

## Chapter 16

# Developing ‘Bridging’ Semiotic and Pedagogic Knowledge for Pre–Service Subject Area Teachers in the ‘New Mainstream’

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### **ABSTRACT**

*This chapter reports on ongoing research that has focused on supporting pre-service and practicing mainstream subject-area teachers to develop disciplinary semiotic and pedagogic knowledge. It aims to provide a principled rationale for the design and application of curriculum literacy units for secondary teachers, with a focus on fostering a more equitable engagement of the EL’s students and other linguistically and socio-economically diverse learners. The chapter presents recent developments in the understanding of semiotic knowledge in secondary content-areas and relevant pedagogic principles for its teaching and learning. Principles related to the why, the what, and the how of teaching and learning are discussed and exemplified through teaching cycles applied in the context of a curriculum literacy unit, integrating both knowledge about language and pedagogy and a range of critical perspectives that are key in contemporary reflexive pedagogies.*

## INTRODUCTION

The first two decades of the 21<sup>st</sup> century have seen large scale changes in programs of study, curricula and standards frameworks internationally, with direct impact on ‘what counts’ in the teaching and learning of students who are designated English Learners (National Center for Education Statistics, 2015). These learners are generally considered as having ‘language deficiencies’ in English, even though they may have significant experience using English in relevant social practices outside school (Perry, 2014) and are bilingual or even multilingual persons, with all the accompanying advantages. In the face of deficit assumptions, teachers are increasingly held to account for the progress of English Learners (ELs) in classroom contexts identified as ‘the new mainstream’, that is, in classroom settings characterised by the linguistic diversity of students while the language of instruction continues to be solely English (Enright, 2011). Despite international recognition of the role of language in content-area learning (Freebody, 2013), few pedagogic resources are made available for teachers of this new mainstream to identify the linguistic repertoire that students possess and are able to successfully use, and to monitor and report on their language learning needs and progress (Creagh, 2016; Macken-Horarik, Love, & Unsworth, 2011). The pedagogic resources used by teachers in this context has been conceptualised as disciplinary linguistic knowledge (Turkan, de Oliveira, Lee & Phelps, 2014), focusing particularly on knowledge about verbal language, or more broadly, disciplinary semiotic knowledge (DSK) (Humphrey, forthcoming). Following scholars in multiliteracies pedagogic framework (Cope & Kalantzis, 2015), Humphrey (forthcoming), includes both linguistic and non-linguistic systems of meaning in a classroom metalanguage, which is referred to as the *what* of multiliteracies and specialised applications of those systems in content area teaching as the *how* of multiliteracies. Disciplinary semiotic knowledge is typically developed through pre-service training and professional learning in specialised TESOL or literacy courses, but in many jurisdictions specialisations have an ‘uncertain status’ (Davison & Leung, 2009, p. 394), resulting in few opportunities for teachers to build disciplinary semiotic and pedagogic knowledge. As a consequence, the needs of ELs and the knowledge required to address those needs may become invisible to the very teachers who are responsible for their achievement in secondary schooling.

For teachers, teacher educators and scholars who are concerned to promote equitable engagement and outcomes for all students, changing landscapes such as these present significant challenges, as well as opportunities for addressing them with renewed approaches. In the secondary context, pedagogic models based on Systemic functional linguistics (SFL), and focusing on the ‘*what*’ and ‘*how*’ of DSK have informed frameworks which aim to support teachers to infuse explicit instruction of criterial semiotic features in order to shift and disrupt normative scenarios which marginalise ELs and other learners<sup>1</sup> from high stakes school learning (De Oliveira & Athenases, 2017; Gebhard & Harman, 2011; Humphrey, 2016; Rose & Martin, 2012; Schleppegrell, Achugar & Oteíza, 2004). These models have built on recent developments in SFL theory on the nature of language resources in disciplinary knowledge, and particularly in the language of secondary schooling (Doran & Martin, forthcoming; Halliday 1995/2004; Hao, 2015; forthcoming). From the perspective of teacher education, however, challenges remain in developing teachers’ knowledge and confidence to apply these frameworks and to situate, value and build on the resources diverse learners already successfully use in their literacy lives.

This paper reports on ongoing scholarship and curriculum development which focuses on preparing pre-service content-area teachers to support ELs’ literacies for ‘high stakes’ content-area learning. Drawing on SFL and complementary foundational theories, the authors report on the design and implementation of secondary units identified as ‘Curriculum Literacies’, which have been organised to address

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