Cracking the Code of Scholarship: The Knowledge Structures of Journal Articles in Scholarship of Teaching and Learning From the Perspective of Legitimation Code Theory

Kum Khuan Tang

April 2024

This thesis is submitted in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

Department of Educational Research

Lancaster University

UK

Abstract

Scholarship of Teaching and Learning (SoTL) is an interdisciplinary field in higher education that helps improve how we teach and learn at universities. However, many new researchers find it hard to understand how to write and publish in this field.

In my thesis, I explore the hidden rules of the game in writing and publishing SoTL by analysing 93 journal articles published in international SoTL journals. Using concepts from Legitimation Code Theory (LCT), I analysed the articles to find out what objects and relations of knowledge were emphasised in these articles, and how research outcomes were judged to determine their value to the field.

My study found that: 1) successful publication was mainly based on what authors know rather than who they are; 2) the objects of study were clear, but the overall structure of the field was not; 3) authors often failed to sufficiently bring theoretical resources together; 4) qualitative approaches, questionnaires and surveys were most often used to study the research objects; 5) authors often failed to sufficiently evaluate their work critically; and 6) much SoTL work did not add consequentially to the field.

These findings offer important insights into what counts as scholarship in SoTL journals. The key implications are: 1) faculty developers should understand the objects and relations of knowledge valued in journal publication to better help new authors; 2) new authors need to increase the accessibility of their work to ensure usefulness across countries and higher education systems, and explore new ways to evaluate teaching and learning beyond just surveys and interviews; and 3) new editors and reviewers may need to understand the interplay between how theory is used and how contributions are made in SoTL journals to better appreciate where and how the field needs to strengthen if it is to achieve its goals of enhancing teaching and learning.

Table of Contents

List of Figures and Tables

Tables

Figures

Acknowledgements

I am indebted to my supervisor, Professor Paul Ashwin, for his expertise, patient guidance, and invaluable feedback. Expertise matters, and Paul's made a difference. Thank you, Paul, for showing me the ropes of educational development founded upon the peculiarity of higher education, thanks for having my back, and thanks for being my cheerleader, always seeing the value in my work even when I sometimes struggled to see it myself (thanks to the PhD imposter syndrome).

I would also like to acknowledge the critical and constructive feedback of the examiners, Professors Malcom Tight and Sioux McKenna, during the oral examination of this thesis.

Author's declaration: This thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere.

I confirm that the word count of this thesis does not exceed the prescribed word limit.

Signature *Tang Kum Khuan*

Chapter 1: Introduction

Scholarship of Teaching and Learning (SoTL) represents an established framework of higher education research (Tight, 2019), and has received increased interest from institutions seeking strategies to develop educational practices (Geertsema, 2016; Kenny et al., 2017). At the same time however, the legitimacy of SoTL as a field of enquiry has been challenged as some of its harshest critics have labelled it an unwelcome 'hard sell' and 'the thorn in the flesh of educational research' (Boshier, 2009; Canning & Masika, 2020). The criticisms that have been levelled against SoTL are not merely intellectual debates about the nature of SoTL as a field or body of knowledge, but have given rise to very real effects in the form of reported desk rejections faced by journal article authors and liminal identities felt by new scholars (Bennett et al., 2016; Healey, Matthews, & Cook-Sather, 2019; Simmons et al., 2013). Journal publications therefore represent a key site where contestations of SoTL's legitimacy play out and are negotiated. Knowledge of what counts as scholarship in SoTL journal articles is essential for new scholars aspiring to 'write' their way into the field, and for faculty developers who are tasked with the responsibility of showing the way. However, the 'rules of the game' of journal publication are often unspoken and constitute a form of tacit knowledge that is hard to access without the appropriate conceptual and methodological tools.

This thesis is about accessing the tacit knowledge that is essential to the discursive enculturation of new scholars into the field of SoTL. More specifically, it studies the underlying knowledge structures of internationally published journal articles in the field.

This introductory chapter presents an overview of a study of the underlying structuring principles of published peer-reviewed journal articles in the field of Scholarship of Teaching and Learning (SoTL). It outlines the research problem which the study proposes to investigate and provides the necessary background information to situate this study in the context of educational development in Higher Education. Subsequent chapters will be devoted to a

9

more detailed description of the theoretical underpinnings of the empirical investigation and the methodology of research.

This chapter is organised into eight sections. In Section 1.1, I describe the central problem of SoTL enculturation, to which this thesis is a response. I argue that as SoTL is not a primary discipline for many scholars, entering the field is a challenging process that often requires the discursive conditions of access to be made explicit for newcomers. In Section 1.2, I define the focus of my study and explain why journal articles provide a suitable site for excavating the tacit and discursive conditions of access. In Section 1.3, I provide a context for my study by describing my background as an academic faculty developer with an interest in high impact practices such as SoTL journal publication. In Section 1.4, I argue the rationale for my study by drawing attention to the blind spots in existing knowledge about SoTL, the limitations of practical advice from how-to guides on academic publishing, the emergence of new methodological tools for mining knowledge structures, and the moral imperative of academic developers to develop expertise in what they do and to guide from a position of expertise. In Sections 1.5 and 1.6, I outline the theoretical and methodological foundations of my study respectively, justifying my choices of Legitimation Code Theory (LCT) and a qualitative social realist paradigm to frame and approach my research questions. In Section 1.7, I consider the significance of my study for ultimately contributing to a knowledge base on what counts as knowledge in international SoTL publication, from which academic developers can draw to facilitate new scholars' access into the field. In Section 1.8, I provide an overview of the structure of this thesis.

1.1 The research problem

Entering a new knowledge community from its outside or periphery is often a challenging journey for newcomers who are unfamiliar with the rules of membership and engagement of the new community. Some of these rules may be explicit, but many of them are tacit knowledge. For example, in the field of higher education research, Aarnikoivu and Kontowski (2021) identified intratextual and extratextual rules of writing and publishing which, they argue,

need to be made more transparent and accessible to early-career researchers. Such hidden rules of the game have also led some writing educators in higher education to describe academic writing as an institutional practice of mystery.

Similarly, the Scholarship of Teaching and Learning (SoTL) constitutes a specific knowledge community whose rules of access and participation are not always clear to new or relatively new entrants. The SoTL community comprises scholars from an increasing diversity of disciplines who are committed to enhancing the quality of teaching and learning in higher education through literature-informed, rigorous methodological inquiry, and peer-disseminated findings (Webb, 2020). For the majority of faculty members who have neither formal training in the kind of multi-disciplinary research that SoTL encompasses nor training in teaching itself, the process of border-crossing into the academic side of teaching brings with it ontological and discursive shifts that create internal struggle and take an emotional toll (Kelly, Nesbit, & Oliver, 2012).

The difficulty of SoTL enculturation is both affective and epistemic, but while the affective dimension has received much attention from universities through the formation of faculty learning communities to provide mentoring and peer support (Cox, 2003), the epistemic dimension does not seem to have received as much attention. While leaders in the field have developed relatively clear criteria and specific guidelines for good practice and communication (e.g., Felten, 2013; Healey, Matthews, & Cook-Sather, 2019), tacit knowledge has not been investigated adequately. For example, while it is often clear that good SoTL needs to have clear goals, adequate preparation, appropriate methods, significant results, effective presentation and reflective critique (Glassick, Huber, & Maeroff, 1997), questions often remain as to how SoTL research questions are developed, what relationships are established with theories and how rigour of method is evaluated (Miller-Young & Yeo, 2015).

The lack of transparency in what counts as SoTL seems particularly stark in peer-reviewed journal articles in the field, as evidenced by an example in Healey, Matthews, and Cook-Sather (2019), of an author (Kelly) who submitted a reflective essay to one such journal and received a rejection from one of the

reviewers: poor empirical material, unsupported argument, unclear methodology and conclusions were cited as reasons for the rejection. Kelly's frustrating experience raises important questions about legitimacy: whether reflective essays constitute legitimate journal articles in SoTL, and if they do, whether they should be evaluated by what appear to be the rules of reporting empirical research. Are there properties that are intrinsic to SoTL journal articles as a form of knowledge? Beyond journal information and author guidelines, what tacit knowledge about writing and publishing SoTL do scholars need to acquire to be accepted by peer reviewers as legitimate contributors to knowledge?

1.2 Purpose and scope

The primary concern of this study is to investigate the underlying organising principles of peer-reviewed journal articles in SoTL. Using concepts from Legitimation Code Theory, a sociological framework for researching and informing knowledge practices, the study will describe the relationships between forms of knowledge and/or kinds of knowers that validate a SoTL article. It will also reveal the degree of connection between meanings and their contexts to shed light on the basis of the article's contribution to knowledge.

The study of tacit knowledge of writing and publishing SoTL is focused on peer-reviewed journal articles as peer reviewers can be seen as gatekeepers to the field, and published writing as embodying the organising principles through which participation in the field should be approved. This makes SoTL journals an appropriate site for revealing the 'rules of the game' or legitimation codes shaping knowledge production in SoTL. Admittedly, journal publication is not the be-all and end-all of SoTL enculturation as participating in SoTL also includes activities that lead to presented research, publications outside journals (e.g., textbooks), and the production of personal and local knowledge (Ashwin & Trigwell, 2004; Kern, Mettetal, Dixson, & Morgan, 2015). However, the chosen focus on writing SoTL journal articles is well-suited to the specific context of this study, which is high-impact SoTL engagement for faculty development. This is a point which I shall next turn to.

1.3 Context

The context of this study is educational development, which is concerned with helping universities function effectively as teaching and learning communities. Educational developers, sometimes also termed faculty developers or academic developers, often act as training providers to acquaint faculty with the principles of good teaching, learning and assessment, and engaging them in enhancement work in these areas (Felten et al., 2007). In the climate of neoliberal managerialism across the whole of global higher education (Maisuria & Helmes, 2019) where universities are being increasingly held to account for teaching quality, efforts to enhance teaching are often accompanied by increasing emphasis on SoTL as an instrument of quality assurance and a strategy for faculty development at the institutional level (Geertsema, 2016; Geertsema, Chng, Gan, & Soong, 2018).

Universities in Singapore are no exception to the climate of neoliberal managerialism. In one of its largest comprehensive and research-intensive universities where I work, SoTL is employed at the university level to develop academic faculty on the education-focused career track. My work as a meso-level educational developer engaging colleagues in my department in writing and publishing SoTL provided the motivation for this study. My department is a teaching centre comprising about 60 academic and workplace literacy educators. Although SoTL is a new concept to the department, teaching and pedagogical research are not. In fact, the department has a reputation for teaching excellence as many of our colleagues have won university-level teaching awards. They have also presented papers regularly at teaching and learning conferences locally and internationally. Producing public knowledge that is verified, critiqued and read by those outside our immediate context was therefore determined as the level of engagement with SoTL for the department, and writing and publishing SoTL as the methodology for faculty development (Ashwin & Trigwell, 2004; Fanghanel, 2013).

Research on SoTL educational development has largely focused on building communities of practice to provide a network of support and encouragement

that goes some way towards reducing the identity dissonances and sense of isolation felt by many disciplinary scholars in making the transition to SoTL (Cox, 2003; Tierney, Aidulis, Park, & Clark, 2020). However, the focus on building epistemic capital has been limited. This study contributes to growing interest in the knowledge implications of SoTL enculturation (e.g., Webb & Tierney, 2020) with a specific focus on writing and publishing SoTL.

1.4 Rationale

One reason that justifies the study is that troublesome knowledge in SoTL is incompletely understood. Troublesome knowledge refers to concepts that learners find particularly challenging to grasp or apply (Perkins, 2006). Knowledge can be 'troublesome' due to various factors, such as the complexity of the concept itself and conflicting prior knowledge or beliefs held by learners. Research that approaches SoTL from an epistemic perspective has acknowledged SoTL as a form of troublesome knowledge (Manarin & Abrahamson, 2016; Webb, 2016). Disciplinary differences in rules and assumptions about what constitutes valid problems, rigorous methodologies and scholarly results have been identified as a contributing factor (Kelly, Nesbit, & Oliver, 2012; Webb, 2020). However, without demystifying the secrecy that surrounds what makes SoTL somewhat peculiar or distinctive as a form of knowledge, it remains difficult for disciplinary scholars to make the transition to SoTL with confidence.

