

# AUTHENTIC AND EXPLICIT RESEARCH CULTURE

## Knowledge and Skill Building in Inquiry- Based Instruction

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Image: By Peter Sis

...one of the best benefits I have been offered by this culture and this society is the introduction to the intellectual life, to generalization and its relation to particular things. (Hoggart, 2005, in Maton. 2009, p. 43)

My simple message

## THE CENTRALITY OF CUMULATIVE KNOWLEDGE BUILDING IN AUTHENTIC AND EXPLICIT INQUIRY-BASED RESEARCH CULTURE

I am studying in the Web: 2: Connected Age era in what is described as an invisible pedagogic paradigm of current Western progressivist and constructive theories and approaches to curriculum. (Maton, 2009)

It is the era of the Information Age (Castells, 1996, in Maton, 2009), characterised by “knowledge societies” (Stehr, 1994, in Maton, 2009) based on “knowledge economies” that require students to actively engage in “life long learning” (Field, 2006, in Maton, 2009).



The rise of knowledge, conceptually under-theorised (Van Krieken, Smith. R, Habibis, Hutchins, Smith. B, Hutchins, Martin and Maton, 2010) and the emphasis on knowledge, is significant within the era in which I am a student.

Although knowledge is central to modern societies in light of our current pedagogic paradigm, knowledge is poorly theorised. For example, in a footnote Castells, (1996, cited in Van Krieken, et al. 2010) in his three volume work 'The Information Age', describes knowledge as " a set of organised statements of facts and ideas" (p. 188).

Crucial for me as a postgraduate student is the capacity of my Masters program to build knowledge over time, not only to promote my own understanding to inform my research but also in terms of intellectual production.



In order to understand knowledge and its role in higher education, through the lens of social realism (drawing on the works of Bernstein and Bourdieu), we can understand knowledge is the basis of education as a social field of practice (Van Krieken, et al. 2010).

From this perspective of knowledge in education as a social field of practice, and with reference to policy debates which indicates education must be for the purpose of preparing life

long learners for the ever changing demands of working in a "knowledge economy", Maton (2009) asks us to consider the importance of the structuring of knowledge practices in education, given this rhetorical emphasis on "the capacity of workers to continually build knowledge, add new skills and give new meanings to existing abilities" (p.45).

Maton (2009) believes this form of transformational cumulative learning and "the issue of how to enable cumulative learning, where new knowledge builds on and integrates past knowledge, is becoming increasingly salient" (p. 43).

Problematic, and conversely, "segmented learning - where students learn a series of ideas or skills that are strongly tied to their contexts of acquisition, problematising transfer and knowledge-building - remains a pressing concern" (p.43).

Educational debates concerning this issue, according to Maton (2009), range from both the humanities and science. Often missing from research arising from this issue, according to Maton (2009) is the "role played by the structuring of knowledge itself" (p.43).

What knowledge will I need to participate in inquiry-based research within the post-graduate academic subjects in Applied Linguistics, how is it structured, and how will I find it?



The purpose of my part of this workshop is to explain the knowledge-practices of our higher degree research culture in which knowledge and skills are progressively built through the inquiry-based research we undertake within the academic subject structures of our Masters program. Not only do we progressively learn how to undertake an inquiry through undertaking an inquiry, through the structure of our research culture identified in academic literacy events and practices such as lectures, workshops, course readings, access to online data bases and journals, books, dissertations of former students, visiting speakers from within and outside our Discipline through our Linguistics weekly research colloquium, we are progressively introduced to a theoretical knowledge base in which our inquiries are then grounded.



This building of knowledge and skills through our engagement in the practices of undertaking authentic inquiries within the subjects in our Masters program, grounded in the generalisations of our theoretical base or the epistemology of our Masters program, is for the purpose of preparing us for

undertaking our own specific Masters dissertation. The function or purpose for us doing of our inquiries within our Masters subjects is so we are making meaning of how to do an inquiry and from this, how to do a Masters dissertation.

**To put it simply, we are learning the rules of the game.**



The pedagogic premise is that our higher degree research culture provides conditions and contexts for structuring our original research inquiries undertaken within our Masters level academic subjects. The knowledge and skills we cumulatively develop, then transfer into the conceptualisation, researching and writing of our Masters dissertation which is assessed according to our mastery of our disciplinary specific knowledge and skills.

