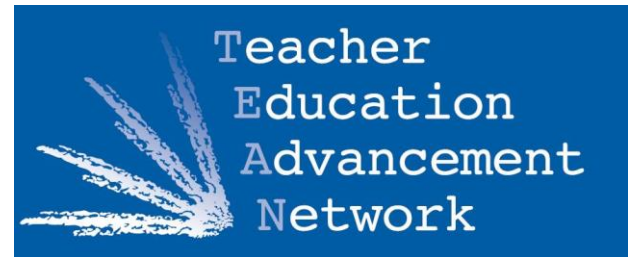


TEAN Conference 2024:

Selected Abstracts



A conference theme focused on analysis of classroom teaching, including the application of Legitimation Code Theory (LCT).

It is an ambition for TEAN that the application of Legitimation Code Theory (LCT), especially in relation to classroom teaching, should become a growing theme within conference and collaboration across the network. Beginning with the keynote from Lee Rusznyak but then in order of presentation at the conference:

Classroom Conversations: Supporting effective teacher talk about lessons

Professor Lee Rusznyak University of the Witwatersrand, South Africa

The keynote (50 mins) is available as a video at: https://youtu.be/MIAfCws4W_A

Student teachers can learn a great deal from discussing their lessons with mentor teachers. Ideally, this feedback addresses what they are doing well, what they could do better, and may provide guidance about new things to try. However, when the feedback is given in the form of unelaborated observations, judgements or lists of 'dos and don'ts', the potential for supporting professional learning is not fully realised. In this keynote, I show that there are crucial differences between conversations that empower student teachers to think about their work in more specialised ways, and those that offer useful but limited feedback.

I draw on a South African study that shows two ways that mentoring conversations can support effective student teacher learning:

First, when conversations shift between particular details of a lesson and general teaching principles, student teachers see examples of how practice is enacted in authentic contexts. These shifts are valuable because experiential learning becomes more easily transferred to future lessons, and into different contexts.

Second, when conversations offer elaborated, reasoned and explanatory accounts for what worked or did not work as intended, students gain insight into the inner logics of teaching. These insights are crucial if student teachers are to understand the reasons why some options are more appropriate or effective than others. These shifts also essential for them to understand the complex thinking work teachers do in every lesson they teach.

I use analytic tools from *Legitimation Code Theory* (LCT) to show how these shifts can be represented as pathways across the *semantic plane*. Classroom conversations that offer student teachers new insights into their teaching practices take fundamentally different pathways than those that simply commend student teachers on a good effort, and offer a few practical tips.

In the busyness of classroom life, there is no time for conversations that simply fulfil mentoring obligations but do little to advance professional learning. Understanding these semantic pathways provides a powerful roadmap that mentor teachers can use to hold conversations that extend student teachers' professional learning.

Analysing Teachers' Use of Representations in School Maths: The Semantic Wave

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Analysing classroom teaching is an important dimension of teacher education that supports student teacher learning. Using the tools provided by Legitimation Code Theory (Maton, 2014; Maton, 2020) helps to link analysis of teaching in a particular lesson, to organising principles for effective teaching. In particular the knowledge practices of the teacher can be revealed, and this helps student teachers to carry their learning forward and apply it in future teaching. In my doctoral research I investigated how the multi-dimensional subject domain of mathematics is recontextualised into what can be referred to as 'school maths' (Bernstein, 2000; Boaler, 2016). I focused on how teachers use representations to support students' understanding of mathematical knowledge objects (Sfard, 2000; Rau & Matthews, 2017), but the approach to analysis can also be usefully applied in different curriculum subjects. I generated data by capturing video of lessons and then conducting video stimulated recall interviews with the teacher (Lyle, 2003). It was then possible to use the concepts of semantic gravity and semantic density to analyse the use of representations in a temporal way, by tracing the 'semantic wave' of the lesson (Matruglio, Maton & Martin, 2013). This workshop will introduce the use of Legitimation Code Theory to analysis of classroom teaching and propose its more widespread application within teacher education practice.

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Examining knowledge-building for writing instruction in mentoring dialogues in initial teacher education

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The ability to transform disciplinary knowledge into a school subject that can be taught to students and to transform knowledge about classroom practise into more abstract pedagogical reasoning is at the core of teachers' powerful professional knowledge (Gericke et al., 2022). However, it has been argued that the gap between university-based and practise-based courses in initial teacher education can be a barrier to knowledge transformation between different educational contexts (Zeichner, 2010). Although mentoring in teacher education has been extensively researched (e.g. Hobson, 2009), few studies have investigated the processes of knowledge transformation in verbal interactions between student teachers and their school-based mentors. The aim of this qualitative study is to contribute to a better understanding of the potential for building knowledge about first language (L1) writing instruction in mentoring dialogues.

