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DEMYSTIFYING CRITICAL REFLECTION

Improving Pedagogy and Practice
with Legitimation Code Theory

Legitimation Code Theory



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SEEING KNOWLEDGE AND KNOWERS IN CRITICAL REFLECTION

Legitimation Code Theory

Namala Tilakaratna and Eszter Szenes

Introduction

In recent years there has been an exponential increase in the volume and sources of knowledge. This has been accompanied by a rise in the prominence given to students' capacity to think critically as required for successfully living, learning and earning in modern societies. A critical thinking skill particularly valued in higher education is 'reflection', 'self-reflection' or 'critical reflection'. To ready students for transition to the workplace, universities now list 'critical thinking' as a key graduate attribute and use 'critical reflection' as a way of teaching students how to become reflective and ethical professionals. In contrast to traditional education, which is viewed as 'objective', 'theoretical' and 'rational', critical reflection typically focuses on 'personal disclosure' (Fook & Askeland 2007: 527) and 'personal epistemologies' or ways of knowing and knowledge which arise from an individual's own experience (Brownlee et al. 2011 as cited in Ryan 2015: 9). They are linked to multiple areas of personal, professional and emotional growth leading to 'personal flourishing' (Ghaye 2007), including professionalism, collegiality, and an enhanced capacity for learning and problem-solving (Fook & Gardner 2012). Not only is critical reflection held to be crucial for the modern workplace, but it is also claimed to represent a form of 'emancipatory' practice that prepares students to question power relations within their communities of practice and wider society (see e.g. Brookfield 2000; Fook 2004; Crème 2008; Fook & Morley 2005). Yet, for many teachers and students, it is mystifying: what 'critical reflection' actually involves remains vague in research, teaching practice, and assessment. Critical reflection can seem ethereal, enigmatic, unclear. Moreover, 'critical reflection' assignments often disadvantage students who do not already know how to succeed at these kinds of tasks. This is partly because there is little consensus of

how to move forward in terms of learning, teaching and assessing critical reflection, which has varied meanings in different disciplinary and geographical contexts (see e.g. Fook & Askeland 2007; Tilakaratna et al. 2019).

This book aims to make the ‘rules of the game’ visible, teachable and learnable by drawing on the cutting-edge sociological approach of Legitimation Code Theory (LCT) (Maton 2013, 2014). The book illustrates how LCT enables systematic, evidence-based research through sociological and linguistic analyses that uncover and demystify the process of critical reflection. It also presents pedagogic interventions that make the teaching and learning of critical reflection more accessible to lecturers and students across a range of disciplines. While critical thinking and reflection are often listed as important graduate qualities in university strategic plans, they are often described in higher education research in terms of mental processes that are primarily cognitive. It thus remains unclear what it means for students to demonstrate evidence of critical reflection in their work. Showcasing a range of examples from nursing, social work, business, sports sciences, education and English for Academic Purposes, this book illustrates how LCT can help with designing more accessible, robust, effective, and visible approaches to the researching, teaching and learning of critical reflection in higher education.

This chapter begins by reviewing existing research on critical reflection and critical reflection pedagogy. It first introduces definitions of reflection and critical reflection as they are conceptualized in critical thinking research. The chapter then explores how these definitions are operationalized in the context of higher education by reviewing the most influential pedagogical approaches to teaching and assessing critical reflection. It then introduces the multidimensional conceptual toolkit of LCT (Maton 2014), focusing primarily on concepts from Specialization and Semantics, the two most relevant dimensions to this volume. The chapter also provides a brief overview of the complementary theory of Systemic Functional Linguistics (SFL), an approach often used alongside LCT to uncover the basis of success in higher education. The chapter concludes with a preview of the book’s structure and content of the chapters.

Critical reflection research and pedagogy

Critical reflection in higher education has been defined as a form of ‘critical thinking in action’ (Gulwadi 2009), a form of ‘experiential learning’ (Kolb 1984) and a ‘process for learning about and developing professional practice’ (Fook & Gardner 2007: 194). It is often seen in higher education as an opportunity for students to bring together theoretical knowledge in their disciplines with practical application, particularly across a range of applied disciplines such as social work and health sciences (Fook 2002; Fook & Askeland 2007), nursing (Epp 2008; Smith 2011), teacher education (Blaise et al. 2004; Hume 2009; Mills 2008; Otienoh 2009), early childhood education (Cornish & Cantor 2008), psychology (Sutton et al. 2007), and business and management education

(Carson & Fisher 2006; Fisher 2003; Swan & Bailey 2004). Critical reflection is also linked to the development of critical thinking ‘dispositions’, where students are asked to engage with theory in professional practice and develop a stance in relation to different and competing theories or types of knowledge they encounter in their fields of study. Dewey’s definition of critical reflection captures this as ‘the active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends’ (Dewey 1910: 6). This ‘careful consideration’ of beliefs and knowledge functions within the context of disciplinary understandings of what values are important, what theories are valorized and what kinds of actions and emotions are considered appropriate in higher education research and professional practice. This is thought to enable the ‘transformation’ of students from undergraduates to practitioners with specific disciplinary and professional values (Brookfield 2001; Mezirow 1990; Ryan 2015).

These desirable attributes of critical reflection are often assessed through a wide variety of assignments, such as learning and reflective journals, critical reflection essays and reports, case studies, or narratives (Carson & Fisher 2006; Fook & Gardner 2013; Fook et al. 2006; Ryan & Ryan 2013). In order to distinguish the process of critical reflection from the written assignments, this book will use the term ‘critical reflection’ to name the process and ‘reflective’ or ‘critical reflection assignments’ to refer to ‘written documents that students create as they think about various concepts, events, or interactions over a period of time for the purposes of gaining insights into self-awareness and learning’ (Thorpe 2004: 328 as cited in O’Connell & Dymont 2011: 47). Reflective assignments typically require students to focus on their subjective and personal experiences, values and attitudes. Without explicit teaching how to do so (Tilakaratna & Szenes 2020, Szenes & Tilakaratna 2021), however, students are left to decipher what constitutes successful reflection (O’Connell & Dymont 2011).