Second, current efforts by leading scholars in the field to develop clear guidelines for writing and publishing SoTL (e.g., Healey, Matthews, & Cook-Sather, 2019; 2020) are insufficient. While these efforts are well-meaning and do go some way towards making knowledge explicit, guidelines are not rules. These guidelines are based on subjective experiences and informal advice which can be reductive. In a study of peer-reviewed, published writing in higher education, Sword (2009) demonstrated that what scholars say is good writing and what is actually published in top-ranked journals are not identical. A more systematic inquiry to obtain empirical evidence of the underlying structural

principles of published writing in SoTL is needed to lend credence to writing guides.

Third, a new way of approaching knowledge has emerged in the past decade to provide an alternative to troublesome knowledge and threshold concepts in SoTL. Legitimation Code Theory (Maton, 2014) provides a fresh pair of lenses to make visible the rules of the game shaping different communities of knowledge. For to see what is hidden is often difficult and requires a new gaze and different insight, this study comes at an opportune time to reframe the knowledge of SoTL with an interested eye on its tacit bases of achievement.

Fourth, the new challenges of "SoTL in the fourth wave" (Webb, 2020, p.9) call for a move towards high-impact engagement practices on the part of scholars and heightened capacity-building capabilities on the part of educational developers. In this light, educational developers can no longer avoid their duty to support scholars to produce public knowledge that would be peer-reviewed and consumed by the world beyond their immediate contexts, contrary to Geertsema's (2016) argument for a development-oriented strategy targeting more local levels of practice. To empower educational developers to fulfil their renewed role, it is necessary to build a robust and comprehensive knowledge base on writing and publishing SoTL. The present study thus contributes to this exigency.

1.5 Theoretical underpinnings

The view that informs knowledge production in SoTL journal articles in this study is Legitimation Code Theory (LCT) (Maton, 2014), a framework for researching knowledge practices such as journal publication. With its principal foundations in Basil Bernstein's code theory (Bernstein, 1990), LCT views knowledge as being underpinned by epistemic logics about what would constitute acceptable and successful displays of that knowledge. These epistemic logics or legitimation codes constitute the organising principles of knowledge production in the field. Revealing the legitimation codes means that scholars will be able to acquire the languages of legitimation that shape

published scholarship and thus hasten their access into one of the most important activities of the field.

LCT has been applied in educational research to characterise or compare knowledge practices (Maton, Hood, & Shay, 2016; Winberg, McKenna, & Wilmot, 2020). It has also been applied in educational development to make visible the organising principles of curriculum and pedagogy in ways that "contribute to shaping the epistemic spine of the field" (Vorster & Quinn, 2015, p.1043). However, it has not been applied to revealing legitimation codes in the SoTL side of educational development, and this study seeks to fill the gap.

Not only does LCT provide a language for describing knowledge practices, it is also a framework for the analysis of data (Maton, 2014). LCT is both a conceptual toolkit and an analytic methodology that informs this study. Organised into sets of concepts known as dimensions, LCT can be used to analyse different sets of organising principles (Maton, 2014). Of special interest to this study is the dimension of Specialisation, which highlights the fundamental question of what makes SoTL journal articles special: more specifically, what can be legitimately described as knowledge and who can claim to be a legitimate knower in these articles. The basic premise here is that in every field, knowledge is always made about something by someone, and thus legitimation codes can be described in terms of the objects of knowledge and/or attributes of knowers that are emphasised (McKenna, Quinn, & Vorster, 2018). Another relevant dimension is Semantics, which is applied to deepen the analysis of Specialisation in this study. The concept of semantic gravity from this dimension is applied to reveal the degree of abstraction of meanings that forms the basis of a journal article's contribution to the field.

1.6 Research design

This study takes a qualitative approach to researching the tacit bases of achievement in published journal articles in SoTL. Following a social realist paradigm premised on the key assumption that knowledge has real effects beyond being socially contested and negotiated, the study employs content

analysis guided by concepts from LCT to investigate and describe the articles' underlying organising principles, which are understood in this study as the objects/subjects of knowledge that are emphasised and the ways they are textually constructed through evaluation, explanation, and justification. My research questions are:

1) What objects/subjects of knowledge and the relationships between them are emphasised in internationally published journal articles in SoTL?
2) What relationships between the meanings of research outcomes and their contexts are emphasised in the articles' claims of contribution to the field?

The study first identifies the core components or basic building blocks of SoTL journal articles from which less overt structural patterns may be examined using concepts from LCT. The sample of the study comprises 93 journal articles published in four self-identified, generalist SoTL journals in the year 2019. This macro-analysis of overarching structures provides a starting point to understand the complexity of legitimation codes.

The study then attempts to analyse the knowledge structures and knower structures that legitimate the core components of SoTL journal articles. Concepts from the Specialisation dimension of LCT, namely epistemic relations and social relations, are used as a way of seeing the explanations and justifications that express legitimation of the core components. A system of revealing knowledge and knower structures is devised, piloted, refined and applied to analyse the content of the articles in terms of the concepts.

To deepen the analysis of Specialisation, the study then turns its focus to one of the core components concerned with the evaluation of findings in the articles. The concept of semantic gravity from the Semantics dimension of LCT is used to provide an analytical zoom into the meaning structures that legitimate the articles' contribution to the field. The meaning structures of interest to semantic gravity are concerned with the degree to which meaning relates to context.

Similarly, a system of revealing the degree of abstraction is devised, piloted, refined and applied to aid content analysis in terms of semantic gravity.

1.7 Significance

The present study is significant for the following reasons: first, it makes visible the tacit bases of achievement that underlie published peer-reviewed journal articles in SoTL and in so doing contributes to our understanding of the epistemic dimension of SoTL enculturation. Second, it elicits empirical evidence from a systematic and rigorous analysis of the underlying structural principles of published SoTL writing to corroborate (or challenge) published advice and guidelines on writing and publishing SoTL. Third, it represents a refreshing way of looking at SoTL, through the theoretical lens of Legitimation Code Theory, to produce new insights about the unspoken rules of writing and publishing SoTL, and shed light on the peculiarity of a form of knowledge of SoTL. Fourth, its findings will contribute to a building a robust knowledge base that will empower educational developers to better support scholars to ride a new wave in SoTL characterised by high-impact engagement. Such a knowledge base will also provide the epistemic capital for developing expertise in educational development.

1.8 Structure of the thesis

This introductory chapter has prepared the ground for a study on the underlying knowledge structures of SoTL journal articles. The principal argument it has made is that there is a need to crack the code of scholarship and unpack what counts as legitimate knowledge in these articles so that new scholars, many of whom are disciplinary researchers crossing over to become academic teacher-researchers, can be better supported to grow into their new identities. An outline of the subsequent chapters is provided as follows:

Chapter 2 presents a review of the relevant research literature that informs this study. The review aims to elicit insights into the following questions: 1) What are some factors that have contributed to challenges in enculturating and

developing SoTL scholars? 2) How have the challenges been approached and to what extent have they been satisfactorily met? 3) What can Legitimation Code Theory (LCT) bring to the development of SoTL scholars?

Chapter 3 describes the research methodology and details the procedures involved in the empirical investigation. Specifically, it argues the suitability of a qualitative social realist paradigm for the study's need for deep knowledge and its interest in knowledge as reification. It then describes how the data set comprising 93 journal articles was generated, why content analysis was adopted as the study's method, and how the analysis was performed using translation devices developed with the aid of concepts from LCT.

Chapter 4 presents the findings of the study. To address the first research question on the knowledge/knower structures that are validated in SoTL journal articles, it was found that: 1) the journal articles as a whole displayed a dominant knowledge code that emphasised epistemological objects over subjects; 2) research objects in the articles were specific, but they were less structured when viewed from the perspective of the field; 3) theories were relatively loosely connected to the research objects; 4) qualitative approaches, questionnaires and surveys preponderated the articles' methodologies; and 5) positive appreciation was the most common way in which research outcomes justified their significance. To address the second research question on the meaning relations that validated the articles' contribution to the field, it was found that: 6) the significance of research outcomes depended relatively heavily on the contexts of enquiry.

Chapter 5 discusses the findings by revisiting relevant literature on the legitimacy of SoTL from the empirical perspective to apprehend and illuminate the following questions: 1) Is SoTL research too inclusive for its own good? 2) Is it atheoretical? 3) Is it methodologically inadequate? 4) Is it inconclusive? Answers to these questions will renew understanding of the complexities of SoTL, and generate pertinent implications for the enculturation of new authors. Principally, it is argued that the location of contribution to knowledge in the realm of the concrete and particular may lend credence to previously held

claims about SoTL's disposition to immediate application and local orientation, but it also raises questions about the legitimacy of local significance in an international readership.

Chapter 6 concludes the thesis by first summarising and consolidating the study's findings to answer the research questions. It then discusses the limitations of the study by acknowledging that the knowledge dimension of SoTL enculturation is but one of several aspects of accessing the field, and that journal articles constitute just one of several sites in which contestations of legitimacy are played out and negotiated. What follows is a consideration of the theoretical, methodological, and practical contributions to SoTL and educational development. The chapter concludes with a discussion of the following implications: 1) faculty developers can better facilitate new authors' access into the field by familiarising themselves with the objects and relations of knowledge that are valued in international, peer-reviewed journals; 2) new scholars can have much to gain from a wider repertoire of ways to evaluate educational practices and communicate their findings to a wider audience; 3) new editors and reviewers may need a more informed appreciation of the provisional use of theory in SoTL research, and the location of contribution in the particularities of practice. They may also need to strike a better balance between promoting inclusivity and enhancing the coherence of the field.

Chapter 2: Literature Review

This chapter provides the theoretical underpinnings of a study of the underlying knowledge structures of journal articles published internationally in the field of Scholarship of Teaching and Learning (SoTL) in higher education. Its principal goal is to construct a robust theoretical justification for the study through a review of relevant literature. To achieve this goal, the review will be guided by a set of review questions.

The review questions were: 1) What are some factors that have contributed to challenges in enculturating and developing SoTL scholars? 2) How have the challenges been approached and to what extent have they been satisfactorily met? 3) What can Legitimation Code Theory (LCT) bring to the development of SoTL authors?

This chapter is organised into three main sections. In Section 2.1, research on the theme of SoTL is reviewed to make the argument that the evolving nature of SoTL, contestations about its legitimacy, and subjectivities around its knowledge features have collectively contributed to the difficulty of enculturating and developing SoTL scholars and authors. Critics often evaluate SoTL by the standards and expectations of educational research and traditional 'managed' research, and not on its own merits. Extant literature on the knowledge features of SoTL is often rooted in subjectivist and ideal notions of SoTL, and therefore insufficiently empirical. In Section 2.2, research on the development of SoTL scholars is reviewed to support the argument that educational development efforts to support scholars have responded well to the affective challenges of SoTL enculturation. However, they have not paid adequate attention to the epistemic dimension and are also insufficient for supporting practice change or transformation. In Section 2.3, research on LCT is reviewed to make a case for its potential to produce valuable knowledge about the underlying structure of practices such as SoTL journal publication, to inform the development of SoTL authors.

2.1 The scholarship of teaching and learning

This section reviews literature on the scholarship of teaching and learning to shed light on the antecedents and contributing factors that are relevant to the challenges of enculturating new scholars into the field. It begins with an overview of SoTL that includes its definition, location in wider debates about teaching and learning, and importance in higher education. I then show how the evolving nature of the field, contestations about its legitimacy, and subjectivities surrounding its language and conceptual features raise questions about *whose* norms and values new scholars should be socialised into, thus encumbering enculturation.

Scholarship of Teaching and Learning (SoTL) is a framework of higher education research that builds on the foundational works of scholars such as Lee Shulman and Ernest Boyer who underlined the importance of shared knowledge and expertise among educators and the systematic examination of teaching practices and their impact on student learning (Boyer, 1990; Shulman, 1993; Tight, 2019). It therefore represents a dynamic field of inquiry within higher education that focuses on the systematic study of teaching and learning processes to enhance student learning outcomes. Its primary aim is to generate knowledge about effective teaching practices, pedagogical innovations, and the factors influencing student engagement and achievement (Felten, 2013; Hutchings & Shulman, 1999). Scholars engaged in SoTL often collaborate across disciplinary boundaries, drawing upon educational theory and evidence-based practices to inform their research. For this reason, SoTL embraces a diverse array of research methodologies, including quantitative, qualitative, and mixed methods approaches (Hutchings, Huber, & Ciccone, 2011; McKinney, 2010).