Our original inquiries, undertaken within our postgraduate academic subjects, are therefore purposefully enacted within structured conditions and contexts, and most importantly from a firm theoretical base, which views language and language and learning, including our disciplinary specific language and language and learning, as a functional meaning making system. Through this perspective we understand language, including the language of postgraduate Applied Linguistics, is a semiotic process, a process of making meaning by choosing. We understand the function of language is to make meaning (Halliday, 1978).

Our theoretical base originates from the extensive writings, since the 1960's, of social semiotic linguist Michael Halliday (pictured right).



Our directed engagement with this theoretical perspective through the knowledge-practices in our Applied Linguistics higher research culture in which we are instructed on how to undertake inquiry-based research, helps us to make meaning of the wide ranging areas of research which have emanated from and built on this theoretical base. This wide ranging research informs our own research and helps us enact our own research.

Knowledge and skills in the social practices orientation of our post-graduate research community, are viewed as the development of our semiotic resources. These semiotic resources are necessary for us to participate in our academic community, at first as higher research degree apprentices on the periphery, and over time developing into core, expert members. The evaluation of our knowledge and skills for membership is through the demonstration of our participation in the practices of our academic community (Mickan, 2012, pictured far right).



Kreber (2009, in Christie and Maton, 2011), also from the social practices perspective and viewing knowledge as central to social change, in discussing papers which explore teaching



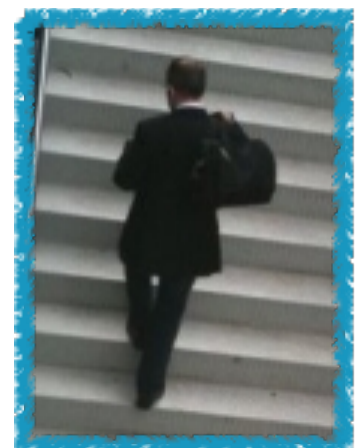
and learning practices 'within and beyond disciplinary boundaries' in the contemporary university, points out these papers highlight "the need for these practices to take account of the specificities of disciplines and the value of students becoming participants in disciplinary discourse communities so as to be better prepared to grasp the complexities of current social change" (Kreber, 2009, Christie and Maton, 2011, p.2)

In thinking about the knowledge-practices within the structure of our Masters academic subjects which help us to transform the knowledges emanating from the theoretical base by which informs and enacts our own research, the latter work of sociologist Basil Bernstein (2000, pictured right) shows us how this structure is developed. The structure is developed from the re-contextualisation practices in which the theoretical



knowledges from, for example our post graduate Applied Linguistics knowledge production field, are selected and rearranged. This knowledge is then transformed to become pedagogic discourse which is structured as texts to help us make meaning of this knowledge. This knowledge is cumulatively built on and used to inform our own inquiries, and ultimately our dissertations and Ph D's if we progress further. We therefore face inwards to our knowledge base and outwards to our field of application.

To assist is to understand curriculum as knowledge practice, Maton (2000, 2007, pictured left) in a theory of knowledge called Legitimation Code Theory (LCT) (see [www.legitimationcodetheory.com](http://www.legitimationcodetheory.com)), which



builds on and extends the work of Bernstein, provides us with theoretical tools to do this.



This approach views the practices and beliefs of actors as embodying competing claims to legitimacy, or messages as to what should be considered the dominant basis of achievement within a social field of practice. (Maton, 2009, p. 45)

LCT, which emerged as a framework for the study of knowledge and education, is being used to analyse a growing range of social and cultural practices across increasingly different institutional and national contexts, both within and beyond education. It is a social realist approach building on the theoretical base of predominately Bernstein and Bourdieu, integrated with insights from sociology, philosophy, early cultural studies, anthropology as well as from our theoretical base of Systemic Functional Linguistics. (LCT website).

Building on Bernstein's work on knowledge structures in which knowledge is organised in horizontal or hierarchical structures (Bernstein, 1999), LCT (Maton, 2000, 2007, 2009, 2010) suggests that knower structures are equally present.