Widely cited definitions in the field of critical thinking research include descriptions of the critical thinking process, which typically draw on socio-cognitive and philosophical theories as well as researcher, lecturer and student perceptions (see e.g. Boud et al. 1985, Mezirow 1990, Schön 1983) rather than the study of knowledge practices. For instance, Kolb’s (1984) influential ‘experiential cycle’ and Gibbs’ (1988) ‘reflective cycle’ move through increasing degrees of complexity as students engage with a problematic incident or ‘disorienting dilemma’ (Mezirow 1990) during field placements, which are examined retrospectively. These models focussing on teaching critical reflection foreground its ‘transformative’ potential where students are expected to demonstrate a change following the act of reflecting. Indeed, the development of appropriate critical dispositions is lauded for enabling ‘perspective transformation’ (Mezirow 1990) as students are exposed to theoretical and disciplinary understandings that may challenge or extend their personal epistemologies. However, few pedagogical approaches demonstrate how to unlearn these and to replace personalized and subjective ways of knowing with more nuanced

understandings of theoretical concepts and disciplinary knowledges. In other words, *what* constitutes critical reflection and *how* it can be taught remains obscured, which indicates that much of what is understood about critical reflection in higher education remains at the level of educators' intuitions and that effective learning strategies often remain hidden from students. This disadvantages students who do not already know how to succeed at these kinds of tasks. Furthermore, successful pedagogical interventions and evidence of successful student engagement with critical reflection remain largely unexplored in research. This volume will address this gap using LCT to bring to light how successful students demonstrate critical reflection and to help design evidence-based pedagogical interventions.

Introducing Legitimation Code Theory

Legitimation Code Theory (LCT) is a sociological framework for analysing the organizing principles underlying social and knowledge practices, dispositions and contexts (Maton 2013, 2014; Maton et al. 2016, 2021). It aims to advance social justice by revealing the 'rules of the game' across a range of disciplinary and professional contexts so that they can be taught, learned or changed. It offers a multi-dimensional conceptual toolkit comprising different 'dimensions' or sets of concepts that explores different kinds of organizing principles. Here we draw on two concepts from two dimensions: Specialization and Semantics. Specialization is used to reveal how knowers and knowledge are valued in tertiary students' reflective writing across a range of disciplines; Semantics is used to show how students shift between context-dependent meanings and more theoretical content as they engage in successful reflective writing. We shall now introduce the concepts from these two dimensions used in this volume.

Specialization

Specialization begins from the premise that every social practice is about or oriented towards something and by someone (Maton 2000, 2004, 2014; Maton & Chen 2020). Focusing on knowledge practices, we can then analytically distinguish between *epistemic relations* (ER) with their proclaimed objects of study and *social relations* (SR) with whomever is enacting those practices. These relations help reveal *what* can be legitimately described as knowledge and *who* can claim to be a legitimate knower.

Epistemic relations and social relations can be mapped independently along continua of strengths. That is, knowledge claims may place more (+) or less (-) emphasis on epistemic relations and/or on social relations as the basis of legitimacy. As outlined in Maton (2014: 30–31), when brought together, the two strengths generate *specialization codes* (ER+/-, SR+/-) that are mapped on a Cartesian plane with four principal modalities (see Figure 1.1):

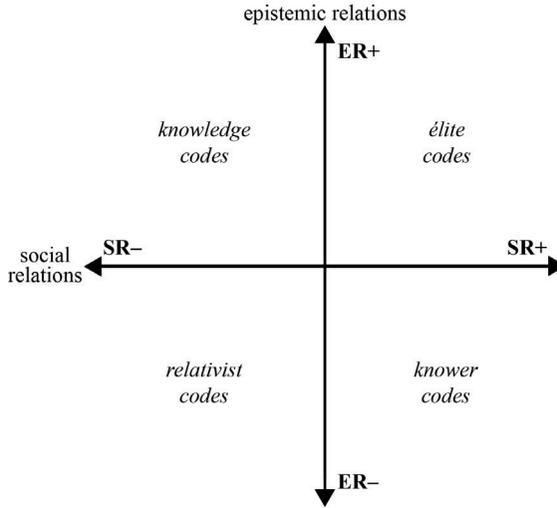


FIGURE 1.1 Specialization codes
Source: Maton (2014: 30)

- *knowledge codes* (ER+, SR–), where possession of specialized knowledge, principles or procedures concerning specific objects of study is emphasized as the basis of achievement, and the attributes of actors are downplayed;
- *knower codes* (ER–, SR+), where specialized knowledge and objects are downplayed and the attributes of actors are emphasized as measures of achievement, whether viewed as *born* (e.g. ‘natural talent’), *cultivated* (e.g. ‘taste’) or *social* (e.g. feminist standpoint theory);
- *elite codes* (ER+, SR+), where legitimacy is based on both possessing specialist knowledge and being the right kind of knower; and
- *relativist codes* (ER–, SR–), where legitimacy is determined by neither specialist knowledge nor knower attributes – ‘anything goes’.