The significance of SoTL lies in its contribution to the continuous improvement of teaching and learning practices in higher education through rigorous enquiry and reflection, ultimately fostering a culture of evidence-based educational practice and change (Shulman, 1993). Additionally, SoTL is significant for its potential to inform and transform teaching practices, ultimately leading to

enhanced student engagement, deeper learning experiences, and improved student success rates (Hutchings, 2000). At its core, SoTL seeks to bridge the gap between pedagogical theory and classroom practice (Cross & Steadman, 1996). It is an important driving force for educational development, fostering reflective teaching practices, innovating pedagogy and curriculum design, building inclusive and student-centred learning environments, and cultivating a culture of lifelong learning among both educators and students.

2.1.1 The evolving nature of SoTL

Originating as the scholarship of teaching in 1980, the concept has evolved into the scholarship of teaching and learning in the four decades since it first appeared. Early conceptions tended to refer to SoTL as what many today would regard as scholarly teaching, which is characterised by carefully planned and continuously examined procedures and relates directly to the subject taught (Boyer, 1990). Despite variation between individuals, institutions, disciplines and countries in the interpretation and emphasis of the concept, Healey (2003) found a general consensus among the faculty he surveyed in the idea that SoTL "involves studying, reflecting on, and communicating about teaching and learning, especially within the context of one's discipline" (p.21).

Over the past 25 years, the concept of SoTL has shifted from a focus on scholarly teaching to the research-informed enhancement of student learning across the disciplines. More recently, Trigwell (2021) argues that SoTL is first about improving student learning, and second about scholarship, which requires gathering evidence and making transparent for public scrutiny how learning has been made possible. Webb (2020) thinks that SoTL in the 21st century is both inter- and intra-disciplinary as it has become an international movement that contributes to the quality of teaching and learning in higher education "through literature-informed, rigorous methodological inquiry, and peer-disseminated findings… regardless of the theoretical positions from which inquirers come" (p.2).

The future of SoTL as it enters a fourth wave, according to Webb (2020), is characterised by the following exigencies: first, the need to build capacity amongst faculty members in order to develop and initiate impactful SoTL projects and sustain faculty engagement; second, the need for continued theorising on the nature of a SoTL educational leader; third, the need for SoTL leaders to embrace 'glocal' philosophies to encourage SoTL research and programmes that are global in principles but local in situation; fourth, the need for a more expansive view of SoTL that moves beyond individual classroom research to evaluating program and curricular change; and finally, the need to engage students as partners in pedagogical and curricular research.

The evolving nature of the concept of SoTL poses challenge for scholars who are trying to write their way into the field as journal peer reviewers may be coming from different conceptions of SoTL and bring with them different values and expectations about SoTL and how it should be communicated. Published journal information and review criteria may go some way towards aligning expectations, but they are not sufficient as the assumptions that reviewers bring to the review may affect their interpretation of criteria (e.g., appropriate methods). Journal articles, being a tool of collective knowledge advancement and situated at the intersection of the demands of different readers, writers, reviewers and editors, are always a zone of compromise. However, we have no means of ascertaining at this point how such compromise is textualised or how it translates into languages of legitimation. There is a need to take stock of the current state of what is validated as SoTL in journal articles, and this study is an attempt to meet that need.

The present study contributes to the first two imperatives of Webb's (2020) vision of the future of SoTL. By making transparent the tacit rules of writing and publishing SoTL, SoTL scholars will gain increased confidence and agency to engage with SoTL through successful, high-impact journal publication. The findings on tacit knowledge will also feed directly into a knowledge base that will inform educational developers to support colleagues in SoTL journal publication, develop expertise in educational development and professionalise educational developers.

2.1.2 The legitimacy of SoTL

The legitimacy of SoTL has been challenged from various perspectives within higher education. Key criticisms are related to methodological rigour, a perceived lack of generalisability, resistance from traditional scholars, and difficulties in peer review (e.g., Boshier, 2009; Kanuka, 2011; Servage, 2009). SoTL has been criticised for being amateurish and parochial, and more generally for its lack of legitimacy as a form of research. Critics often call attention to its unsatisfactory theorisation, inadequate methodological rigour and limited impact (Canning & Masika, 2022; Kanuka, 2011). They argue that SoTL research lacks the methodological rigour expected in traditional academic disciplines, questioning the validity and reliability of findings derived from self-reported data and small sample sizes. They are sceptical about the generalisability of SoTL findings to broader educational contexts (Boshier, 2009) due to differences in teaching methods, student populations, and institutional settings. Some regard SoTL as less prestigious or intellectually rigorous compared to disciplinary research, and resist recognising it as a legitimate form of research (Boshier, 2009; Macfarlane, 2011; Servage, 2009). Some have also challenged the rigour and fairness of peer review processes for SoTL publications (Boshier, 2009), questioning in particular the ability of SoTL journals to find appropriate peer reviewers with expertise in both the subject matter and educational research methodologies, given the interdisciplinary nature of SoTL research.

Boshier (2009), one of SoTL's most forceful critics, has described SoTL as lurking at the periphery of academic life and a fallback route for academics who are not excelling in disciplinary research. To address its deficits, it has often been suggested that SoTL requires more education theory to authorise its application in an educational space and that it is necessary to use education research frameworks when approaching SoTL research (Kanuka, 2011; Webb, 2020). More recently, through a systematic review of academic literature in the field, Tight (2018) found that most research remains "small-scale, short-term and local in orientation" (p.72), and "achievements have been limited."

Apart from lacking rigour, another oft-repeated criticism concerns SoTL's lack of distinctiveness. According to Servage (2009), SoTL has always resided in the long shadow of academic research. Tight (2018) argues that a lot of SoTL work would have taken place anyway in the general guise of pedagogical research and educational development. Interviews conducted by Canning and Masika (2022) also demonstrated that educational leaders viewed SoTL as little more than a catch-all for various activities around teaching and learning. The authors argue that SoTL has become too inclusive and thus outlived its usefulness. They even go further to characterise SoTL as a thorn in the flesh of educational research, and call for higher education researchers not to 'open up' in the name of inclusivity to the SoTL agenda and those whose work has no scholarly foundation.

As can be seen, studies that are critical of SoTL often evaluate it from the vantage point of the orthodoxies of traditional empirical and managed research (e.g., theoretical and methodological rigour, high impact, etc.), and frequently by the standards of educational research (e.g., that it needs more education theory and education research frameworks). In practice, it seems that SoTL is more often understood in terms of what it is not (e.g., educational research, pedagogical research or educational development) rather than what it is. As Ashwin (2012) aptly notes, "too much of what passes for criticism in higher education research is focused on castigating other researchers for not taking the 'right' approach to their research, rather than engaging with what they are actually trying to achieve, and recognising the way that all research is bounded by the collective practices that characterise a field of enquiry at a particular moment in time and space" (p.947). The time is ripe for SoTL to be examined on its own merits rather than through a higher education research lens. This necessitates inquiry into its intrinsic properties, and legitimation codes provide one such channel.

2.1.3 The knowledge features of SoTL

Studies that focus on the communicative aspect of SoTL have explored the textual forms of knowledge that are validated in SoTL. Kern et al. (2015) set out

in their Dimensions of Activities Related to Teaching (DART) model the forms of knowledge that best represent SoTL, namely peer-reviewed presented or published empirical research, meta-analyses, textbooks, literature reviews, published essays on teaching with references, and published case studies. Cook-Sather, Abbot, and Felten (2019) propose that standards for publication be expanded beyond distanced, data-soaked publications to legitimate reflective writing and make *all* SoTL writing more explicitly reflective. They reason that even in 'traditional' scholarly writing, there may be many hours of reflection that do not make it to the page but nonetheless inform the argument; this less visible aspect of scholarship ought to be made more visible. Using examples from a growing body of reflective writing, they illustrate the potential of the reflective genre to expand what counts as rigour in the construction and representation of knowledge about teaching and learning.

Exploring the genres or 'text types' of SoTL, Healey, Matthews, and Cook-Sather (2019) discuss the process of writing four types of SoTL-focused writing for peer-reviewed journals, namely empirical articles, conceptual articles, reflective essays, and opinion pieces. They offer heuristic frameworks (guiding questions for thinking about writing) for publishing in these genres. In a subsequent extension of this work, the authors further explore and offer guidelines for writing literature reviews, case studies, books and edited collections, conference and workshop presentations, stories, social media, and applications for teaching awards, fellowships, and promotions (Healey, Matthews, & Cook-Sather, 2020). The authors' arguments are informed by their formative experiences of inquiring into learning and teaching, their shared and diverse learning and teaching identities, and their integration of personal communications received from critical friends in response to drafts of their book.

The studies reviewed thus far suggest that preferred forms of writing in SoTL are generally based on a subjectivist account of knowledge that includes the lived experiences of writing, collegial dialogues and critical reflections. Rarely do these understandings of legitimacy emerge as a result of systematic

investigation. It appears that there is room for more evidence-based accounts to complement and enrich what is currently known.

There is evidence of emerging attempts to go beyond subjectivist accounts of knowledge to empirically analyse the use of literature in SoTL research, but more needs to be done. Cappello and Miller-Young (2020) analysed a year's worth of articles, totaling 18, from the *Teaching & Learning Inquiry* (TLI) journal published in 2018. They found a high rate (over 70%) of in-text citations to be non-substantive (i.e. playing a circumstantial or perfunctory role that does not validate arguments). They also found that a comparably high rate of non-substantive citations appeared in either the Introduction or Literature Review sections of the articles. Despite a high frequency of in-text citations amounting to about 120 per article, their evidence-based study suggests the articles to be legitimated by a knowledge structure that privileges breadth over depth. We need more empirical analyses of the type done by Cappello and Miller-Young (2020) to complement the heuristics and guidelines that are currently available to support scholars in writing and publishing SoTL. It would also be interesting to see if a similar knowledge structure is observed in a larger corpus of articles that include those from beyond TLI.

Apart from communicative forms, there are also studies that target the conceptual features relating to theoretical foundations and methodological rigour in SoTL journal articles. Manarin et al. (2021) analysed 299 empirical articles published between 2013 and 2017 in three general SoTL journals to investigate the conceptions of teaching and learning on which the articles are based. They found most studies to have adopted a narrow view of learning and focused more on teaching than learning. However, they did not examine non-empirical articles.

Complementing Cappello and Miller-Young's (2020) line of inquiry on citation practices, Chick et al. (2021) explored how SoTL authors think about citation and what their intentions are when making citation decisions. Their findings suggest a misalignment between SoTL's ideals (e.g., diverse voices and inclusivity) and its on-the-ground practices. They found that most authors fell

back on a more familiar literature base in their primary discipline, suggesting that they may often choose citing relevant canon over diversifying the voices they want to include. Their study underlines the value of examining on-the-ground communicative practices to balance studies that more often imply SoTL ideals.

Deliberating on methodological considerations, Hubball and Clarke (2010) highlight the importance of appropriateness for purpose and context and the issues of validity, reliability and practicality. Purpose and context considerations include problematising one's practice by asking preliminary questions (e.g., "what's going on here?", "what are the strengths and weaknesses of 'X'", "how can I enhance 'X'", "why is 'X' happening", etc.), pointing to the central intent of the investigation and the sorts of insights sought to enhance specific practices, and considering the broader and interconnected factors such as theory-practice integration and process-outcome relationships.

Hubball and Clarke (2010) reason that appropriateness and practicality considerations are important because the diverse and multi-disciplinary contexts of SoTL mean that there is no single best approach to investigate SoTL, and that approaches often most familiar to disciplinary scholars may not be the most ideal for yielding the richest results needed to answer what is at the heart of the investigation. Echoing their concerns for alignment, Chick (2014) urges care and attention to process in *how* (rather than *what*) research tools are applied as methodological rigour comes from relevance to the goal of the project and the richness of evidence and analysis to represent the complexity of student learning meaningfully.

On the broader and interconnected considerations (Hubball and Clarke, 2010), Miller-Young & Yeo (2015) argue the importance of explicit articulations of the "particular stances and world views about such things as how learning works, as well as assumptions about methodology" (p.38) in legitimating theoretical and methodological rigour. Through an analysis of eight example studies representing a range of theoretical and methodological paradigms, they underline the need to establish internal compatibility and alignment by making

transparent the tacit links between theories and methodologies in communicating SoTL. Haigh and Withell (2020) second the need to make visible the assumptions that underlie theory-practice integration. Based on their observations of journal-based accounts of SoTL projects, the authors suggest that more needs to be done to help scholars attend explicitly to research paradigms and their implications for their projects.