Drawing on the Semantics dimension of Legitimation Code Theory (LCT, Maton, 2014), this study examines how knowledge about L1 writing and writing instruction in secondary school is verbally mediated, co-constructed and transformed in 16 mentoring dialogues between eight mentoring dyads, each consisting of a student teacher of Swedish (as L1) and their school-based mentor/certified teacher of Swedish. In LCT, the concept of *semantic codes* sheds light on the transformation processes in discourse. Semantic codes build on the concepts of *semantic gravity*, which concerns the degree to which meaning is context-dependent, and *semantic density*, which concerns the degree to which meaning is complex (Maton, 2013). Knowledge transformations are conceptualized as movements between these variables along a continuum of strengths. In essence, cumulative knowledge is fostered by recurrent shifts between more concrete, context-dependent discourse (everyday language) and more abstract and generalized, specialized discourse (academic/professional language) (Maton, 2013; 2014).

The result shows that knowledge about writing and writing instruction in the 16 dialogues is mainly conveyed in context-bound and less complex language. When shifts between semantic codes do occur, mentors take "epistemic responsibility" by using more specialized language and making more generalizations, which promotes cumulative knowledge building. The findings suggest that knowledge transformation between different educational contexts can be facilitated by collaboration between university-based teacher educators and in-service mentors, not least through the identification of specialized concepts. The study concludes that LCT provides useful analytical tools to visualize and conceptualize the underlying principles of cumulative knowledge-building in mentoring dialogues in initial teacher education.

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Talking teaching and educational reform: Constellating how new teachers interpret lessons

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When schooling systems are in crisis, new teachers shouldn't merely reproduce the status quo. The challenge for teacher educators is to prepare teachers who can recognise what teachers do and why. Ideally, they should have the 'critical sensibilities' (Waitoller & Kolzeski, 2010) to see alternative, possibly more effective options. Using constellation analysis, from Legitimation Code Theory (Maton, 2014), I investigate what pedagogically-focused conversations reveal about how new teachers observe and evaluate other teachers' lessons.

Pedagogically-focused conversation – done right – can potentially improve teachers' practices (Segal, Lefstein & Vedder-Weiss, 2018). Two groups of newly qualified teachers were invited to participate in this study. Four participants had completed a full-time bachelor's degree in teaching; three had completed a teaching qualification through distance learning while assistant teachers in schools. Participants watched a lesson recording and, thereafter, discussed it in a focus group discussion.

I used constellation analysis to cluster the focus of their discussions into themes. Then, I allocated strengths of semantic density, a concept from LCT, to each constellation. Semantic density is relatively stronger when more formal, teaching-specific ideas are networked with each other. Semantic density is relatively weaker when more everyday ideas are presented as discrete, atomistic statements.

I found that one group's conversation formed a more complex, integrated network of practice; the other's formed a series of disconnected nodes, suggesting that new teachers who can draw on a shared conceptual language can better describe and discuss salient aspects of the lesson and where it could be revised or developed. Although both groups presumably had access to concepts from their teacher education, those in the school tended to be less versed in participating in pedagogically-focused discussions, possibly resulting from teachers' tendency to perform practice rather than talk analytically (Loughran, 2019). Participants who had come through a full-time contact program demonstrated access to shared conceptual language, enabling them to recruit relevant concepts to interpret and appraise the observed lesson.

The findings of my study raise a caution amidst calls for online/hybrid teacher preparation. The importance of preservice teachers developing the capacity and critical sensibilities required to analyse and appraise teaching gained through lectures and tutorial interactions in a contact programme should not be underestimated, suggesting that access to teaching- and learning-specific ideas, theories, and principles – a conceptual toolkit (Winch, 2012) – enables new teachers to imagine more effective, responsive, just teaching practices, creating conditions of possibility for transforming practice in a schooling system in crisis.

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Empowering coherence in the structuring of professional practice knowledge for mentors and mentees using Legitimation Code Theory