Specialization has been used extensively in empirical research (see e.g. Maton et al. 2016; Winberg et al. 2020; Blackie et al. 2023) to explore what kinds of knowledge and knowers are valued and what counts as the basis of success in higher education across a range of disciplines such as engineering (Hindhede & Højbjerg 2022; Wolff & Hoffman 2014), sociology (Luckett 2012), jazz education (Martin, J. L. 2016; Richardson 2019), English language learning (Chen 2015), physics (Cornell & Padayachee 2021; Georgiou 2022), and health sciences (Jacobs & van Schalkwyk 2022). The contributors to this volume further demonstrate the usefulness of Specialization by showing how it has enabled them to move past existing descriptions of critical reflection as knower-oriented and reveal the role that knowledge practices play in critical reflection research, pedagogy and practice. While the models and frameworks

of critical reflection pedagogy introduced above typically focus on students as knowers and understand ‘knowledge’ in terms of the ‘mental states’, ‘mental processes’ or ‘dispositions’ of knowers (Maton 2014: 12), the chapters presented in this book highlight the knowledge practices of critical reflection evidenced in classroom discourse, written assessment and pedagogical materials. The aim is to foreground the integration of knowledge *and* knowers in critical reflection.

Semantics

The LCT dimension of Semantics explores the context-dependence and complexity of practices (Maton 2013, 2014, 2020).¹ Its key concepts are *semantic gravity* (context-dependence) and *semantic density* (complexity). *Semantic gravity* (SG) refers to the degree of context-dependence of meaning. Semantic gravity may be relatively stronger (+) or weaker (–) along a continuum of strengths. The stronger the semantic gravity (SG+), the more meaning is dependent on its context; the weaker the semantic gravity (SG–), the less meaning is dependent on its context. *Semantic density* (SD) refers to the degree of complexity of practices, whether these comprise symbols, terms, concepts, phrases, expressions, gestures, clothing, etc. Semantic density may be relatively stronger (+) or weaker (–) along a continuum of strengths. The stronger the semantic density (SD+), the more complex are the practices or, put another way, the more meanings are condensed within those practices; the weaker the semantic density (SD–), the less complex (fewer meanings are condensed).

Changes in both semantic gravity and semantic density are often explored in studies enacting these concepts to explore shifts such as moves from the concrete particulars of a case towards generalizations and abstractions, whose meanings are less dependent on their context or moving from abstractions and generalizations to the concrete specifics of a case. These movements are mapped as *semantic profiles* (Maton 2013, 2020). Figure 1.2 portrays relative strengths on the *y*-axis, and time – such as the unfolding of classroom practice, curriculum or text – on the *x*-axis. Three illustrative profiles are represented in the figure: a high *semantic flatline* (A), a low *semantic flatline* (B), and a *semantic wave* (C). The figure also shows the respective semantic ranges of these flatlines, with ‘A’ and ‘B’ having a lower semantic range than ‘C’. Semantics is thus particularly powerful as a visualization tool, which reveals the movement between increasing and decreasing context-dependence and complexity across a text.

Semantics has been widely used in education research to explore the basis of achievement (see e.g. Maton 2013, 2020; Maton et al. 2016), create effective pedagogical interventions with a focus on cumulative knowledge-building (Clarence 2014) and developing scholarly inquiry and academic literacy (Brooke 2017, 2020; Clarence 2014, Kirk 2017; Monbec 2020). In critical reflection research, Semantics has been used to map the semantic profiles of

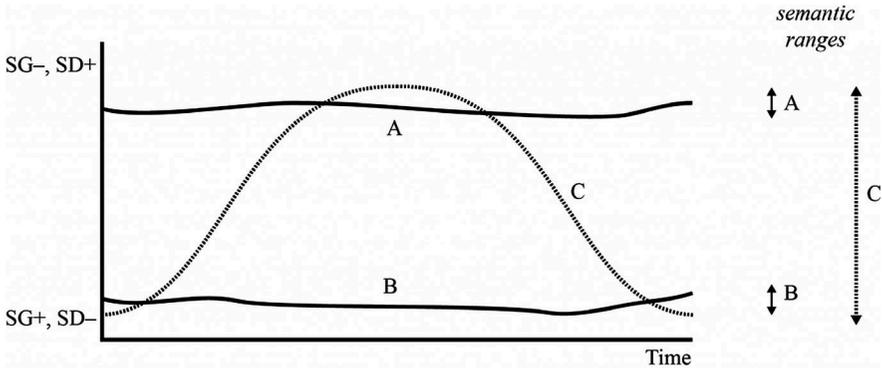


FIGURE 1.2 Three semantic profiles

Source: (Maton 2013: 13)

student assignments in a range of disciplines such as social work and business (Szenes et al. 2015), nursing (Brooke 2019), English for Academic Purposes (Ingold & O’Sullivan 2017; Kirk 2017) and teacher education (Macnaught 2020; Meidell Sigsgaard 2020; Meidell Sigsgaard & Jacobsen 2020, 2021). It has also been used to develop effective critical reflection pedagogical interventions such as creating analytical rubrics in nursing (Monbec et al. 2020, Tilakaratna et al. 2020). In this volume, chapters draw on the concept of *semantic gravity* in order to reveal how successful students engage with context-dependence in their reflective writing assignments and use these findings to create effective pedagogical interventions for demystifying critical reflection assignments.

A number of chapters in this volume also explore the concept of *semantic density* through analysing ‘cosmologies’ and ‘constellations’ in order to explore how axiological meanings (e.g. affective, aesthetic, ethical political and moral stances) are condensed in texts.

Cosmologies

Cosmologies are specific worldviews, logics or belief systems (Maton 2013: 152), underlying the social practices of actors. The organizing principles underlying a cosmology can be analysed using all the concepts of LCT, generating many different kinds of cosmology. Two kinds we shall highlight here are: *epistemological cosmologies* and *axiological cosmologies*. Put very simply, epistemological cosmologies emphasize epistemic relations and typically comprise explicit, visible structures of knowledge while axiological cosmologies emphasize social relations and typically ‘show whether your heart is in the right place, your aesthetic, ethical, moral or political affiliations correct, and so whether you are one of us or one of them’ (Maton 2014: 163).