From the studies reviewed on the conceptual features of writing SoTL journal articles, it becomes clear that the bases of achievement of successful publication focus on ideal notions of what *should be* theoretical and methodological rigour rather than what *is*. Demanding such ideals from authors may produce high quality results from inquiry but also frustration and alienation from many scholars. There is a need to move away from what works in terms of getting an article published to what is happening in terms of constructing an article. Without more realistic views to ground and balance the discourse, there is danger in holding too tightly to what may turn out to be "dysfunctional illusions of rigour" (Nelson, 2010, p.178).

Additionally, most of what we know about the ideals is based on conceptual articles that are often backed by limited data or indirect evidence, with the exception of Manarin et al. (2021) who undertook an empirical analysis of 299 SoTL journal articles. However, they did not analyse non-empirical articles that are nonetheless published in those journals, which renders their attempt to depict what is (happening) somewhat incomplete. On the whole, the studies implying conceptual ideals have also not paid much attention to how evidence is analysed and used to meaningfully answer the project's enquiry. Chick (2014) does touch on this aspect towards the conclusion of her reflective essay, but again her reflections are based on a synthesis of literature and insufficiently grounded in the here-and-now of SoTL journal articles. We need more studies belonging to the kind of "rigorous inventory taking and analysis" (Chick, Nowell, & Lenart, 2019) such as Manarin et al. (2021) to map the knowledge practices of the field, and the present study represents an attempt to answer that call.

2.2 The development of SoTL scholars

As discussed in the previous section, the interdisciplinary nature of SoTL gives it an inherent complexity that, when coupled with the diverse backgrounds of incoming scholars, makes enculturation into the field a challenging border-crossing experience for many new scholars. The enculturation of new scholars is a demanding transition to navigate because it calls for a nuanced understanding of SoTL's complexity that may not align with traditional disciplinary training (Kelly et al., 2012). Even relatively new scholars who have been SoTL-ing for a number of years often continue to be challenged by the "ontological and discursive shifts in the novice to expert continuum" (Webb, 2016, p.304) that need to occur especially when they try to disseminate their scholarship through international journal publication. In universities that are less well-resourced, newcomers and less experienced scholars are often left without clear guidance or structured mentorship. Consequently, there is a need to develop SoTL scholars and authors who can navigate SoTL's complex landscape confidently and effectively. Nurturing the growth of SoTL scholars is vital for SoTL to deliver the continued improvement of student learning through evidence-based teaching practices and innovations.

This section reviews literature on the development of SoTL scholars with the goal of evaluating the extent to which current efforts to support scholars in making the transition from disciplinary research to SoTL are sufficient to meet the challenges they face. In Section 2.2.1, I show how the border-crossing process for new scholars presents both affective and epistemic challenges. In Section 2.2.2, I argue that current efforts to support scholars have been more responsive to their affective challenges than epistemic challenges.

2.2.1 Affective and epistemic challenges

Common challenges experienced by faculty engaged in SoTL have been identified to be competing priorities, a lack of familiarity with SoTL literature and methodologies, and isolation (Kim et al., 2021). More specifically, theories of difficulty have been developed to apprehend these challenges, two related ones

being troublesome knowledge and threshold concepts. Troublesome knowledge is counter-intuitive to learners and challenges their previous understanding or existing beliefs (Perkins, 2006). Threshold concepts are troublesome concepts on which deep understanding of a field of practice or inquiry hinges and which, once understood, open a portal to otherwise inaccessible ways of thinking (Meyer & Land, 2006). They also challenge learners to reflect on tacit knowledge of which they are only peripherally aware or entirely unaware.

Exploring SoTL as a form of troublesome knowledge, Manarin and Abrahamson (2016) found through surveys and interviews that SoTL was valued differently in the academy, often occupying a liminal space within it. At times these valuations conflicted and competed, leading to a troublesome space in which practising SoTL could disrupt the personal, relational and contextual domains of academic identity. For example, Simmons et al. (2013) noted intrapersonal identity conflicts around the enculturation experiences of eight SoTL scholars from five different countries. The scholars found it difficult to identify with a culture that was still constructing itself, let alone gather a strong sense of its rules of engagement. This then led to feelings of doubt and insecurity. Similar affective dissonances were observed in a group of seven SoTL scholars working in an academic skills support centre in an Australian university where SoTL work was often viewed as illusory and fanciful to the rest of the university. They felt "potentially monstrous, in some sense unwelcome and disturbing within the wider university" (Bennett et al., 2016, p.221) as they negotiated a tripartite and liminal academic identity comprising the three roles of a teacher, a disciplinary scholar and an educational researcher.

Apart from affective dissonances, there are also epistemic issues of knowing that had to be resolved in the troublesome knowledge of SoTL. Kelly, Nesbit and Oliver (2012) undertook a reflective discussion on their difficulties as scientists and engineers transitioning contexts from STEM to SoTL. They discovered that "acknowledging the contexts, methods and metaphors that differentiate STEM from SoTL" (p.8) was a major step in their transitional journey. More specifically, each discipline or field had a different body of

knowledge, skills, attitudes and values about preferred forms of evidence, argument, narrative and explanation (context), different ways of inquiring about the teaching and learning of its subject matter (method), and different ways of presenting evidence and argument and expressing the results of its inquiry back to its respective discipline-specific audiences (metaphor). However, as it will be argued in the next section, while the affective dimension of troublesome knowledge is frequently addressed by institutional and peer-based support, the epistemological dimension has not received sufficient attention.

Working from the perspective of threshold concepts, Webb (2016) identified three threshold concepts of significance in SoTL, namely conceptions of research, permeability within institutional cultures, and embracing liminality. She constructed them from questionnaires and interviews with educational leader-participants of a SoTL faculty certificate programme in 2013, who most frequently highlighted their disconnect with the language of a new field, moving between ways of thinking and practicing in different fields, and oscillating continuously between novice and expert identities as major 'stuck places' in SoTL research. The first concept was reaffirmed and renamed 'scholarship' in Webb and Tierney (2020). While threshold concepts provide useful entry points into the deep knowledge of SoTL, concepts are abstractions that need to be complemented by explicitly articulated particularities about tacit knowledge for enculturation to succeed.

2.2.2 Efforts to support SoTL scholars

Common responses to the challenges of SoTL enculturation may be considered in terms of general approaches and specific strategies. A review of studies on educational development reveals three broad approaches that structure responses to the challenges of SoTL development. These include inclusive, development-oriented, and transformational approaches. Inclusive approaches tend to recognise the diversity of purposes, processes and outcomes for practising SoTL (Ashwin & Trigwell, 2004). Here, educational developers often strive to balance between securing a growing rate of SoTL-engaged faculty and raising the sophistication within scholarly dialogues (Roxå, Olsson, &

Mårtensson, 2007). They also attempt to provide support that is focused on the practitioner's situation.

In more recent discussions, the notion of development-oriented has come up as a response to the increasing diversity of SoTL practitioners *and* the difficulty of sustaining faculty engagement at higher levels of practice characterised by the creation of peer-verified, public knowledge which appears to resemble the interests of published educational research. Geertsema (2016) thus calls for a locally oriented SoTL whereby the time and energy of faculty developers might be "more productively spent elsewhere, perhaps in fostering the kinds of activities that prevail in… 'Sharing about Teaching' and 'Scholarly Teaching'" (p.132).

In contrast to a locally oriented SoTL, another recent notion is a transformative orientation that seeks to confer on scholars the mobility to shift between different levels of SoTL practice (i.e. personal, local and global) to obtain the best chances of sustained engagement for themselves. The role of educational developers then, is to give scholars equal access to powerful knowledge, to transform practice (Ashwin, 2022). This means equipping scholars with a deep understanding of how different forms of (SoTL) knowledge are produced and validated in particular social groups, and how epistemic logics vary as knowledge changes from one form to another.

Two common strategies that have been conceived to support the educational development of SoTL scholars are institutional and peer-based support. These strategies are not bound to any of the approaches discussed above, and they may also be used in combination (e.g, Kim et al., 2021). Institutional support usually comes in the form of university-wide structured programmes designed for faculty to engage in SoTL research (Kim et al., 2021; Webb & Tierney, 2020). For example, York University's year-long Education, Curriculum and Teaching Excellence Course (EduCATE) is designed to engage faculty in action research on any aspect of teaching and learning and contribute to SoTL literature. The University of British Columbia Scholarship of Educational Leadership Program (UBC SoEL), which lasts 4-8 months, engages

educational leaders (comprising both experienced and novice researchers who are new to SoTL) in leadership initiatives to impact the quality of teaching, learning and/or curriculum practices within meso- or macro-level contexts. Apart from more extended programmes such as EduCATE and UBC SoEL, institutional support may also come in the form of shorter seminars and workshops focused on specific topics (e.g., an introduction to SoTL, getting your SoTL work published, best practices in survey design, etc.). Some institutional programmes such as EduCATE also embed a peer-based element.

Apart from university-wide programmes, seminars and workshops, many faculties also provide a more intimate form of support that is peer-based. Faculty Learning Communities (FLCs), for instance, may be formed between a group of individuals who "work and learn collaboratively based on a shared commitment to achieving mutual understanding of a shared concern or interest" (Bailey et al., 2022, p.266). Such formations may be egalitarian, or they may incorporate mentoring whereby a more experienced colleague leads discussions on specific teaching and learning issues, facilitates the exchange of experiences and insights, and advises on individual teaching projects concerned with the subject of the learning community. FLCs may also be topic-based or cohort-based.

In general, peer-based strategies seem to have been more effective than institutional support for developing SoTL scholars. Their advantage seems to lie in promoting contextualised and active learning, reducing isolation by offering a safe space in which participants can share anxieties and concerns and receive collegial support to develop their scholarship projects, and encouraging accountability (Bailey et al., 2022; Cox, 2003; Hubball & Albon, 2007). Institutional programmes tend to be effective only to the extent that they are coherently organised (Goh, 2016). However, strong coherence cannot be assumed as educational development programmes "continue to be underpinned by a diffuse knowledge base that often draws from a weak theoretical stockpot" (Vorster & Quinn, 2015, p.1031).

While peer-based strategies seem to work better, their effectiveness may be partial towards the affective challenges of SoTL enculturation. In other words, they do go some way towards easing the tensions that scholars feel about competing priorities and isolation, but do not seem to increase much confidence in scholars' work with SoTL literature and methodologies or help them meet the epistemic demands of their work adequately. For instance, the participants of the EduCATE programme in Kim et al.'s (2021) study reported appreciating more guidance and support in SoTL methodology and knowledge of the SoTL literature beyond the programme, despite the programme infusing a peer-based component.

A study on the epistemic logics that underpin journal-based SoTL knowledge can therefore go some way towards strengthening the epistemic spine of both institutional and peer-based support for SoTL scholars. Vorster and Quinn's (2015) study documents how they analysed the epistemic logics that underpinned the curriculum and pedagogy of a course aimed at inducting educational developers into the field. The analysis led to a formal and systematic induction of newcomers, equipping them with a solid base of meta-theoretical knowledge that would help them execute their roles meaningfully. However, Vorster and Quinn (2015) were working within the context of educational development in Higher Education and not SoTL. We also need more studies like Vorster and Quinn (2015) that explore epistemic logics beyond curriculum and pedagogy, to research genres.

By making accessible powerful knowledge that makes visible the underpinning epistemic logics of SoTL journal articles, the present study is well placed to support a transformational approach to educational development. Its findings will also benefit an inclusive approach, most directly scholars involved in the production of public knowledge for peer verification and critique. However, it does not agree with Geertsema's (2016) justification for a developmentally oriented approach as a regression to local purposes, processes and outcomes is not a convincing reason for avoiding SoTL's resemblance with educational research at higher levels of practice.

Giving all scholars access to elevated levels of practice would fit the mission of educational development better than downgrading everyone, and this means enabling access to powerful knowledge. Making visible the underpinning epistemic logics is thus a step towards discerning the peculiarity of SoTL and overcoming the bottleneck of Geertsema's (2016) locally oriented approach.

2.3 Using Legitimation Code Theory (LCT) to conceptualise epistemic responses to the development of SoTL scholars

From the discussion in the previous sections, it has been established that: 1) apart from the evolving nature of SoTL, contestations over its legitimacy and subjectivities surrounding its knowledge features add complexity to the enculturation of new scholars; 2) current efforts to support new scholars have been insufficiently responsive to the epistemic challenges that they face.

