, between individual and environment. For Davis and Simmt (2003):

> learning is understood in terms of ongoing, recursively elaborative adaptations through which systems maintain their coherences within their dynamic circumstances. (p. 138)

The interest is not on how the individual construes the mathematical world. Neither is the focus on some collective understanding. Rather, the individual and collective are investigated in their complexity within "nested learning systems" (*ibid*, p. 142).

Towers and Davis (2002) claim that radical and social constructivist approaches to cognition implicitly embody a "complex evolutionary dynamic" (p. 317). They make use of Pirie and Kieren's (1994) *Dynamical theory for the growth of mathematical understanding* to explore students' engagement in knowledge development. For them, individual and collective knowledge are not uncovered, nor are they invented; rather they emerge and evolve within the dynamics of the spaces students share and within which they participate. The learner cannot be extracted from his or her mathematics precisely because learning occurs as part of a layering of complex systems of relationships within constantly changing learning circumstances and conditions. This point is developed by Lakoff and Núñez (2000) in their theory of embodied mathematics. Mathematical ideas, situated in and productive of larger, social, cultural and historical thinking, are:

> not held by institutions or individuals but are embodied by human beings with normal human cognitive capacities living in a culture. (p. 359)

Embodied mathematical learning theory, like *situated cognition* theory, views learning as not merely occasioned through the mechanism of social practice but as generated mutually and relationally from active and ongoing engagement within a community. Engagement is bound up with:

> interconnected views of perceptions, cognition, language, agency, the social world, and their interrelations. (Lave, 1988, p. 66)

Greeno (1997) notes that engagement is not restricted to face-to-face interactions with others. Instead all individuals are viewed as elements or aspects of an encompassing system of social practices and individuals are viewed as participating in social practices, even if they act in physical isolation from others (Forman, 1996; Saxe, 1988, 1991; Scribner, 1984). When learning occurs collaboratively in the context of shared events and interests, it points to something quite different from the idea of active engagement being influenced by the context. It marks instead a learner inextricably connected *to* a dynamic social context.

Underlying this notion of active engagement is a theoretical position that seems to assert that we can only know the world within the meaning systems established through the communities of practice in which we engage. Indeed, this kind of conceptual grounding of knowing (given in the work of post-Vygotskian activity theorists such as Davydov and Radzikhovskii (1985), Engeström (1987) and Vygotsky's collaborator Leont'ev (1978)) has, in part, influenced Lave's and many other situated theorists' work.

A powerful theory of active engagement

Arguably, both the social and the individual are fundamental to active engagement and hence both are integral to learning. In my understanding of active engagement, it is the mutual, relational effects of the social and the individual that are pivotal to learning. In developing this understanding I will want to make a fruitful convergence with ideas that have generated much productive work within the social sciences. These are analyses that are significantly informed by aspects of Foucault's work.

Within our own discipline, Bauersfeld (1988), Cobb *et al.* (1997), Lave (1988) and others have presented sophisticated ideas about learning in relation to active engagement within evolving relationships between people and the settings in which activities are conducted. Their analyses are able to deal with the material and the subjective simultaneously. Although they have provided valuable insights into the self-social relation by moving the interpretation towards what Bourdieu and Wacquant name as "ontological complicity" (1992, p. 20), I do not think that the concept of active engagement, as understood through their explanations, sufficiently addresses how individuals are differentially positioned within specific practices, or those practices define and produce learners in different ways. We know from Yackel and Cobb (1996, p. 461), for example, that what counts as legitimate mathematical practice has decidedly normative aspects. What is not accounted for are the different degrees of coherence between subject positions and practices.

One of the central issues emerging from that gap is an understanding of intersubjectivity and the part it plays in the production of mathematical knowing. Foucault's (1981) characterisation of intersubjective arrangements draws attention to the discursive (and hence conceptual) resources made available in social encounters. Thinking about engagement in learning in this way shifts our preoccupation with functionalist accounts of the person adapting to social and mathematical norms. It also moves the explanation beyond descriptions of:

> the state where each participant in a socially ongoing interaction feels assured that others involved in the interaction think pretty much as does he or she. (Thompson, 2000, p. 306)

Bringing Foucault's thought to bear will integrate previous analyses of active engagement with a concern with the governance and regulation of social interaction.