For this volume, in order to understand what cosmologies students are aligning with in reflective assignments, analysing axiological cosmologies is particularly revealing when ‘unpack[ing] the ideological assumptions embedded in a notion like [critical thinking] and relat[ing] them to a set of social and political discourses’ (Lim 2014: 33). Cosmologies can be revealed through constellation and cluster analyses. ‘Constellations’ are larger patterns of meaning that consist of ‘clusters’ or recognisable and recurrent configurations of meaning that have a positive or negative charging (Maton 2013; Maton et al. 2016; Tilakaratna & Szenes 2020). Constellation analysis has been used to explore how powerful stances are developed in education research (Maton 2014), literary response writing (Jackson 2020), white supremacist environmentalism (Szenes 2021), and the humanities (Doran 2020). Constellation analysis has also been used in higher education research to explore how critical reflection assignments require students to recognize and reproduce powerful cultural and disciplinary values in fields such as social work and business (Tilakaratna & Szenes 2020). A number of chapters in this volume draw on the concept of axiological constellations to explore how reflective writing assignments often require students to align with and demonstrate their capacity to enact particular stances and dispositions linked to disciplinary and professional values.

Alongside the LCT dimensions and concepts introduced above, several chapters of this volume also draw on the theoretical framework of Systemic Functional Linguistics (SFL). SFL is an approach that has often been productively brought together with LCT in interdisciplinary studies across the disciplinary map to offer complementary insights into their objects of study (e.g. Martin, J. R. et al. 2020; Maton et al. 2016).

Introducing Systemic Functional Linguistics

SFL is a theory of language that treats language as a social semiotic, ‘a meaning-making resource’ (Halliday 1978, 1979, 1985; Martin, J. R. 1992; Halliday & Matthiessen 1999, 2004). From SFL, chapters in this volume draw on the concept of genre (Martin, J. R. 1992; Christie & Martin, J. R. 1997; Martin, J. R. & Rose 2008) and the framework of Appraisal (Martin, J. R. & White 2005). Genres are ‘social practices of a given culture’ (Martin, J. R. & Rose 2008: 6) defined as ‘staged, goal-oriented processes’ (Rose & Martin, J. R. 2012: 54). This means that texts unfold through a number of key steps or stages from the beginning to the end: they are ‘goal-oriented’ because texts are enacted to achieve particular goals and ‘social’ because genres are a means by which we engage with others in society (Dreyfus et al. 2016). Chapters that draw on the SFL concept of genre in this volume explore the social purposes, functions, structure, and staging of critical reflection assignments from a wide range of academic disciplines. They also aim to identify how linguistic features of different genre stages are expressed as knowledge practices.

While analyses of genre examine a text as a whole, Appraisal, also called ‘the language of evaluation’ (Martin, J. R. & White 2005), is used to analyse instances of evaluative meanings, e.g. attitudes, emotions and opinions, values and judgements that create particular value positions in texts and to align the reader with the authors’ propositions (e.g. Hood 2006, 2010; Dreyfus et al. 2016; Martin, J. R. & White 2005). Attitude analyses also reveal the *targets* of the evaluation (the evaluated item) and whether evaluations are negatively or positively charged (Martin, J. R. & White 2005). The Appraisal framework is particularly useful for examining critical reflection assignments because these often require students to deal with issues that are seen as subjective and ‘highly emotional’ (Crème 2008; Szenes & Tilakaratna 2021). Appraisal analyses make visible how successful students deploy attitudinal resources effectively to construct particular value positions as evidence of critical reflection. Several chapters in this volume draw on Appraisal to analyse axiological constellations and uncover the dispositions and values embedded in critical reflection texts in a range of academic contexts such as nursing, business studies, teacher education, English for Academic Purposes (EAP) and in Content and Language Integrated Learning modules.

A growing number of studies are using SFL alongside LCT to analyse the same dataset from complementary perspectives (see e.g. Maton 2014; Maton et al. 2016; Martin, J. R. et al. 2020; Winberg et al. 2020). An interdisciplinary LCT-SFL approach has also been used in critical reflection research and pedagogy to explore the knowledge practices of critical reflection in social work and business (Szenes & Tilakaratna 2020; Szenes et al. 2015) and to create effective interventions, pedagogical materials and analytical rubrics in the discipline of nursing (Monbec et al. 2020; Tilakaratna et al. 2020), English for Academic Purposes (Brooke et al. 2019) and in teacher education (Macnaught 2020). In this volume, scholars using analytical tools from both LCT and SFL in an integrated approach explore how critical reflection can be demystified for students in order to design effective pedagogical interventions.

Demystifying critical reflection

This volume of cutting-edge research reveals the knowledge practices and language of critical reflection in a range of different kinds of subjects, making clear how they can be taught and learned. Studies draw on the fast-growing sociological framework of LCT for revealing the knowledge practices that enable educational success. The individual chapters focus on a diverse range of contexts across the disciplinary map, including higher and teacher education, English for Academic Purposes (EAP), social work, science, arts, sociology, sport and exercise sciences, business and nursing. This volume relates research and practice by presenting in-depth analyses of critical reflection and providing practical insights into how LCT can be used to design pedagogic interventions. The book is structured into three main parts that focus on: researching

critical reflection; designing pedagogic interventions; and supporting students to learn how to think critically.