In this section, I will review relevant literature on Legitimation Code Theory (LCT) to make the argument that LCT has the potential to navigate some of those complexities and challenges by bringing knowledge to the fore, to reveal 'official' knowledge as the reification of dominant interests and values, such as the objects and/or subjects of knowledge that are emphasised in peer reviewed journal articles. The section will begin with an introduction to LCT, its philosophical underpinnings and underlying assumptions to provide a sense of what it means to approach SoTL from an LCT perspective, to be interested in the underlying structures of knowledge. In Section 3.1, I argue that the Specialisation dimension of LCT has the potential to reveal the epistemic and/or social relations that make journal articles in international SoTL peculiar. In Section 3.2, I argue that the Semantics dimension of LCT - in particular, its notion of semantic gravity - has the potential to reveal how meaning in SoTL research outcomes is related to context, and shed light on their observed generalisability.

The present study is anchored in a theoretical perspective that views educational knowledge as legitimation codes. Legitimation Code Theory (LCT) is a sociological framework for researching educational and social practices.

Developed by Karl Maton since the late 1990s, it is both a conceptual and analytical toolkit that incorporates and extends ideas from Basil Bernstein and Pierre Bourdieu (Maton, 2014). LCT's principal aim is to provide researchers with a way of understanding how fields develop by building knowledge and making meaning. It does so by making visible the underpinning organising principles that cannot be easily accessed through a common-sense or everyday set of lenses.

LCT adopts a social realist epistemology that views knowledge as not only social but also real in the sense of possessing properties, tendencies, and powers (Maton, 2014). This means that the forms of knowledge that we create in specific contexts have the ability to shape and influence those contexts and the actors within them. As Maton (2000) notes, "when actors make claims on behalf of their field (or specific position within it), they are also proposing a ruler for participation within the field and proclaiming criteria by which achievement within this field should be measured" (p.149). For this reason, LCT has been more accurately described as a "sociology of legitimacy" (Maton, 2014, p.17). Social realists in education also view knowledge as a serious and legitimate object of study in its own right, as they are unsatisfied with the current state of educational knowledge as being dominated by subjectivist and essentialised accounts (e.g., expert advice and guidelines for writing and publishing SoTL).

As a sociology of legitimacy, LCT conceives educational knowledge as legitimation. This means embracing an analysis of both knowledge and knowers, as power or legitimacy resides in both the knowledge that comprises the claims made by knowers, and in the knowers' discursive acts. These acts may be achieved through strategies that include carving out and maintaining intellectual spaces, and proclaiming a raison d'eˆtre that provides the conditions of existence for those spaces (Maton, 2000). To analyse knowledge as legitimation is therefore to examine the foci of knowledge claims and how knowers make those claims across various stages of a practice (Wolff, 2020).

Knowers' discursive acts and their underlying raison d'être therefore constitute the tacit 'rules of the game' or underpinning organising principles of practices.

LCT conceptualises these underlying structures as codes. Whoever gains access to legitimation codes therefore, also acquires a means to exert some agency to endorse, enforce or influence the structuring of those practices. Viewed in this light, LCT has worthy implications for social justice, making the conditions of access to powerful knowledge more transparent and equitable.

LCT offers five different dimensions or sets of concepts which allow researchers to get beneath the surface of knowledge practices to make visible their underpinning organising principles. Each dimension explores a different set of organising principles underlying practices, dispositions and contexts. So far, the three most elaborated dimensions are Specialisation, Semantics, and Autonomy. The present study uses mainly Specialisation to investigate the tacit structuring of journal articles in SoTL. Its aim to understand the intrinsic properties of knowledge that makes these articles distinctive or peculiar makes Specialisation a particularly suitable choice of dimension of analysis.

2.3.1 Specialisation

The dimension of Specialisation highlights a fairly straightforward question of what makes a field of practice 'special'. It considers this question with reference to two sets of relations, namely epistemic relations (ER) and social relations (SR). According to Maton (2014), all fields will have both epistemic relations to the object of knowledge and social relations to the subject of knowledge. However, rarely are both equally prominent in terms of the organising logics of the field; one is usually privileged over the other, either explicitly or tacitly. Both the epistemic and social relations can therefore be relatively stronger (ER+, SR+) or weaker (ER-, SR-) along a continuum, and they combine to create what are known as specialisation codes, which are used to represent the underpinning organising principles that legitimate the field and the knowers within it.

Four codes are possible under Specialisation: a knowledge code (ER+, SR-) in which the emphasis is largely on theoretical, procedural and technical knowledge; a knower code (ER-, SR+) which privileges particular dispositions

or attitudes; an elite code (ER+, SR+) where having a particular type of knowledge and being a particular kind of knower are both emphasised; and a relativist code (ER-, SR-) where neither specific knowledge nor specific kinds of knowers is emphasised. The four codes are represented graphically in a Cartesian plane (see Figure 2.1) to enable researchers to capture the underpinning organising principles of fields or practices topographically.

Figure 1

Specialisation Codes (Maton, 2014, p.30)
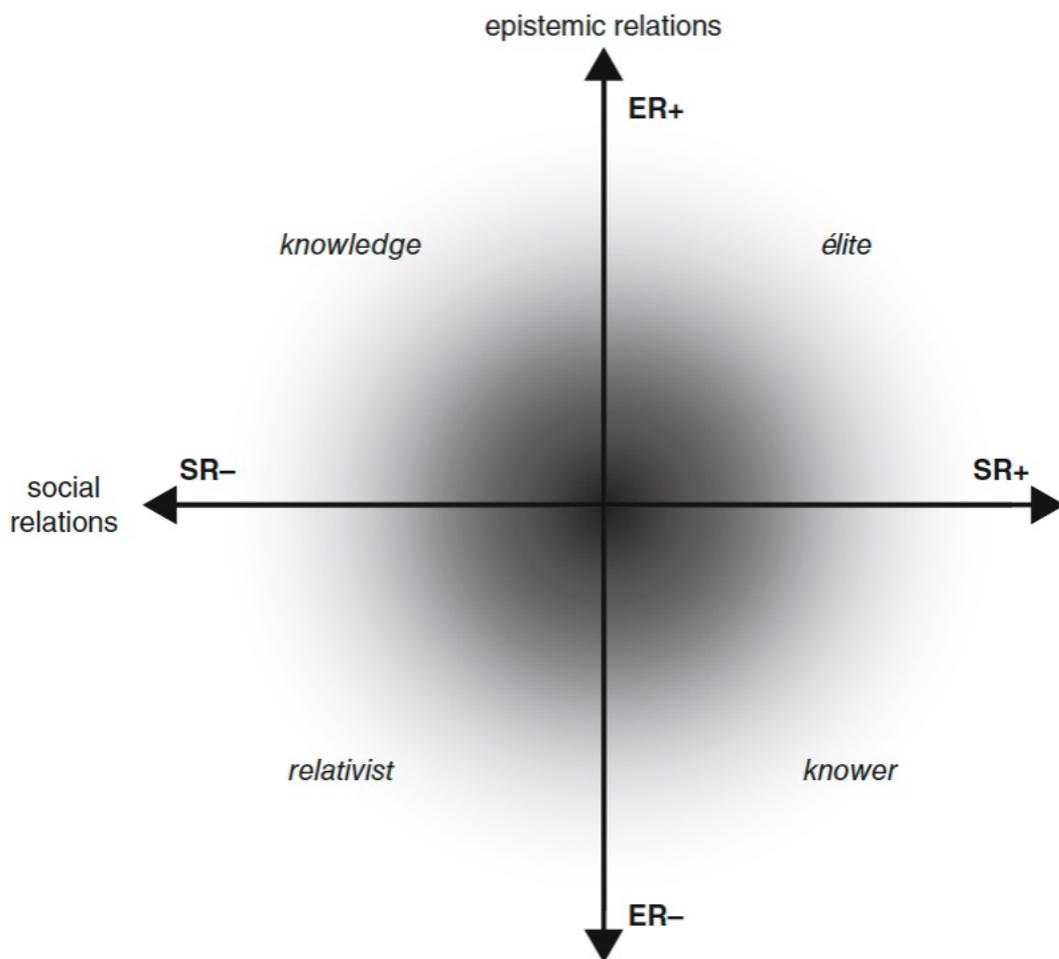
Specialisation analysis has been applied to various academic fields to reveal their underlying structuring principles. For example, while the field of Higher Education Research has been found to manifest a knowledge code in which the use of and contribution to rich theory is most valued (McKenna, Quinn, &

Vorster, 2018), English studies and jazz studies have been shown to be examples of knower-code fields (Christie, 2015; Martin, 2015). Specialisation has not been applied to the field of SoTL; it would therefore be interesting to see which specialisation code is manifested by SoTL and what specific kinds of knowledge or knowers are validated the most.

2.3.2 Semantic gravity

Semantics is another dimension of LCT which explores the context-dependence and complexity of practices (Maton, 2014). The principal concepts in Semantics are semantic gravity and semantic density. Semantic gravity refers to the degree to which meanings relate to their contexts: the stronger the semantic gravity, the more dependent meanings are on their particular contexts; the weaker the semantic gravity, the less so. Semantic density relates to complexity of meanings. The stronger the semantic density, the more meanings are condensed into terminology or symbols; the weaker the semantic density, the less such condensation occurs. According to Maton (2014), these concepts can be enacted either separately or together to explore semantic codes. In this study, semantic gravity is separately enacted to complement and deepen the analysis of Specialisation to capture the specific practice of scholars' contributing to new knowledge in the field.

Semantic gravity has been independently applied to analyses of reflective writing in pre-service teacher education (Macnaught, 2021) and the process of data commentary in doctoral thesis writing (Wilmot, 2021) to reveal ways in which the movement between context-dependence and context-independence across these writing practices can lead to more successful texts, and a deeper understanding of the ways in which teaching could be better structured to support writing success. Semantic gravity has also been combined with semantic density, another concept from the Semantics dimension of LCT, to facilitate theorised and stimulating conversations between educational developers and academic lecturers that better support the latter's adaptive pedagogy (Clarence & van Heerden, 2021). However, beyond educational development in general and student learning support, semantic gravity has not

been applied in the specific context of supporting disciplinary researchers to write journal articles in SoTL.

The particular context of this study being SoTL enculturation, semantic gravity offers an especially apt choice of conceptual tool as "mastery over semantic gravity represents a gateway to joining [the field's] conversation about what it should be like" (Maton, 2014, p.124). It is expected that the application of semantic gravity in this study will make the specific process of claiming contributions to knowledge in the field more explicit and demonstrable to both scholars and educational developers. Overall, the value of LCT for this study is a deeper and more nuanced understanding of the specific kinds of knowledge and particular kinds of knowers that are most valued in journal articles in SoTL. This understanding can then contribute to a robust knowledge base from which educational developers can work to better support scholars in writing and publishing SoTL, creating access to a powerful knowledge that will facilitate their enculturation into the field.

2.4 Conclusion

This chapter has provided the theoretical underpinnings of a study of knowledge structures in SoTL journal articles. From a review of studies related to SoTL, the educational development of SoTL scholars, and LCT, it has established the overall argument that the evolving and interdisciplinary nature of SoTL presents complexities that pose challenge to the enculturation and development of SoTL scholars. Existing efforts to support new scholars in their transition from disciplinary research to SoTL have responded well to the affective challenges of enculturation. However, more needs to be done to meet the epistemic challenges. One way to do so is to conceptualise epistemic responses to such challenges using LCT. It is argued that LCT holds promise for bringing into view the underlying knowledge structures, namely the epistemic and/or social relations, and semantic gravity, that dominate reified forms of 'official' knowledge such as international, peer-reviewed journal articles in SoTL in higher education.

In the next chapter, I present the methodology and method of the study. The suitability of a qualitative research approach and social realist paradigm for the empirical investigation is first considered. I then describe how the data set comprising 93 journal articles was generated, why content analysis was adopted as the method, and how the analysis was performed using translation devices developed with the aid of concepts from LCT.

Chapter 3: Methodology

The previous chapter established the need for a knowledge-intensive approach informed by Legitimation Code Theory (LCT) to examine the underlying knowledge structures of journal articles in the field of Scholarship of Teaching and Learning (SoTL) in higher education, to provide valuable insights to inform the enculturation of new scholars. The overall goal of this chapter is to describe and justify how the present study is designed and developed to address the research exigency. The key argument is that a qualitative social realist approach to studying the content of SoTL journal articles and analysing the underlying knowledge structures with the aid of concepts from LCT is an effective way to meet the research exigency.

