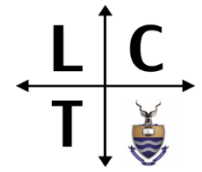# Making knowledge visible to pre-service teachers, using LCT

Every year, 620 student teachers register at the Wits School of Education for a 4-year Bachelor of Education degree. Many of them enter teacher preparation convinced that a teachers' primary role is to motivate the students they teach (Rusznyak & Walton, 2014). Until they come to see how knowledge works in their teaching, they tend to plan mere classroom busyness in their lessons (Rusznyak & Walton, 2011). To make knowledge visible, the teaching team draw on the conceptual tools offered by the 'Semantics' dimension of Legitimation Code Theory or 'LCT' (Maton, 2013; Maton, 2014).
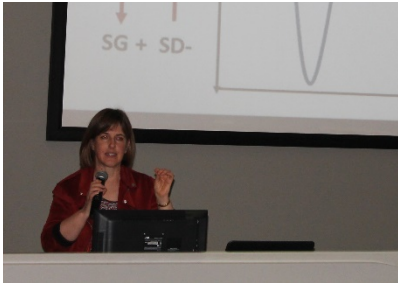
Here are some of the ways we introduce LCT to first year pre-service teachers, and use it to show them how knowledge works in teaching:

- In a tutorial, pre-service teachers recount what they learnt about teaching from watching their own teachers. The follow-up lecture shows them that although we learn some valuable ideas about teaching by watching teachers work, this understanding is often incomplete. It's more difficult to see how teachers think and how they work with knowledge. Students are shown that the semantic gravity (SG) of knowledge (its context-dependence) had been relatively stronger in the tutorial, where they had shared personal experiences. The SG had weakened during the lecture, where their experiences had been generalized and abstracted into principles about how prospective teachers start their socialization into teaching practices through watching their own school teachers at work.

- Pre-service teachers are taught how to identify shifts in the texts as the focus moves between knowledge that is less context-dependent and more complex, and that which is more context-dependent and simpler. As they go through course readings, students identify parts where concepts are introduced, elaborated and connected to other ideas. Their tutors show them how these processes strengthen the semantic density (SD) or complexity of knowledge. They also look for parts where concepts are unpacked into simpler words, more familiar ideas and examples (i.e. where SG is strengthened and SD is weakened).

- Students are taught analyse the demands of the assessment task/s they are given. They look for the semantic shifts in knowledge demanded by the questions. Before submitting, students check to see whether their draft responses follow the required semantic profile.

- Using a variety of school textbooks extracts, pre-service teachers identify main concepts and where they are unpacked into more easily understood ideas and words (a weakening of its SD). They look for parts that add complexity to concepts (where SD is strengthened). They identify movements between abstract ideas and real-world experiences (shifts in SG). They draw semantic profiles for the learning pathways set out in textbook extracts.

Concepts from the Semantics dimension of LCT helps pre-service teachers see what happens to knowledge over a range of educational texts and teaching processes. Seeing knowledge as an object of study is important before they are introduced to lesson planning. Seeing knowledge and how lessons and texts shift over time provides pre-service teachers with a way of thinking about how they could work with knowledge in the lessons they teach.

Because classroom busyness is just not enough.

Lee Rusznyak and the 'Becoming a Teacher' team, Wits School of Education, March 2020

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