Part I focuses on how critical reflection can be demystified by using LCT to reveal the knowledge practices valued in reflective writing in the context of higher education. In chapter 2, Namala Tilakaratna shows how successful nursing students create positive and negative clusters of meaning in their texts in order to demonstrate their capacity to align with a highly valued constellation of professional nursing competency in clinical practice in Singapore. The chapter demonstrates the positive impact of an LCT-informed pedagogy that allows literacy experts to uncover disciplinary values and collaborate with subject experts to create a theoretically informed and effective pedagogy. In chapter 3, Eszter Szenes and Namala Tilakaratna engage with and question the ethical dimensions of reflective writing assessment in the context of an Australian higher education institution. By drawing on axiological clusters and constellations, the chapter illustrates how both high- and low-scoring business reflective assignments construct alignment with western values and reject Asian values, resulting in deficit discourses by stereotyping and othering, engaging in negative self-talk and focusing on failure. In chapter 4, Sharon Aris draws on Specialization to reveal how social work knowledge is recontextualized in Australian social work textbooks, which require students to engage with complex notions of power and control. The chapter reveals that critical reflection in social work is an *élite code* as it requires knowledge of specific theories and processes (stronger epistemic relations) and the development of certain dispositions and values (stronger social relations).

Part II focuses on teaching and learning interventions, including innovative ways that critical reflection can be taught to students across a range of disciplinary and geographical contexts from Europe and Canada to New Zealand. In chapter 5, Steve Kirk draws on semantic gravity to describe successful pedagogic interventions designed to elucidate the ‘rules of the game’ in critical reflective writing, an unfamiliar task for undergraduate sport and exercise sciences students. The chapter demonstrates the importance of moving between three ‘levels’ of meaning-making: concrete experience, generalizations and theory by plotting high- and low-scoring student assignments on a diagram to offer students a more integrated understanding of reflective practice. In chapter 6, Jodie Martin reflects on a pedagogic intervention utilizing reflective writing to consolidate and improve first-year international Science students’ performance of complex multimodal academic presentations. Specialization is used to tease apart, in both pedagogy and student responses, emphases on content and skills associated with presentations (epistemic relations), and emphases on confidence and interaction (social relations) related to performance. In chapter 7, Daniel O’Sullivan reports on a successful collaboration between a subject specialist and an English and academic language specialist and the recontextualization of concepts from LCT in two successive Education units of a university pathways course. He draws on the concept of semantic gravity to explore the context-dependence of practices

and make visible the connections between theory and experience to inform the design of pedagogic materials, which make reflective writing teachable and learnable. In chapter 8, Lucy Macnaught draws on semantic gravity to reveal the requirements of a reflective assessment ‘blog critique’ assignment within a Bachelor of Education degree, where students are expected to reflect on and critique education practices. She challenges the idea that reflection writing assignments are creative and lack structure. In chapter 9, Nóra Wünsch-Nagy reports on a semester-long scaffolded learning pathway built around museum visits to teach reflective writing in a course on multimodal literacy development. Drawing on the concept of semantic waves, the chapter reports on a genre-based approach to scaffold pre-service teacher trainees’ reflective practice in writing and in classroom discussions in teacher education.

Part III focuses on cultivating students’ engagement with powerful disciplinary practices and discourses within their academic disciplines in order to facilitate their capacity to become critically reflective. In chapter 10, Jodie Martin and Jennifer Walsh Marr illustrate how they incorporate reiterative reflective writing as both method and object of instruction in an Academic English class for international students within a Canadian Arts program. Drawing on Specialization and axiological constellations, the chapter provides insight into how constellations of values are framed and reframed within reflective writing, and how they shape and are shaped by cultural context and pedagogy towards a more holistic appreciation of reflective practices. In chapter 11, Mark Brooke reports on a pedagogical intervention aimed at developing students’ capacity for critical reflection through evidence-based academic writing in a sociology of sport course. Enacting semantic gravity, the chapter describes classroom activities designed to demonstrate how theory can be applied to different empirical contexts and raise students’ awareness about how to effectively write a theoretical framework in a model academic text. In chapter 12, Laetitia Monbec analyses undergraduate students’ reflective summaries to understand their critical engagement with the literature in a colour semiotics module in Singapore. The chapter draws on axiological constellations to reveal how successful students critically engage with expert knowledge and expert knowers when developing a critically reflective stance towards an author’s perspective in a journal article.

As critical thinking and critical reflection are emphasized in higher education curricula internationally, this book has significant potential for use in any higher education degree program across the globe. This book presents theoretically-informed, cutting-edge research and pedagogical approaches, which offer a substantial contribution to tertiary higher education programs. Specifically, it illustrates how LCT can contribute to evidence-based pedagogy and equip educators with tools that make visible the diverse ways in which critical reflection is valued in different academic disciplines. This facilitates the design of visible pedagogies that enable students to develop their stance as legitimate

knowers within their fields of practice as a result of successful critical reflection. This volume illustrates the potential for LCT to work across interdisciplinary boundaries and enable critical reflection to be demystified and pedagogically scaffolded: it offers a rich resource for both scholars and teachers who want to prepare university students for the modern workplace and thereby contribute to social justice in higher education.

Note

- 1 Not to be confused with the notion of ‘discourse semantics’ from Systemic Functional Linguistics.