In Section 3.1, I argue that a qualitative research approach combined with a social realist paradigm provides the depth of treatment that this study requires, and recognises the influence that knowledge has on the enculturation of new scholars. In Section 3.2, I justify my choice of journal articles as a site for exploring legitimation structures and describe how I gathered the data for the study. In Section 3.3, I justify my choice of content analysis as the method of the study. In Section 3.4, I provide a detailed account of how I developed the translation devices or coding instruments using concepts from LCT, and applied them to analyse the underlying knowledge structures of the journal articles. The chapter concludes with a section in which I acknowledge my positionality as a researcher and describe the measures I have taken to increase the robustness of my research (Section 3.5).

3.1 Research approach and research paradigm

This research follows a qualitative approach and a social realist paradigm as it seeks to address the central concern of revealing the underlying organising principles of international, peer-reviewed journal articles in the Scholarship of Teaching and Learning (SoTL). It adopts a qualitative and non-interactive approach that uses unobtrusive methods (i.e., content analysis) to describe knowledge/knower structures and meaning dependencies that underpin

published research in the field. It also utilises concepts from Legitimation Code Theory (LCT) which is influenced by the social realist school of thought to inductively build a depth of understanding about the nature of knowledge that is validated as scholarship by the gatekeepers of SoTL journals.

A qualitative research approach is appropriate for this study's descriptive purposes and its concerns with the depth of meaning and understanding (Leavy, 2022). The primary purpose of the study is to describe the nature of knowledge that is validated as scholarship that has successfully gone through peer reviews and resulted in publication. The study's concerns with depth are justified by, (i) its interests in the tacit aspects of knowledge in the form of the journal articles' underlying structures and meaning relations; and (ii) its detailed examination of a relatively small sample of 93 journal articles.

A social realist epistemology aligns well with this study's interest in knowledge as social realism positions knowledge as an object of inquiry in its own right (Maton, 2014). Moreover, it highlights the need in educational research to explore how knowledges come to be legitimated in particular disciplinary contexts. According to Maton and Moore (2009), social realism "recognises, *contra* positivism, the inescapably social character of knowledge but, contra constructivism, does not take this to inevitably entail relativism" (p.2). Some researchers (e.g., Young, 2007) have even regarded social realism as superseding constructivism by recognising that some forms of knowledge have greater legitimacy than others. An assumption in this study is that published scholarship that has secured the validation of the gatekeepers (e.g., peer reviewers and editors) of SoTL journals constitutes a form of powerful knowledge, which, if seen through, assimilated and appropriated, confers some power on prospective authors to get published. This assumption that knowledge has the potential to confer legitimacy on knowers is backed by a key premise in social realism that knowledge has 'real' effects beyond being socially created.

3.2 Sample

In this section, I argue the choice of journal articles as a valuable site of enquiry for understanding legitimation structures in SoTL, and describe how I gathered the articles for this study. I also discuss the inclusion and exclusion criteria for the articles and journals.

As the focus of this study is to uncover the knowledge/knower and meaning dependency structures that underlie published journal articles in the field of SoTL, I undertook a content analysis of journal articles published in four SoTL journals in a particular year, that is 2019. This year was chosen as it was closest to the time of data collection of this study, and carried all issues of the journals in a year. A single year of articles was considered apt for achieving a reasonable balance between achieving a sufficient sample size for qualitative research to have some validity without incurring a volume of data too overwhelming as to inhibit meaningful and timely qualitative analysis (Boddy, 2016).

Journal articles were chosen as the site for exploring and excavating the legitimation structures of knowledge for two reasons: first, they support a social realist lens of knowledge by recognising both the fact that knowledge is socially constructed through collaboration between journal authors, peer reviewers, and editors (Bedeian, 2004; Hyland, 2000; Myers, 1990), and that knowledge has real effects beyond itself, for every successfully published article reinforces the tacit rules of the game that led to its publication, and provides a basis for future articles to achieve successful publication (Giddens, 1984). As Bedeian (2004) notes, "the published version of a manuscript is almost inevitably a compromise between what its authors intended to say and the mandates of an editor and a set of referees" (p.199), and hence a consequence of the negotiation of how knowledge claims are presented and validated. The 'real' effects of knowledge is well-articulated by Giddens (1984) who notes that textualising a knowledge claim requires drawing upon a set of mostly tacit epistemic and semantic rules, and the instantiation of these rules in a knowledge claim reproduces them, reinforcing them and making them further available. Second, journal articles

represent a high stakes form of knowledge known as research texts through which scholars become known by and through their writings, and acquire membership of the field (Kamler & Thomson, 2014). For this reason, bringing into view the underlying structures of published texts aids new scholars' acquisition of powerful knowledge for accessing the field. I therefore chose journal articles as my data source because they have successfully undergone a robust peer review process that includes desk reviews and double-blind reviews by journal editors and appointed peer reviewers respectively, and thus represent a form of legitimated SoTL knowledge that could inform the enculturation of SoTL scholars.

The corpus for this study comprises 93 journal articles in total. All articles published in all issues of the journals in the selected year were included, with the exception of editorial introductions that prefaced each issue. The reason for this is to guard against privileging the norms and values of 'traditional' empirical research so that a more unbiased and representative picture of legitimation structures in journal articles in the current state of the field could be obtained. Included articles comprised (research) articles, reflective essays, case studies, and quick hits that make a brief contribution describing an educational innovation. As broadly defined by the journals' submission guidelines, articles are data-driven studies; reflective essays are philosophical pieces that challenge practice, encourage experimentation or draw novel conclusions; case studies illustrate SoTL and its applications by focusing on intense analyses of specific teaching problems that led to solutions; and quick hits are shorter contributions that focus on describing innovative teaching practices or an innovative use of a teaching or learning tool. In the data set, full-length articles may be up to 8000 words, whereas shorter contributions may be no more than 1500 words. Table 1 sets out the breakdown of this corpus by journal names, article types, and the number of articles that were analysed.

Table 1

Journal Names, Article Types, and Number of Articles That Were Analysed

	Articles	Reflective essays	Case studies	Quick hits	Total number of articles
International journal of the scholarship of teaching and learning	21	2			23
Journal of the scholarship of teaching and learning	16	2	3	6	27
Teaching and learning inquiry	27				27
Asian journal of the scholarship of teaching and learning	11	5			16
Totals	75	9	3	6	93

The journal articles were taken from four journals, namely the *International Journal of the Scholarship of Teaching and Learning* (IJSoTL) published by Georgia Southern University, *Journal of the Scholarship of Teaching and Learning* (JoSoTL) published by Indiana University, *Teaching & Learning Inquiry* (TLI) published by the University of Calgary, and the *Asian Journal of the Scholarship of Teaching and Learning* (AJSoTL) published by the National University of Singapore. The first three journals were selected based on Tight's (2018) recognition of their prominence and their being international fora for SoTL. I added the fourth (i.e. AJSoTL) to the list to address Chng and Looker's (2013) critique that dominant scholarship in SoTL has remained largely Western in orientation, so that a more holistic picture of SoTL knowledge may be constructed in this study to support a future of SoTL that is characterised in part by increasingly diverse SoTL identities (Webb, 2020). All four journals are international, double-blind peer-reviewed, and devoted to SoTL in higher

education. Disciplinary SoTL journals (e.g., Scholarship of Teaching and Learning in Psychology) were not chosen as a generalist enculturation of SoTL scholars is of interest to this study.

3.3 Content analysis

In this section I discuss the opportunities and limitations that a content analysis of journal articles presents for bringing into view their underlying legitimation structures. I also consider how content analysis is specifically employed in this study, to manifest latent content such as the valued objects/subjects of knowledge and the relationships between them that were validated in the peer review process.

Content analysis is the chosen method for revealing the underpinning logics of SoTL journal articles. According to Silverman and Patterson (2014), content analysis is the application of qualitative analysis to secondary data sources to examine processes and identity trends. In this study, the target process is how knowledge about teaching and learning come to be legitimated in SoTL journals, and the patterns that the study hopes to show up are the explanations and justifications that establish salient elements of published scholarship in the field. Content analysis has been productively used in higher education research to reveal, for instance, how theories are infrequently developed in empirical research (Ashwin, 2012) and what kinds of knowledge and knowers are validated by thesis examiners as revealed by examiner reports (McKenna, Quinn, & Vorster, 2018).

Latent content analysis (Silverman & Patterson, 2014) is used to uncover the underpinning justificatory and explanatory logics in the journal articles being analysed. Such analysis is often accompanied by interpretive reading, systematic and focused coding, and augmented analyses of contextual or circumstantial information. In this study, the analysis is accomplished through an "interpretive reading of underlying meanings" (p.101) in a systematic categorising process that is focused by concepts from LCT. The empirical analysis is also augmented with additional material from the literature,

information about the journals that is obtained from the journal's official websites, and the researcher's reflective notes. The subjectivity of the researcher and how it is handled in this study will be considered in the concluding section of this chapter.

A possible limitation of content analysis that needs to be acknowledged is that its data comes from secondary sources (i.e., journal articles) and may therefore present an indirect access to the legitimating process of knowledge about teaching and learning in SoTL. However, peer-reviewed published research is one of the most representative forms of SoTL (Kern, Mettetal, Dixson, & Morgan, 2015) and thus carries significant cultural capital to be acquired for SoTL enculturation, the problem that motivated this study. It would then appear that journal articles, albeit a source of secondary data, provide a significant resource for elucidating the ways in which knowledge come to be legitimated in SoTL.

3.4 Data analysis

In this section, I describe the procedures taken to analyse content in the journal articles in three main stages. The preliminary stage involved the identification of four areas of focus for examining the objects/subjects of knowledge and the relationships between them that are emphasised in the articles. The main stage involved identifying and coding these knowledge structures with the aid of LCT concepts. The augmentation stage involved deep-diving into one specific area of focus (namely, the construction of research significance) to examine the relationships between the meanings of research outcomes and their contexts in the articles' claims to contribution.

To excavate the knowledge/knower structures and meaning-dependency structures that underlie published journal articles in SoTL, the analysis of the articles was done in three stages: the preliminary stage, the main stage, and the augmentation stage. In the preliminary stage, I focused on establishing the unit of analysis, that is knowledge claims. This was done by reviewing the literature on writing and publishing SoTL, consulting the peer review criteria

published on the journals' websites, and comparing the literature and criteria with an empirical thematic analysis of the data. The outcome of this comparison was a set of four types of knowledge claims that can be used to examine the target underlying structures in the different types of published journal articles in SoTL identified in this study, namely research articles, reflective essays, case studies and quick hits. These are knowledge claims about the research problem, theoretical foundation, methodological rigour, and significant contribution. The first three types are in line with Miller-Young and Yeo's (2015) claim that all forms of research comprise these elements (even though their expression may differ). I added the fourth type after consulting the peer review criteria and studying the data. Claims about significant contribution are also observed in heuristic frameworks (e.g., guiding questions) across a range of SoTL genres (Healey, Matthews, & Cook-Sather, 2019). These heuristics urge writers to consider how their articles expand an ongoing SoTL conversation, provide new insights, make a difference for others, and so on. The preliminary stage of analysis thus yielded a set of four knowledge claims to which the coding categories would be assigned in subsequent stages.

The main stage of analysis focused on the knowledge/knower structures that constitute the basis of achievement (in this case, successful peer-reviewed publication) underlying SoTL journal articles. These structures or organising principles are visualised using the concepts of Epistemic Relations (ER) and Social Relations (SR) from the Specialisation dimension of Legitimation Code Theory (LCT) (Maton, 2014). Simply put, ER foregrounds the objects of knowledge (e.g., theories, concepts, principles and procedures) whereas SR foregrounds the attributes of knowers (e.g., gaze or disposition) in the legitimation of SoTL journal articles. Four coding categories were developed for each concept (i.e. ER++, ER+, ER-, ER-- and SR++, SR+. SR-, SR--) to represent the extent to which epistemic and social relations were foregrounded in the justification and explanation of the knowledge claims.

How the coding categories translated into empirical observations was set out in a translation device (Maton & Chen, 2016) or external language of description (Ashwin, 2012) for each of the concepts, ER and SR. The translation devices

were developed through an "iterative process of examining the articles and developing the system of categorisation" (Ashwin, 2012, p.945). They described what would constitute each of the categories to be assigned to the knowledge claims. Following McKenna, Quinn, and Vorster (2018), Bernstein's (2000) notions of classification and framing were used to map the relative strengths and weaknesses of both ER and SR. Here, classification relates to the extent to which a knowledge claim is bounded in relation to other knowledge claims, and framing refers to the extent to which the internal structures of a knowledge claim are strongly circumscribed.