Through the concept of *discursivity* Foucault is able to connect thought and action and provide us with a more nuanced understanding of learning. Discursivity is not simply a way of organizing what people say; it is also a way of organizing actual people and their systems. This is because discursive spaces map out what can be said, done and thought by systematically constituting versions of the social and natural worlds for us. In short, they are omnipresent knowledge producing systems. As Hardy (2004) has pointed out, they "shape the experience of being human" (p. 106). But their method is duplicitous; they mask their defining effects to such an extent that to the people concerned, their practices appear commonsensical.

Precisely because discourses operate in communal spaces, they are important for examining intersubjective negotiations surrounding the learning of mathematics. Learners are caught up within discursive practices within the classroom, just as much as they are in their everyday activities. Classroom practices operate with methods that govern, regulate and discipline learners according to a set of unwritten and often unarticulated rules. To understand the defining effects of school mathematics discursive practices, it is helpful to think of strands of power entangling everyone in the classroom from all sides.

In saying this I am not simply referring to the teacher/student power differential – I am saying that everyone in the classroom participates in a social web of power that allows him or her to develop as a learner. Put bluntly, power knits the social fabric of classroom learning together and regulates its practices. The discourses structuring intersubjective arrangements, including those discourses relating to the classroom's traditions, its material and technological forms, and its mathematical enactments, together with those discourses relating to individual differences with respect to class, gender and a range of other social determinations, all contribute to the development of our conceptual understanding, in unique ways.

When power is diffuse and dynamic in the classroom, then we need to understand its modes of operation in relation to the location of learners constantly in change. Faced with a relationship of power, spaces for a range of responses, reactions, and possible creative inventions may open up. The learner may respond in any number of ways, even though the exercise of power within intersubjective formations makes certain responses more likely. The best we can say is that active engagement and, hence, cognitive agency, is fragile. Despite our best intentions, and research claims to the contrary, mathematical autonomy is destined to be evanescent. It makes little sense then to talk of an expectation that active engagement will lead to shared meaning:

> [E]ven in the case of the most ordinary objects, the notion of 'shared meaning' is strictly speaking an illusion. (von Glasersfeld, 1996, p. 311)

In the next section I look into a classroom mathematical community that I studied (Walshaw, 1999) and, using a Foucauldian analysis, I investigate the methods of regulation operating through discursive practices of learning and explore how mathematical thinking is produced for different learners. The particular focus of the study was the exploration of gendered subjectivity in a senior mathematics classroom. As frequently happens during the course of research, other important features began to emerge. I pick up on aspects to do with the regulation of classroom learning that seemed more acutely apparent in the following episodes than in other transcripts from the research.

Sketching out instances of discursive governance of learners, I look at the effects of teacher, peer- and self-regulatory practices on learners, in homogenizing their mathematical experiences, in restricting their efforts at transformation, and in impinging on how they think and act. I will look, too, at how learners rework and sometimes resist classroom governance and normalization. In this way it will be possible to see how classroom discourses make mathematical knowing 'real' to the students and how power infuses the 'reality' of classroom life.

Active engagement in the classroom

The class is studying calculus and has been using the process of differentiation to find the gradient of a curve. Rachel and Kate are working on finding the gradient of the curve:

$f(x) = 3x^2 - 2x$, at the point (1, 1).

Richard and Blair sit behind them, a seating arrangement routinely chosen by all four. Amongst the 29 students in this class, these four are extension students and are the only 15 year old students in this class of mostly 16 year olds.

Transcription conventions; upper case words denote emphasis and loud voice; three dots (*e.g.*, "What's…") signal a pause or broken speech.