References

- Blackie, Margaret A.L., Hanelie Adendorff, & Mernal Mouton (eds.). 2023. *Enhancing science education: Exploring knowledge practices with Legitimation Code Theory*. London: Routledge.
- Blaise, Mindy, Shelley Dole, Gloria Latham, Karen Malone, Julie Faulkner & Josephine Lang. 2004. Rethinking reflective journals in teacher education. Paper presented at the Australian Association of Researchers in Education (AARE). Melbourne, Victoria.
- Boud, David, Rosemary Keogh & David Walker (eds.). 1985. *Reflection: Turning experience into learning*. London & New York: Routledge Falmer.
- Brooke, Mark. 2017. Using ‘semantic waves’ to guide students through the research process: From adopting a stance to sound cohesive academic writing. *Asian Journal of the Scholarship of Teaching and Learning* 7(1). 37–66.
- Brooke, Mark. 2019. Using semantic gravity profiling to develop critical reflection. *Reflective Practice* 20(6). 808–821. doi:10.1080/14623943.2019.1682986.
- Brooke, Mark. 2020. Applying semantic gravity wave profiles to develop undergraduate students’ academic literacy. *Australian Review of Applied Linguistics* 43(3). 228–246. doi:10.1075/ara1.19012.bro.
- Brooke, Mark, Laetitia Monbec & Namala Tilakaratna. 2019. The analytical lens: Developing undergraduate students’ critical dispositions in undergraduate EAP writing courses. *Teaching in Higher Education* 24(3). 428–443.
- Brookfield, Stephen. 2000. Transformative learning as ideology critique. In Jack Mezirow & Associates (eds.), *Learning as Transformation*, 125–149. San Francisco: Jossey-Bass.
- Brookfield, Stephen. 2001. Unmasking power: Foucault and adult learning. *Canadian Journal for the Study of Adult Education* 15(1). 1–23.
- Carson, Lyn & Kath Fisher. 2006. Raising the bar on criticality: Students’ critical reflection in an internship program. *Journal of Management Education* 30(5). 700–723.
- Chen, Rainbow Tsai-Hung. 2015. L2 blogging: Who thrives and who does not? *Language Learning & Technology* 19(2). 177–196.
- Christie, Frances & James R. Martin (eds.). 1997. *Genre and institutions: Social processes in the workplace and school*. London: Cassell.
- Clarence, Sherran. 2014. Surfing the waves of learning? Exploring the possibility of enabling greater cumulative knowledge-building through pedagogy using Semantics. *Higher Education Close-Up* 7. Lancaster, July.

- Cornell, Alan & Kershree Padayachee. 2021. Revealing shifts from mastery of knowledge to problem solving in assessments of a tertiary physics programme. *Journal of Education: Special issue on knowledge-building and knowers in educational practices* 83. 111–126.
- Cornish, Mary M., & Patricia A. Cantor. 2008. ‘Thinking about thinking: It’s not just for philosophers’: Using metacognitive journals to teach and learn about constructivism. *Journal of Early Childhood Teacher Education* 29. 326–339.
- Crème, Phyllis. 2008. A space for academic play: Student learning journals as transitional writing. *Arts and Humanities in Higher Education* 7(1). 49–64.
- Dewey, John. 1910. *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: DC Heath and Company.
- Doorsamy, Welsey & Pitshou Bokoro. 2019. On the use of semantics for curriculum development of new engineering technology programme. *IEEE AFRICON*.
- Doran, Yaegan, J. 2020. Seeing values: Axiology and implicit evaluation in Australia’s ‘invasion’. In James R. Martin, Karl Maton & Yaegan J. Doran (eds.), *Accessing academic discourse: Systemic Functional Linguistics and Legitimation Code Theory*, 151–176. London: Routledge.
- Dreyfus, Shoshana J., Sally Humphrey, Ahmar Mahboob & James R. Martin. 2016. *Genre pedagogy in higher education: The SLATE Project*. Houndmills, United Kingdom: Palgrave Macmillan UK.
- Epp, Sheila. 2008. The value of reflective journaling in undergraduate nursing education: A literature review. *International Journal of Nursing Studies* 45. 1379–1388. doi:10.1016/j.ijnurstu.2008.01.006.
- Fisher, Kath. 2003. Demystifying critical reflection: Defining criteria for assessment. *Higher Education Research & Development* 22(3). 313–325. <https://doi.org/10.1080/0729436032000145167>.
- Fook, Jan. 2002. *Critical deconstruction and reconstruction*. London: Sage.
- Fook, Jan. 2004. Critical reflection and transformative possibilities. In Linda Davies & Peter Leonard (eds.), *Social work in a corporate era: Practices of power and resistance*, 16–30. Farnham: Ashgate Avebury.
- Fook, Jan & Gurig Aga Askeland. 2007. Challenges of critical reflection: ‘Nothing ventured, nothing gained’. *Social Work Education* 26(5). 520–533.
- Fook, Jan, Val Collington, Fiona Ross, Gillian Ruch & Linden West. 2016. *Researching critical reflection: Multidisciplinary perspectives*. London: Routledge.
- Fook, Jan & Fiona Gardner. 2012. *Critical reflection in context: Applications in health and social care*. Oxford: Routledge.
- Fook, Jan & Christine Morley. 2005. Empowerment: A contextual perspective. In Steven Hick, Jan Fook & Richard Pozzuto (eds.), *Social work: A critical turn*, 67–86. Toronto: Thompson Education Publishing.
- Fook, Jan, Sue White & Fiona Gardner. 2006. Critical reflection: A review of contemporary literature and understandings. In Sue White, Jan Fook & Fiona Gardner (eds.), *Critical reflection in health and social care*, 3–20. Berkshire, England: Open University Press, McGraw Hill Education.
- Georgiou, Helen. 2022. Preservice teachers’ views of the ‘social embeddedness’ tenet of the nature of science: A new method of analysis. *Journal of Science Teacher Education*. 1–19.
- Ghaye, Tony. 2007. Is reflective practice ethical? (The case of the reflective portfolio). *Reflective Practice* 8(2). 151–162.
- Gibbs, Graham. 1988. *Learning by doing: A guide to teaching and learning methods*. Oxford: Further Education Unit. Oxford Polytechnic.