Apart from being assigned the coding categories, knowledge claims were also assigned a numerical value of 1 and 2 for ER+/SR+ and ER++/SR++ respectively, and a value of -1 and -2 for ER-/SR- and ER--/SR—respectively. These values signify the magnitude of the strength of epistemic and social relations: the larger the numerical value, the stronger the magnitude of strength or weakness in the relations. A positive value indicates a 'strong' strength, whereas a negative value indicates a 'weak' strength. The values are not commonly a part of traditional specialisation analysis following the LCT paradigm. However, they have been added in this study to allow for comparisons of relative strengths and weaknesses in epistemic and social relations between the different areas of focus. In other words, these numerical values were assigned simply for the purpose of summarising the results for comparisons to be made and to manifest the dominant specialisation code that is privileged by SoTL journal articles. These values therefore do not undermine the study's qualitative approach to data analysis.

To facilitate the iterative process of examining the articles and developing the system of categorisation, I wrote analytical memos to maintain "an internal record of a researcher's ideas about coding categories and… emerging theories" (Silverman & Patterson, 2014, p.36) about the substance or manner of the knowledge claims, such as what research objects were claimed and how theory was used in the articles. In writing memos about the use of theory, I also drew on Ashwin's (2012) categorisations of the ways in which 'theory' is used to conceptualise the research object in journal articles in Higher Education. This

move is in line with Silverman and Patterson's (2014) argument that data examined with content analysis is augmented with additional material. In writing the memos, salience rather than saturation was of primary interest. All in all, writing analytical memos helped me to approach ER and SR as "sensitising concepts that provide a sense of direction to look along" (Ashwin, 2022, p.10) rather than definitively (Cousin, 2008). It also allowed me to keep an open mind and be alert to the knowledge/knower structures that are actually contained in SoTL journal articles. Table 2 and Table 3 set out the translation devices that were developed for ER and SR respectively.

Table 2

Coding Scheme Used in Epistemic Relations Analysis

Type of knowledge claim	Code		Description	Example from analytic memos	Example quote from data
Constructing the research problem	ER++	Strengthening epistemic relations ^ ^	The research object is clearly defined and relevantly defended.	The notion of research paradigms is defined and illustrated; the motivation of researching it is explained; the controversy surrounding it is outlined.	"The purpose of this study was to examine how authors published in Teaching & Learning Inquiry in 2018 cited literature. Specifically, we wanted to know the following: 1) What journals are most frequently cited in the sample? 2) How are references used in the text of the articles? That is, what are the frequency of citations, location of citations within the manuscript, and type of

citations? This topic is important because it describes current conventions of writing within this journal, which is useful for newcomers, reviewers, and editors in the field to know, and it provides a framework that authors can use to reflect on their own citation practices" (Cappello & Miller-Young, 2020).

ER+		The research object is clearly defined.	Game-based learning/ motivational strategies/ intercultural competence, etc.
v			
v			
ER-	Weakening epistemic relations	The research object is not clearly defined.	The research object seems to be Gen Z? Generational divides? Student engagement?

	ER--		The research object is not clearly defined; it is also not relevantly defended.	Sharing thoughts, ideas, feelings experienced in a workshop using creative writing.	
Constructing the theoretical foundation	ER++	Strengthening epistemic relations ^ ^	The theoretical framework is clearly defined and relevantly defended.	Theory used to arrive at a clear position taken on how the research object was conceptualised.	"Several frameworks of student engagement exist (e.g., Appleton et al., 2008; Fredericks et al., 2004). Appleton et al.'s (2008) model consists of academic, behavioral, cognitive, and psychological engagement. Operationalising academic engagement as its own category would downplay the complex processes students engage in during academic tasks, indicating

behavioral, cognitive, and psychological processes are not used during academic engagement. Therefore, this study uses Fredricks et al. (2004) model that defines three dimensions of student engagement: behavioral, emotional, and cognitive. Reeve (2013) additionally suggests agentic engagement should be added to form a four-factor model of student engagement. These four factors provide a holistic approach and attempt to capture the myriad processes involved in

					learning in university" (Davis et al., 2020).
	ER+		The theoretical framework is clearly defined.	Use of literature without leading to a position being set out.	
	ER-		The theoretical framework is not clearly defined.		
	ER--	v	The theoretical framework is not clearly defined; it is also not relevantly defended.		
		v			
		Weakening epistemic relations			
Constructing methodological rigour	ER++		The research design is clearly defined	Quantitative approach; survey strategy; discusses techniques,	"To better understand students' perceptions of our interventions, we conducted

		Strengthening epistemic relations	and relevantly defended.	procedures, and quality of the research.	surveys and interviews. Guided by the literature on interdisciplinary learning theory and blended learning, we designed both the survey and interview guide ourselves. The survey and interview guide included questions about the effectiveness of the blended learning environment, instructor feedback, peer feedback, and the interdisciplinary framework in promoting interdisciplinarity. The survey contained a mix of quantitative and qualitative questions, and the interview guide comprised open-
		^			
		^			

			ended questions... For the survey data, we tabulated the results and calculated the percentage of responses for each choice. Notes taken during the interview were analysed for common themes and were compared with the survey data to reveal any correlations" (Rashid & Lim, 2020).
ER+	The research design is clearly defined.	Mixed methods survey research with 'textbook' account of action research.	
ER-	The research design is not clearly defined.	Implies narrative inquiry but expounds on a critical decolonial approach and stance.	

	ER--	v v Weakening epistemic relations	The research design is not clearly defined; it is also not relevantly defended.	Implies narrative inquiry; outlines how narratives were constructed; and previews themes that will be discussed.
Constructing the significance of the research	ER++	Strengthening epistemic relations ^ ^	The value of the research consequences is clearly stated and relevantly defended.	Discusses implications and recommendations for institutional improvement and contributions to the literature.
	ER+		The value of the research consequences is clearly stated.	Claims greater nuance than in previous literature/ points out pedagogical implications, etc.

ER-		The value of the research consequences is not clearly stated.	Implied appreciation of the (SoTL) project or activity.
ER--	v v Weakening epistemic relations	The value of the research consequences is not clearly stated; it is also not relevantly defended.	Descriptive/ hortatory interpretations.

Table 3

Coding Scheme Used in Social Relations Analysis

Type of knowledge claim	Code		Description	Example from analytic memos	Example quote from data
Constructing the research problem	SR++	Strengthening social relations ^ ^	The researcher's perspective is presented to contextualise the research object; and the knowledge of other knowers is integrated with the researcher's perspective.	Researcher explains the motivation of the paper as arising from a conference keynote and brings in other theorists to justify stance and approach.	

SR+	The researcher's perspective is presented to contextualise the research object.	Researchers' perspective is that of educators of an introductory accounting course.
SR-	Different knowers are cited to contextualise the research object.	Different knowers are grouped to establish contrast between traditional and active learning spaces.
SR--	Different knowers are cited to contextualise the research object; and the knowledge of different	Different knowers are cited to support various stages of rubric development but no argument is forthcoming about the research questions'

v

			knowers is not integrated to support coherent argument.	principal concern on psychometric validity.
		v Weakening social relations		
Constructing the theoretical foundation	SR++	Strengthening social relations ^ ^	A dominant stance on the theoretical framework is sustained.	
	SR+		A dominant stance on the theoretical framework is visible.	
	SR-		Different knowers are cited to justify the	Cites different authors to justify authentic

			theoretical framework.	learning; implicitly adopts one approach.	
	SR--	v v Weakening social relations	Different knowers are cited perfunctorily to justify the theoretical framework.	Cites different authors of doctoral curricular reform examples without any visible stance.	
Constructing methodological rigour	SR++	Strengthening social relations ^ ^	A dominant stance on the research design is sustained.		
	SR+		A dominant stance on the research		"As a child, my favorite activity was playing school. I assumed the role of my favorite teachers, mimicking their teaching strategies and

design is
visible.

pretending that all of my students were engaged in the lesson. As a pre-service teacher, I arrived early to my first field experience placement - I spent hours preparing my lesson, but as I walked nervously into the classroom I realised that my students didn't resemble the attentive pretend classes that I taught as a child… Since it took me several years to recognise that I was operating under a narrow view of teaching, I have always wanted to closely investigate future educators as they encounter "real-world" teaching

			experiences for the first time… During my first year… Throughout my second year… At the close of the year, I decided to empirically investigate what characterised these highly reflective students, and thus, the current study was born" (Catalana, 2020).
SR-		Different knowers are cited to justify the research design.	Acknowledged Pintrich et al (1991) in explaining the measures of self-regulated learning.
SR--		Different knowers are cited perfunctorily to	Acknowledged self and other authors in describing procedure,

v

68

		v	justify the	subjects and settings
		Weakening social relations	research design.	of measuring competence in research classes.
Constructing the significance of the research	SR++	Strengthening social relations ^ ^	The beneficiaries of the research consequences are identified; and their perspectives drive the evaluation of research consequences.	Lecturers and module coordinators need to create opportunities for the development of graduate teaching assistants (GTAs); more holistic and concerted efforts are needed.
	SR+		The beneficiaries of the research consequences are identified.	The result may encourage more educators involved in teaching …

			to adopt educational group games.
SR-		Different knowers are cited in evaluating the research consequences.	Mayer (2009) and Plass and Jones (2005) were used to justify the benefits and potential of a multimedia vocabulary learning tool.
SR--	v v Weakening social relations	Different knowers are cited perfunctorily in evaluating the research consequences.	Acknowledged multiple other authors in discussing achievements of graduate education reform.

The augmentation stage of analysis involved subjecting a specific type of knowledge claims to further analysis using the concept of Semantic Gravity (SG) from the Semantics dimension of LCT. Here, knowledge claims about significant contribution were examined with a focus on the meanings of significance and their embeddedness in context. The choice to augment the previous analysis with an examination of SG is line with McKenna, Quinn, and Vorster's (2008) move to "add analytical depth" (p.583) to their analysis of Specialisation in PhD examination reports. However, unlike their study, I have excluded another concept from the Semantics dimension, namely Semantic Density (SD), which concerns the extent to which meanings are condensed within disciplinary terminology as disciplinary SoTL journals were excluded from my data sources. The decision to zero in on knowledge claims about significant contribution was guided by what seemed to be an unexpected finding from the analysis of ER in the previous stage, namely that weaker ER was enacted in this type of knowledge claims compared to the other types.

Similar to the previous stage, four coding categories (i.e., SG++, SG+, SG-, and SG--) were developed to capture the degree of abstraction of meanings about the significance of research outcomes, and a translation device was also iteratively developed to facilitate translating between the analytical concept and data. In developing the system of categorisation here, I initially drew on Wilmot's (2020) categories for coding the varying strengths of SG enacted in the discussion chapters of the PhD dissertations she analysed, and then modified her categories to suit the data I was analysing. Analytical memos were also similarly maintained. Table 4 sets out the translation device that was developed for SG.

Table 4

Coding Scheme Used in Semantic Gravity Analysis

	Code	Explanation	Example from analytic memos	Example quote from data
Strengthening semantic gravity	SG++	Knowledge is concrete and dependent on its context for meaning.	Mostly quotations of raw data; paraphrased data with limited commentary.	
^	SG+	Knowledge is relatively context-dependent.	Summarising descriptions of data.	
^	SG-	Knowledge is relatively context-independent.	Generalisations beyond data to re-conceptualise research object (e.g., three main characteristics of successful mentoring relationships).	
v v Weakening semantic gravity	SG--	Knowledge is abstract and generalisable.	Theoretical interpretations of data; theoretical coding of interpretations; explores the practical or wider meanings of outcomes beyond the study's context.	"These results contribute to the literature in several important ways. First, the positive course impacts on diverse student groups identified in this study advanced the scarce and not so recent studies that identified First-

Year Seminar (FYS) as beneficial for the retention of African-American students (Fidler & Godwin, 1994), adjustment of international students (Andrade, 2006), and persistence of Latino/a students (Barnes, 2012). Advancing this knowledge further, the displayed findings indicated that, for international students enrolled in the seminar, participation promoted the improvement in learning attitudes and behaviors for all 10 factors critical for their academic success. At the same time, this research documented the seminar benefits for two student populations that have not yet been examined in the scholarship

on FYS courses – out-of-state students and teacher pre-professionals. Thus, the findings indicate that institutions looking to support the development of students from these groups can effectively utilise FYS courses for attaining that goal" (Krsmanovic, Cox, & Johnson, 2020).