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The form that professional practice knowledge takes has an impact on the professional identities of both mentors and mentees (Kuhlee and Winch, 2017). When teaching is positioned predominately as a craft, outcome based observed performances tend to be prioritised. In contrast when key concepts that cohere professional knowledge are drawn upon, seemingly disparate contexts are connected through dialogues. Mentors have a key role to play in such dialogues and yet the significance their role in the structuring knowledge has been under appreciated (Mena et al, 2016). This presentation will share how Legitimation Code Theory (LCT) (Maton, 2014) was drawn upon to analyse a range of knowledge structuring interactions that took place between eight pairs of mentors and mentees in a school centered initial teacher training partnership in the West Midlands of England. In LCT, the Semantic dimension explores the context-dependence and complexities of practice through two key concepts, those of semantic gravity (context-dependence) and semantic density (complexity) (Maton, 2014). Using a semantic gravity LCT profiling tool, visualisations of the dialogues were created. After viewing these, mentors and mentees more consciously referenced concepts such as assessment, challenge, pedagogy, curriculum, and relationships for learning. Consequently these colleagues noted an increased flow between knowledge that was observable and knowledge that was professionally significant but only accessible semantically. This is because such conceptual knowledge has different time and space characteristics to that which is immediately visible (Maton, 2014). By accessing specialising and organising concepts within practice via the profiles, mentors and mentees felt that they were enabled to both draw on and contribute to professional knowledge in a more dynamic way, increasing their epistemic agency. A lack of autonomy and agency are two of the factors that have been cited in contributing towards teachers leaving the profession (Perryman and Calvert, 2019). It will be argued that, by using conceptual knowledge in practice more overtly, through visualisation mechanisms such as the LCT profiles, increased access to the distinctive knowledge that coheres our profession can be enabled. Such knowledge structuring can empower professionals and reduce the epistemic injustices (Fricker, 2007) that limit the profession when observed practices are overly prioritised. The session will share how the profiles were created and used in order that delegates can consider implications for their own mentoring and teacher education programmes.

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Video-stimulated teacher recall interviews for powerful professional learning and generation of rich collaborative research data

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Understanding the complexity of classroom teaching is important for both professional development and educational research. Classroom video, especially if it includes effective sound recording, can provide rich data that allows repeated observation and analysis. Stimulated recall interviews involve recording the teacher as they watch back a video of their lesson on a laptop and are able to pause, rewind or fast forward the video and focus in on what they consider to be significant moments or sections. The interviewer sits to one side and may use semi-structured interview prompts to influence the generation of data (Lyle, 2003). Generating rich classroom data using this method has the benefit of being a professional development activity for the teacher, so that their giving of precious time contributing to a research project is at least paid back to some extent (Lewis, 2014). The method involves the teacher in data generation but also to some extent in analysis of classroom teaching, so it contributes to the design of 'close to practice' collaborative research (Wyse et al., 2018).

In this presentation I will briefly introduce the use of video-stimulated recall method in collaborative research with teachers, including ethical, power, and knowledge issues. However, I will then focus on the related issues of using hybrid thematic analysis and presenting such a qualitative analysis transparently and convincingly within the constraints of a journal paper. It is possible, but not easy, to design, complete, and publish high quality close to practice educational research. A collaborative method of data generation such as video stimulated recall teacher interviews can contribute towards this. I will draw on lessons learned from an earlier and a later project using the method (Boyd, 2014; Boyd & Ash, 2018). Looking forward, I will speculate on how presentation of classroom teaching analysis might be strengthened by using an open access online lesson video to accompany a research paper (Ash & Boyd in progress) and by the application of Legitimation Code Theory (LCT) within the approach to analysis (Ash, in progress).

The session offers teacher educators an introduction to a method useful for professional coaching and/or rich research data generation, but within a wider critical consideration of issues and principles on completing and publishing high quality close to practice research.

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Developing a Coherent Methodology: Lessons from my doctoral thesis

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Designing a research study where there is a coherent alignment within the methodology is complex and requires careful thought and planning. Within education, there is often an unnecessary emphasis upon either positivist or constructivist viewpoints, leading to what has been referred to as “knowledge blindness” (Maton, 2014: 4). On the one hand, much of education research can be seen to take a constructivist stance where the focus is not on knowledge itself, but on the knowers and their relationship to knowledge. In contrast, positivism presents knowledge as value free, decontextualized, and absolute in nature, a sort of currency to be dealt with (ibid., 2014). Social realists argue that, instead of this either/or approach, it is better to adopt a “both/and” approach (Maton and Moore, 2009: 2). In practice, this means conducting research on the basis that there is such a thing as knowledge (knowledge exists) but that we access this in a socially bound way, knowledge is a social phenomenon (ibid., 2009). Alongside this, Bernstein (2000: 445) has identified a “discursive gap” that often exists between the underpinning theory used in research studies and actual data produced. This can lead to a disconnect between theory and empirical data analysis, prompting questions about the validity of theoretical frameworks applied. Within my doctoral research, I aimed to avoid these common flaws by designing a methodology that had coherent alignment between the theoretical framework, philosophical underpinning and actual data generated. Alongside this, my decision to conduct a case study of a single primary school teacher meant that I needed clarity over the validity and generalisability of my study with a robust methodology to support this. To do this, I developed a study from a social realist perspective, applying Legitimation Code Theory (LCT), and used critical realism as a philosophical “under-labourer” to provide an epistemological framework (Joseph, 2002: 25). This involved applying an innovative three-phased approach to data analysis, which utilised Thematic Analysis, the use of ‘data instruments’ applying deductive analysis, and the application of LCT to conduct retroductive analysis. In this session I will talk through the process of designing this methodology and reflect on the need for researchers to develop a deep understanding of the connection between the focus of research, theoretical framework, empirical data, and philosophical underpinnings.

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