- Gulwadi, Gowri Betrabet. 2009. Using reflective journals in a sustainable design studio. *International Journal of Sustainability in Higher Education* 10(1). 43–53.
- Halliday, Michael A. K. 1978. *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, Michael A. K. 1979. Modes of meaning and modes of expression: Types of grammatical structure, and their determination by different semantic functions. In D. J. Allerton, Edward Carney & David Holdcroft (eds.), *Function and Context in Linguistic Analysis*, 57–79. Cambridge: Cambridge University Press.
- Halliday, Michael A. K. 1985. *An introduction to functional grammar*. London: Edward Arnold.
- Halliday, Michael A. K. & Christian M. I. M. Matthiessen. 1999. *Construing experience through meaning: A language-based approach to cognition*. London/ New York: Cassell.
- Halliday, Michael A. K. & Christian M. I. M. Matthiessen. 2004. *An introduction to functional grammar*. London: Arnold.
- Hindhede, Anette Lykke & Karin Højbjerg. 2022. Disciplinary knowledge, pedagogy, and assessment in non-university marine engineering education – Consequences for student academic success. *Teaching in Higher Education*. doi:10.1080/13562517.2022.2067746.
- Hood, Sue. 2006. The persuasive power of prosodies: Radiating values in academic writing. *Journal of English for Academic Purposes* 5(1). 37–49.
- Hood, Susan. 2010. *Appraising research: Evaluation in academic writing*. London: Palgrave Macmillan.
- Hume, Anne. 2009. Promoting higher levels of reflective writing in student journals. *Higher Education Research & Development* 28(3). 247–260.
- Ingold, Richard & Daniel O’Sullivan. 2017. Riding the waves to academic success. *Modern English Teacher* 26(2). 39–43.
- Jackson, Glenn. 2020. Axiological constellations in literary response writing: Critical SFL praxis in an ELA classroom. *Language and Education* 35(5). 446–462.
- Jacobs, Cecilia, & Susan van Schalkwyk. 2022. What knowledge matters in health professions education? *Teaching in Higher Education*. 1–16.
- Kirk, Steve. 2017. Waves of reflection: Seeing Knowledge(s) in academic writing. In Jenny Kemp (ed.), *EAP in a rapidly changing landscape: Issues, challenges and solutions. Proceedings of the 2015 BALEAP Conference*. Reading: Garnet.
- Kolb, David. A. 1984. *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Lim, Lionel. 2014. Critical thinking and the anti-liberal state: The politics of pedagogic recontextualization in Singapore. *Discourse: Studies in the Cultural Politics of Education* 35(5). 692–704.
- Luckett, Kathy. 2012. Disciplinarity in question: Comparing knowledge and knower codes in sociology. *Research Papers in Education* 27(1). 19–40.
- Macnaught, Lucy. 2020. Demystifying reflective writing in teacher education with semantic gravity. In Christine Winberg, Sioux McKenna, & Kristin Wilmot (eds.), *Building knowledge in higher education: New directions in teaching and learning*, 19–36. New York: Routledge.
- Martin, James R. 1992. *English text: System and structure*. Amsterdam: John Benjamins.
- Martin, James R. & David Rose. 2008. *Genre relations*. London: Equinox.
- Martin, James R., & Peter R. R. White. 2005. *The language of evaluation: Appraisal in English*. New York: Palgrave Macmillan.

- Martin, James R., Karl Maton & Yaegan J. Doran (eds.). 2020. *Accessing academic discourse: Systemic Functional Linguistics and Legitimation Code Theory*. London: Routledge.
- Martin, Jodie L. 2016. Musicality and musicianship: Specialization in jazz studies. In Karl Maton, Sue Hood & Suellen Shay (eds.), *Knowledge-building: Educational studies in Legitimation Code Theory*, 193–213. London: Routledge.
- Maton, Karl. 2000. Languages of legitimation: The structuring significance for intellectual fields of strategic knowledge claim. *British Journal of Sociology of Education* 21(2). 147–167.
- Maton, Karl. 2004. The wrong kind of knower: Education, expansion and the epistemic device. In Brian Davies, Ana Morais & Johan Muller (eds.), *Reading Bernstein, researching Bernstein*, 218–231. London: Routledge.
- Maton, Karl. 2013. Making semantic waves: A key to cumulative knowledge-building. *Linguistics and Education* 24(1). 8–22.
- Maton, Karl. 2014. *Knowledge and knower: Toward a realist sociology of education*. London: Routledge.
- Maton, Karl. 2020. Semantic waves: Context, complexity and academic discourse. In James R. Martin, Karl Maton & Yaegan J. Doran (eds.), *Accessing academic discourse: Systemic Functional Linguistics and Legitimation Code Theory*, 59–85. London: Routledge.
- Maton, Karl, Sue Hood & Suellen Shay (eds.). 2016. *Knowledge-building: Educational studies in Legitimation Code Theory*. London: Routledge.
- Maton, Karl & Rainbow Tsai-Hung Chen. 2020. Specialization codes: Knowledge, knowers and student success. In James R. Martin, Karl Maton & Yaegan J. Doran (eds.), *Accessing academic discourse: Systemic Functional Linguistics and Legitimation Code Theory*, 35–58. London: Routledge.
- Maton, K., James R. Martin, & Yaegan J. Doran (eds.). 2021. *Teaching science: Knowledge, language, pedagogy*. London: Routledge.
- Meidell Sigsgaard, Anna-Vera. 2020. Making waves in teacher education: Scaffolding students' disciplinary understandings by 'doing' analysis. In Christine Winberg, Sioux McKenna and Kirstin Wilmot (eds.), *Building knowledge in higher education: Enhancing teaching and learning with Legitimation Code Theory*, 37–54. London: Routledge.
- Meidell Sigsgaard, Anna-Vera & Susanne Jacobsen. 2020. At bølge i en akademisk analyse. *Globe: A Journal of Language, Culture and Communication* 10: 82–101.
- Meidell Sigsgaard, Anna-Vera & Susanne Jacobsen. 2021. Scaffolding the wave – Preparing teacher students to write their final exam through LCT and SFL. In Maria Brisk & Mary Schleppegrell (eds.), *Language in action: SFL theory across contexts*. 37–54. Sheffield: Equinox.
- Mezirow, Jack. 1990. *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass.
- Mills, Roxanne. 2008. 'It's just a nuisance': Improving college student reflective journal writing. *College Student Journal* 42(2). 684–690.
- Monbec, Laetitia. 2020. Scaffolding content in an online Content and Language Integrated Learning (CLIL) Module. *International Journal of TESOL Studies* 2(2). 157–173.
- Monbec, Laetitia, Tilakaratna, Namala, Brooke, Mark, Lau, S. T., Chan, Y. S. & Wu, V. (2020) Designing a rubric for reflection in nursing: A Legitimation Code Theory and Systemic Functional Linguistics-informed framework. *Assessment & Evaluation In Higher Education*. doi:10.1080/02602938.2020.1855414.