T: Two little steps: differentiation and then substitution. Make sure it's set out properly, not just a whole jumble of numbers with an answer at the end. Clearly distinguish between your original function and your derived function. Make this DASH very clear...

Rachel: Three x squared. So, it's $6x$ minus two. Is that one? [refers to value of x]

Kate: I don't get the dash.

Rachel: Get the dash? Put in the one. Yea, cos, it's a bit like a 'one'.
Now what do I do now?
You put it as x here, aye?
So you've got six minus two equals four.

T: [to class] Check with the answers each time you do an exercise. You know maths is a practise subject. You must practise things correctly.

Kate: [checking answers] WE WERE RIGHT!

Rachel: YEA!

They begin working on the next problem which they read as:

If $f(x) = x^5 - x^2 + 5x$, find the gradient of the curve at the point (2, 13).

Rachel: So now you have f dashed x equals five x to the four, minus two x plus five.

Richard: [to Rachel] That was quick.

Rachel: I LOVE making him feel stupid.

Kate: What's this one?

Rachel: It's two, thirteen [*cf,* (2, 13)]. Dashed. Um. OH, TWO.

Kate: So we'll put two at the...

Rachel: Five times. What's...?
Sixteen. OH? [giggles] What's five sixteens?

Kate: Eighty.

Rachel: Minus four. That's five. Eighty-one. UH?

Kate: [to Richard] What's the answer to number five?

[Working it out] Two. Sixteen. Sixteen times five...

Rachel: ...is eighty, minus four, plus five. So minus this four. That's plus one.
[To Kate, demandingly] Look it up.

Kate: [to Richard and Blair] What's number five?

Richard: Thirteen.

Rachel: [to Kate] Have you looked at the question?
So he's probably given it to us wrong.

Richard: YOU'RE wrong, not us.

Kate: [mocking] Oh, don't.

Rachel: [to Richard] IDIOT.

Richard: YOU'RE the idiot.

Kate: What number is it?

Blair: Who's the idiot?

Rachel: SHUT UP, Blair!
Number five, exercise fifteen. Not that THAT really helps.
What's the question?

Kate: We looked up the wrong...
We didn't get the right...
We didn't write it down properly.

Rachel: [in disgust] OH! Is it CUBED? It's cubed not x fifth!

Kate: Yea.

Problem is then read correctly as:

If $f(x) = x^3 - x^2 + 5$, find the gradient of the curve at the point (2, 13).

Rachel: So two squared. That's four.

Kate: Times five...

Rachel: What? Times FIVE? YOU'RE NOT TIMESING ANYTHING BY FIVE!

Kate: Yes you DO!

Rachel: NO. You've got to change that. Remember? So, that's a three.
Four times three is twelve.

Kate: Twelve. Minus four which is...

Rachel: Three.

Kate: Eight.

Rachel: NO. Twelve plus one, which is thirteen. OK?

Kate: [laughs]

By the time Rachel reached this mathematics class she had already learned powerful lessons from classroom discourses for doing mathematics. In the weeks she has been in this class, she has learned what does and does not count as student performance. Her learning, like all other students in the classroom, is governed through a range of strategies of regulation that ensure the production of a 'correct' mathematical learner. Through this she has learned the methods and normative positions produced for her as a student in this classroom. The teacher's view of mathematical learning has been made clear: that students learn from applying standard calculus techniques to a variety of situations and problems. Students will understand these concepts if they "practise things correctly". She has learned that correct practising can be validated by "check[ing] with the answers each time you do an exercise". This practising need not be individual. Indeed, in this classroom collaborative work is encouraged.

In Foucault's reading, school knowledge is produced and sustained through intersubjective negotiations built around particular discourses and practices.

In this particular lesson the teacher is acting as an initiator for how to go about framing and establishing the gradient of a curve at a fixed point. She constructs these parameters through two mediums: mathematical notation and speech. Anticipating potential transgressive action she directs her students' gaze towards the strategies that she has assembled and now requires from her students:

> Clearly distinguish between your original function and your derived function. Make this DASH very clear....