In terms of cumulative knowledge building, LCT, for the purpose of this time limited presentation:

- Focuses on cumulative knowledge building and understanding over time (explores bases of building knowledge and understanding over time)

LCT provides us a lens through which we can view our academic practice in our academic fields. This is done by revealing the underlying structuring principles through analysing knowledge-producing and knowledge-transmission practices, using the LCT conceptual toolkit, evident in the ever rising research papers which are using these tools. (LCT website)

The 'languages of legitimation' provide the structuring significance for intellectual fields of knowledge claims and help us understand the differing modes of knowledge transmission. These 'languages of legitimation' are analysed in terms of their underlying structuring principles or 'legitimation codes'.

One of the legitimation codes is 'Specialisation', or what makes someone or something different, special and worthy of distinction. (Maton, 2009, p. 45). Specialisation (specialisation codes of legitimation) describes educational knowledge as consisting of epistemic relations (ER) between knowledge and the world, and social relations (SR) between knowledge and an author. (Maton, 2000, p. 154).

Specialisation codes uncover the basis of legitimate achievement, status and membership of an academic field (McNamara and Fealy, 2011). Specifically, whether claims to distinctiveness are based upon what you know and how or who you are. Specialisation aims to make visible the underlying

organising principle of knowledge practices allowing us to understand the structuring of knowledge for the development of intellectual fields, such as our Applied Linguistics Masters program.

This is important to understand because as teachers you induct us into specialised knowledge forms but you also need to ensure we are developing professionally. Therefore, because the two are tied together, specialised knowledge has an effect on our cognitive capabilities and technical skills, but it can also transform us as people (Hugo, 2011).



Image: Enkhbayar Lkhagva - Master of Arts (Applied Linguistics) University of Adelaide - 2012. Lecturer in English language and teacher trainer, Mongolia State University of Education. Ulaanbaatar

Specialisation is made visible through examining knowledge relations, which are separated into:

- epistemic relations (ER)
- social relations (SR)

These relations have boundaries which can be weakly or strongly controlled ( ER +/ER - and SR +/ SR- ), representing a continuum of strength according to the structure of the knowledge practices.

Specialisation codes reveal the underlying organising principle in knowledge practices, in terms of which relation is dominant.

Martin (2012) in her paper concerning the presentation and positioning of knowers in jazz performance student texts, uses Specialisation from LCT in collaboration with systemic functional analyses to provide a framework for the understanding of the field of jazz through analysing the discourse of the discipline. This framework highlighted the importance of social relations and knowers in the discipline of jazz and the parameters by which they are legitimised. In gaining an understanding of the social relations and legitimising parameters within a discipline, this enables the possibility of widening participation in building knowledge and skills.

### **LCT identifies four Specialisation Codes.** (Roach, 2012)

- 1) knowledge codes - the possession of specialised knowledge and its procedures are more emphasised as the measurement of achievement (ER +, SR-)
- 2) knower codes - dispositions or attributes of actors are emphasised as the basis of achievement (ER-,SR+)
- 3) elite codes - both specialised knowledge and dispositions are emphasised (ER+, SR+)
- 4) relativist codes - neither are strongly controlled (ER-, SR-).

Using these codes, and other analytical tools of LCT, the organising principles of the knowledge structure and the knowledge practices of our postgraduate Masters program, for example, can be analysed. From this analysis of the knowledge structure and practices of our postgraduate program, we can understand if the centrality of powerful, cumulative knowledge building in our authentic and explicit inquiry-based research culture exists.

We will be able to understand if cumulative learning and knowledge and skill building is taking place within the course through students participating in conducting inquiries and if students, evidenced in their Masters subject-based inquiries and Masters dissertations, are able to use new learning to build on previously acquired knowledge and skills, in new contexts such as in their dissertations, and therefore be more likely to be able to apply their studies to the workplace.

Conversely we will be able to understand, if segmented learning is taking place and students are not able to make significant links between the knowledge and skills they have acquired, and new learning in new contexts does not take place.



To find out if the inquiry-based instruction within our Masters program academic subjects enacted in our original and authentic inquiries constrains or enables cumulative learning, I hope I will be presenting my inquiry concerning this at the ERGA conference next year together with any recommendations concerning the structure of knowledge and skill building in our Masters program which come out of my inquiry.

**Discussion:**

How were you prepared for research and how do you prepare your students for high degree research?

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## **For further readings on using Specialisation qualitatively**

👉 Go to <http://www.legitimationcodetheory.com/publications.html>

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