- Moore, Rob & Maton, K. 2001. Founding the sociology of knowledge: Basil Bernstein, intellectual fields and the epistemic device. In Ana Morais, Isabel Neves, Brian Davies & Harry Daniels (eds.), *Towards a sociology of pedagogy: The contribution of Basil Bernstein to research*, 153–182. New York: Peter Lang.
- O’Connell, Timothy. S. & Jane E. Dymont. 2011. The case of reflective journals: Is the jury still out? *Reflective Practice: International and Multidisciplinary Perspectives* 12(1). 47–59.
- Otienoh, Ruth Ombonya. 2009. Reflective practice: The challenge of journal writing. *Reflective Practice* 10(4). 477–489.
- Richardson, Saul Alexander. 2019. *Teaching jazz: A study of beliefs and pedagogy using Legitimation Code Theory*. Sydney: University of Sydney. (PhD dissertation.)
- Rose, David & James R. Martin. 2012. *Learning to write, reading to learn*. London: Equinox.
- Ryan, Mary E. (ed.). 2015. *Teaching reflective learning in higher education: A systematic approach using pedagogic patterns*. Switzerland: Springer International.
- Ryan, Mary & Michael Ryan. 2013. Theorising a model for teaching and assessing reflective learning in higher education, *Higher Education Research & Development* 32(2). 244–257.
- Schön, Donald. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic books.
- Smith, Elizabeth. 2011. Teaching critical reflection. *Teaching in Higher Education* 16(2). 211–223.
- Sutton, Liz, Michael Townend & Jeannie Wright. 2007. The experiences of reflective learning journals by cognitive behavioural psychotherapy students. *Reflective Practice* 8(3). 387–404.
- Swan, Elaine & Andy Bailey. (2004). Thinking with feeling: The emotions of reflection. In Michael Reynolds & Russ Vince (eds.), *Organizing reflection*, 105–125. Hampshire, UK: Ashgate Publishing Limited.
- Szenes, Eszter. 2021. Neo-Nazi environmentalism: The linguistic construction of ecofascism in a Nordic Resistance Movement manifesto. *Journal for Deradicalization* 27. 146–192.
- Szenes, Eszter, Namala Tilakaratna & Karl Maton. 2015. The knowledge practices of critical thinking. In Martin Davies & Ronald Barnett (eds.), *The Palgrave handbook of critical thinking in higher education*, 573–591. New York: Palgrave Macmillan.
- Szenes, Eszter & Namala Tilakaratna. 2021. Deconstructing critical reflection in social work and business: Negotiating emotions and opinions in reflective writing. *Journal of English for Academic Purposes* 49. 1–15. doi:10.1016/j.jeap.2020.100931.
- Tilakaratna, Namala, Mark Brooke & Laetitia Monbec. 2019. Reflecting writing across the disciplines: Challenging Western critical thinking models in the Asian context. *Asian Journal of the Scholarship of Teaching and Learning* 9(2). 119–141.
- Tilakaratna, Namala, Mark Brooke, Laetitia Monbec, Lydia Lau, Vivien Wu & Yah Shih Chan. 2020. Insights into an interdisciplinary project on critical reflection in nursing: Using Systemic Functional Linguistic and Legitimation Code Theory to enhance SoTL research and practice. In Rachel C. Plews & Michelle L. Amos (eds.), *Evidence-based faculty development through the scholarship of teaching and learning (SoTL)*, 303–327. Hershey, Pennsylvania: IGI Global.
- Tilakaratna, Namala & Eszter Szenes. 2020. (Un)critical reflection: Uncovering disciplinary values in social work and business reflective writing assignments. In Christine Winberg, Sioux McKenna & Kirstin Wilmot (eds.), *Building knowledge*

- in higher education: Enhancing teaching and learning with Legitimation Code Theory*, 105–125. London: Routledge.
- Winberg, Christine, Sioux McKenna, & Kristin Wilmot (eds.). 2020. *Building knowledge in higher education: Enhancing teaching and learning with Legitimation Code Theory*. London: Routledge.
- Wolff, Karen & Françoise Hoffman. 2014. Knowledge and knowers in engineering assessment. *Critical Studies in Teaching and Learning* 2(1). 74–95.