In this instruction she makes explicit a political and social order which she (the teacher) inhabits, differentiated hierarchically from her students. It is she who normalizes mathematical practice in this classroom, and it is the students who, through self- and peer-regulatory measures, perpetuate those practices.

Rachel actively engages with the set of manoeuvres that have been constituted for her, by modeling the 'correct reading' of mathematics, namely, identifying salient terms and assigning these with the appropriate notation. Power has inserted itself into her actions, her attitudes, her mathematical talk; in short, into her learning. She uses that reading of mathematics to regulate not only her own practice – but also to ensure that Kate is normalized into the practices of this classroom. Intersubjective peer relations of power contribute to the regulation of the mathematical discourses of this classroom.

What is readily apparent from this passage is that Rachel takes up quite readily the discourse of 'how one does mathematics' as constructed by the teacher. She is able to reproduce and naturalize the definitive moves: "Get the dash? Put in the one. Yea, cos, it's a bit like a 'one'". She is also able to discount other strategies that conflict with the logic established: "FIVE? YOU'RE NOT TIMESING ANYTHING BY FIVE!" This taking up of the available discursive tools provides her with access to a powerful position amongst her peers. Holding the ascendant position in her dialogue with Kate, there is little doubt about Rachel's position amongst her peers.

Kate has just checked her answer to a problem:

Kate: Wow! I'm RIGHT.

Rachel: First time for everything!

Kate: You're just jealous.

Rachel: No.

Kate: I'm going to do the whole thing.

Rachel: [laughs] You're not intelligent enough!

Kate: SHUT UP! [laughs]

The ways in which she regulates the mathematical practice of Kate in accordance with the conventions of this classroom is also apparent in the following passage. The two girls are applying the rules of anti-differentiation for the first time and we pick up at the point where the girls are working on anti-differentiating $24x^2$ and $8x$.

Rachel: I think that would WORK.

Kate: What?

Rachel: That's what I've got. But it didn't say that in the answer.

T: [close by] It should. If you differentiate this...

Rachel: That's what I did!

T: ...you get eight times three *x* squared, gives you 24*x* squared. Four times two *x* gives you eight *x* to the one, plus c. That's it.

Rachel: OK. Cool. [Teacher moves away]
'Course it was right. What am I thinking?

Kate: When you do 'plus c', do you do it twice? Do you do 'plus c' once or twice?

Rachel: Once.
X squared. I was looking at the wrong one in the answer. That's why I thought I was wrong and I was right.
It all comes from being dizzy.
[working] Yes, I GOT IT!
I'm ACTUALLY going to finish a maths book soon. [refers to her own exercise book] Isn't that scary?

Richard: [seated behind] I suppose you filled it up with letters and things.

Kate: [to Rachel] You ARE going to hit them soon, aren't you? [referring to the male students seated behind them]

Rachel: Mm.

To understand how mathematical meanings are made here for Rachel, we need to consider the structure of social relations operating at this moment of time and represented through a variety of discourses. There are several conflicting discourses at work. Engaging with their complexity enables us to see Rachel initially trying to work within the classroom mathematical discourse: "'Course it was right". Secondly, we see her mathematical practice in relation to gendered talk: "It all comes from being dizzy". In all this she is constantly repositioning herself with regard to what constrains and what empowers.

It would not be difficult here to make a case that, by ignoring Richard, Rachel is perpetuating classic gendered positionings. However, I feel that such an interpretation is over-simplistic. Contemporary gendered performance is a complex phenomenon: suffice it is to say here that the complexity places girls in ambivalence, both naïve and highly resourceful. My analysis reads it as marking Rachel's struggle to define her place within two conflicting discourses: that of the classroom discourse of finding gradients, and Richard's competing counter-discourse. In all this we can read the interplay of relations between the objects and techniques of the discursive practice of specific mathematics learning as employed by the teacher, the reading of this practice by Rachel, and the construction of, and distractions from it, in relation to her small peer group.

The next passage records Rachel and Kate working together on finding the gradient at the point (-1, -1) on the curve $y = 1/x$.

Rachel: One over x cubed.
OK. We can do this. [sounding confident]
No, we can't but we can try.
Oh. Cripes! Such a bad day!
Hang on! Doesn't the 'one' become a zero still?
So it's zero. So that becomes zero. So it's just x.

Kate: Cubed, isn't it?

Rachel: It's a zero. Over it. 'Cos zero divided by ANYTHING is zero.

Kate: I don't get that 'one'. You have to put that down, there ...

Rachel: Yea.

Kate: And you put it UP. You change it.

Rachel: Which one becomes negative?

Kate: The power.

Rachel: Yea. *X* to the negative three. Equals one times negative three x squared. UH?

Kate: Negative four.

Rachel: Why?

Kate: Because you're adding. You're taking away 'one'. When you take one away from negative three…

Rachel: Yea, yea. Ta.
So f dashed... What's the thing at? What point?
What? Negative one, negative one? [(-1, -1)].
One, negative three times negative one to negative four.
I'm totally all over the place now!
It's 'one', isn't it?

Kate: You go...

Rachel: One to the power negative four. UH? OH! Hang on, so that's just 'one' there. One, negative three, is 'one'.
Yea. Negative three. Yea.

The girls have, at this stage, had opportunities to see what counts as standard technique to finding the gradient of a curve at a point. They work hard at performing the required practices in order to be normalized into the discourse. This activity is fraught with conflict and contradiction but is finally resolved for them both. That resolution entails an intersubjective negotiation of ideas. Through this process what becomes clear is a see-saw of superordinate/subordinate positions assumed by the girls. That is to say, momentary switches in power relations take place as they work to regulate each other and themselves into the discursive mathematical practice of this classroom. In Rachel's words:

> We check against each other. We do that a lot and we race against each other and see who can get it down quicker. It's not a conscious thing. I mean, we work through it faster. I mean if I wasn't checking against her [Kate's] answers I'd be checking against someone else's answers. Most likely. And if I don't get it I start asking questions. (interview, August, 1999)

Conclusion

One of the distinctive features of scholarly work within the discipline has been the attention given to the individual/social relation with regard to active engagement in learning. Most noticeably, there has been a general shift away from early representations of the social and individual as dichotomous, unequal entities towards, in the first instance, a re-evaluation of the social and, most recently, an apparent trend towards the mutually relational effects of both concepts on learning. Indeed the contemporary explanation of active engagement as pivoting on the mutual, relational effects of the social and the individual, signals an historical moment in scholarly work on mathematical learning.

I have suggested that while this new interpretation of active engagement has enabled much productive work, at the same time it does leave certain aspects of learning unaccounted for. In my explanation of active engagement, I have identified one influential debate within social sciences that has the potential to move forward discussions on learning within our discipline. I suggest that Foucault's characterization of intersubjective arrangements, notably through his concept of discursivity, offers a helpful approach to theorizing and investigating the subjectivity-social problematic.

With examples taken from classroom episodes, and drawing on Foucault's work, I have looked sceptically at how learners construct mathematical truths. I have attempted to highlight how active engagement is produced in part in the complex history of the classroom in which learners are already inscribed, and by which their very actions, talk and written mathematical work are all made to signify. In this I attempted to see how power and knowledge relations are structured in the classroom by looking at how learners lived them and how these relations of power informed and politicised their mathematical work.

Active engagement in school mathematics is a complex phenomenon. It is largely circumscribed by something bigger than itself – discursive practices – working through a social web of power. Traces of the determining effects of power in relation to those discursive practices are apparent in any mathematical classroom community of learners. As part of a strategy for regulating the creation of school knowledge, active engagement might best be understood as informed by particular historical trajectories and sociocultural contexts – not in Lave's (1988) sense of participation within a context, nor in the Piagetian mentalist struggle with perturbations, but rather in the sense that learners are contextualized through their placement within the (sometimes conflicting) discursive practices of the classroom.

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