3.5 Statement of positionality

Before presenting the findings in the next chapter, and in the spirit of reflexivity, I acknowledge my standpoint as a researcher of SoTL seeking to categorise SoTL research. I have some experience co-authoring two journal articles, one in the *International Journal for the Scholarship of Teaching and Learning* (which was included in this study), and another in the *Journal on Excellence in College Teaching*. As described in Section 1.3 of Chapter 1, I also have an interest in helping colleagues to publish, as part of my work as an academic developer. I therefore acknowledge that my positionality may influence this project to some extent.

However, it is also worthy to note that before I became a SoTL researcher, I was a researcher of applied linguistics specialising in academic written discourse and its teaching. At the time of this study, I was also teaching interdisciplinary research communication to early-career postgraduate students. It was therefore with the benefit of a wider perspective of the epistemic logics of a range of disciplines that I was coming into SoTL research. This wider perspective helped me to be open to what the SoTL journal articles had to tell me in terms of the knowledge structures they valued. To avoid speaking for the data, I also followed the advice of Silverman and Patterson (2014) to augment my content analysis with additional material, in this case the analytic memos as described in Section 3.4.

In order to safeguard the robustness of data analysis in this study, each translation device was applied to a pilot analysis of 10% of the corpus. The initial analyses were interrogated and deliberated upon with the help of a senior and more experienced colleague (i.e. my PhD supervisor). This involved discussing the ways in which we were applying the translation devices to ensure that we were satisfied that we were "analysing [the articles] in congruent ways" (Ashwin & Smith, 2015, p.1011) before proceeding. From this deliberation, I then refined the translation devices to guide my analysis of the rest of the articles.

3.6 Conclusion

This chapter has presented the methodology and method of a study of the underlying knowledge structures of 93 journal articles published in four international, peer-reviewed journals in the field of SoTL. It has argued the suitability of a qualitative research approach for accessing the meanings behind written texts and constructing an in-depth understanding of the desired knowledge structures. It has also argued the suitability of a social realist epistemology for foregrounding knowledge as a valuable research object in its own right, and acknowledging that knowledge has 'real' effects for the enculturation of new SoTL scholars. Additionally, it has explained why content analysis makes a suitable method for manifesting the target structures as well as its limitations. It has also provided a detailed account of the samples and procedures used to analyse the structures.

The content analysis generated epistemic and semantic relations that underlay the journal articles in four areas of knowledge construction, namely the research problem, theoretical foundation, methodological rigour, and research significance. These findings are presented in the next chapter.

Chapter 4: Findings

This study set out to investigate the knowledge/knower and meaning-dependency structures that underlie published journal articles in the field of Scholarship of Teaching and Learning (SoTL). Specifically, it aimed to elicit answers to the following research questions: 1) What objects/subjects of knowledge and the relationships between them are emphasised in internationally published journal articles in SoTL? 2) What relationships between the meanings of research outcomes and their contexts are emphasised in the articles' claims of contribution to the field?

The previous chapter showed how a content analysis of a total of 93 journal articles from four international peer-reviewed journals in the field was undertaken with the aid of concepts from Legitimation Code Theory (LCT), to bring into view the knowledge/knower and meaning-dependency structures that underlie the articles. The overall goal of this chapter is to present the findings that were generated through the process of analysis by me as the researcher. The key findings are: 1) the journal articles as a whole displayed a dominant knowledge code that emphasised epistemological objects over subjects; 2) research objects in the articles were specific, but they were less structured when viewed from the perspective of the field; 3) theories were relatively loosely connected to the research objects; 4) qualitative approaches, questionnaires and surveys preponderated the articles' methodologies; 5) research outcomes often took a very positive, self-congratulatory position and were insufficiently critically evaluated; and 6) the significance of research outcomes depended relatively heavily on the contexts of enquiry.

This chapter is organised as follows: in Sections 4.1, I present the findings from the analysis of epistemic relations to show that strong epistemic relations were observed in the four key areas of knowledge construction, namely the construction of research objects, theoretical foundation, methodological rigour, and significance of research outcomes. The relative strengths of epistemic relations in the four areas, and how the epistemic objects in each area are 'valued' and emphasised are presented. In Section 4.2, I present the findings

from the analysis of social relations to show that weak social relations were observed in the four key areas. The relative strengths of social relations in the four areas are similarly presented. In Section 4.3, I combine the findings from the first two sections to address the first research question. It is shown that the journal articles as a whole displayed a dominant knowledge code, thus suggesting that the objects of knowledge, namely research objects, theories, research approaches and methods, and research outcomes are emphasised over the subjects of knowledge in the articles. Finally, in Section 4.4 I present the findings from the analysis of semantic gravity to address the second research question. I show that in the articles' construction of research significance, the meanings of research outcomes were strongly tied to the contexts of enquiry, thus rendering the outcomes difficult to generalise.

## 4.1 Strength of epistemic relations

A relatively strong emphasis was placed on the objects of knowledge, namely the research objects, theories, methods, and outcomes, in the journal authors' knowledge construction for successful publication. This was evidenced by a magnitude of the strength of epistemic relations (ER) that averaged a mean value of 0.83 across all four key areas of knowledge construction, namely the research problem, theoretical foundation, methodological rigour, and research significance. (Recall that epistemic relations that were coded ER+ and ER++ were assigned a strength value of 1 and 2 respectively; those coded ER- and ER-- were assigned a weakness value of 1 and 2 respectively). In other words, in a range from -2 to +2, the mean average strength of epistemic relations was valued at 0.83 across the four components of knowledge-building. ER codes for the extent to which the objects of knowledge that journal authors are able to claim, and the conditions under which they are allowed to make those claims, are circumscribed. This means that the objects and the surrounding knowledge claims are specific, well-defined, and amount to well-justified arguments. Where these are strongly circumscribed, the ER is said to be relatively strong (ER+). The mean average strength of 0.83 indicates that overall, epistemic relations

across all four aspects of knowledge construction in the journal articles are approaching a magnitude of 1, and thus relatively strong.

Figure 2 shows a comparison of the relative strengths of epistemic relations in the four areas. The magnitude of strength in each area was found to be 0.86 (construction of research problem), 0.97 (construction of theoretical foundation), 0.91 (construction of methodological rigour), and 0.59 (construction of research significance) respectively. The relative location of these values along the strength/weakness continuum is approximately pinned by the dots in the figure. This comparison is significant because it shows that even though epistemic relations were on the whole relatively strong in the journal articles, they were not uniformly strong across all aspects of knowledge construction. Particularly worthy of note is how epistemic relations in the articles' construction of research significance appeared to be the 'weakest' among the four areas. This may suggest that research outcomes in the articles were inadequately justified, potentially lending credence to an impression among some journal peer reviewers that SoTL reflections are 'inconclusive'. However, as the finding in this study suggests, that impression may not be true of reflective pieces alone.

Figure 2

Strength of Epistemic Relations in Constructing Different Types of Knowledge Claims
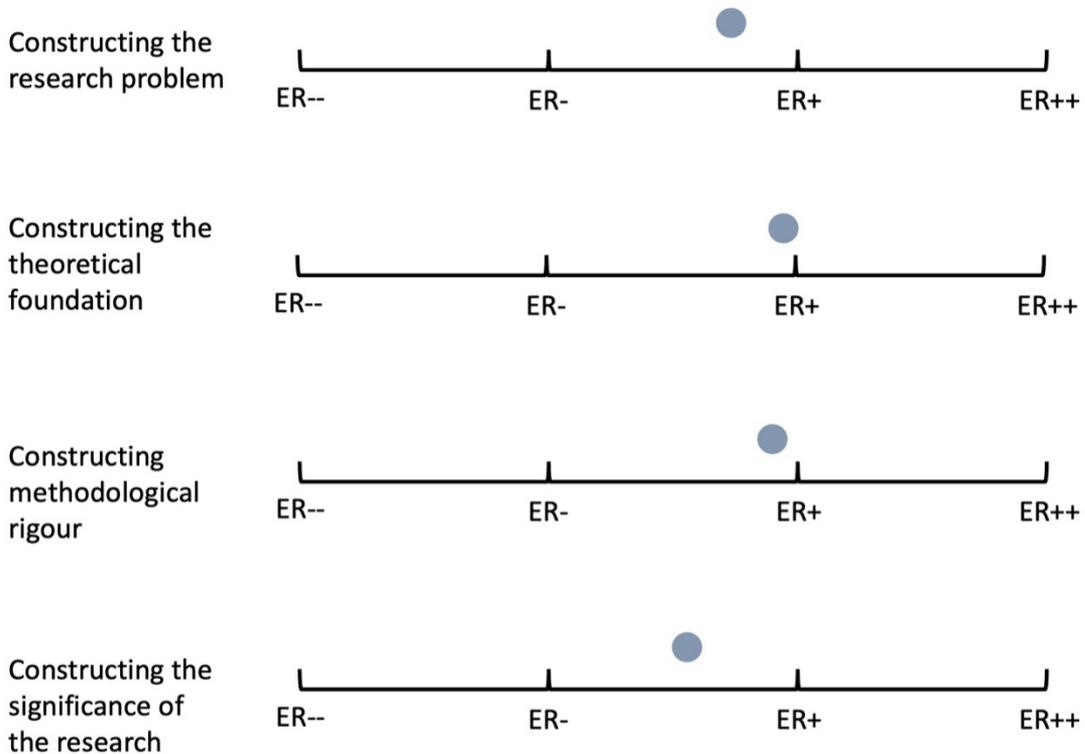
4.1.1 What research objects were valued

In the specific area of constructing the research problem, the analysis of epistemic relations revealed a wide range of research objects that were grouped into six categories: teaching, learning, assessment, curriculum, educational development, and the scholarship of teaching and learning. Table 5 shows a detailed breakdown of these categories into the specific research objects, and the percentage of journal articles that covered research objects in each of the six categories.

Table 5

Categories of Research Objects in SoTL Journal Articles

Category	Research Objects	*n*	%
Teaching	Active instruction	27	29
	Affective pedagogy		
	Block teaching		
	Context-based teaching		
	Critical thinking pedagogy		
	Educational games		
	Engaged teaching		
	Facilitation		
	Flipped classes		
	Incorporating social justice		
	Inter-teaching		
	Live composite video lectures		
	Media pedagogy		
	Motivation strategies		
	Pharmacy tutorials		
	Teaching controversial topics		
	Team formation methods		

	Threshold concepts		
	Video-based pedagogies		
	Wicked problems		
Learning	Active learning	22	24
	Authentic learning		
	Field-based learning		
	Game-based learning		
	Global learning		
	Immersive (deep) learning		
	Inquiry-based learning		
	Interdisciplinary learning		
	Jigsaw cooperative learning		
	Misconceptions		
	Multimedia learning		
	Peer feedback		
	Project-based learning		
	Self-regulated learning		
	Student success		
	Team-based inquiry learning		
	Transfer of learning		

	Visual learning		
Assessment	Diversity-focused assignments	7	8
	Fieldwork		
	Grading fairness		
	Mastery-based testing		
	Research competence		
	Rubric validation		
	Video-based feedback		
Curriculum	Critical thinking skills	13	14
	Disciplinary literacy		
	First-year seminar		
	HIV prevention web-courses		
	Information literacy		
	Intercultural competence		
	Massive Open Online Courses (MOOCs)		
	Science literacy		
	Undergraduate research		
Educational development	Academic professional development	17	18
	Collaborative learning scripts		

	Education-focused employment tracks		
	Faculty development program		
	Faculty diversity training		
	Faculty learning communities		
	Intercultural competence		
	International teaching assistants		
	Leadership development		
	Reflective practice		
	Small significant networks		
	Student feedback		
	Student-faculty partnerships		
Scholarship of teaching and learning	Citation practices	7	8
	Research paradigms		
	SoTL impact		
	The meanings of SoTL		

As can be seen from Table 5, research objects on teaching and learning were written about and discussed in about half the journal articles analysed (53%), suggesting that research objects on teaching and learning were emphasised in the journal articles. There were slightly more research objects on teaching (29%) than learning (24%). Examples of research objects on teaching include flipped classes, motivation strategies, team formation methods, and video-

84

based pedagogies. Examples of research objects on learning include active learning, field-based learning, interdisciplinary learning, inquiry-based learning, and project-based learning. Admittedly, an intricate interplay exists between the domains of teaching and learning, and thus it was not always straightforward to differentiate research objects on teaching and learning. Here, when in doubt, the differentiation was attempted by examining the central research questions, and then cross-checking such information with the keywords that accompanied the abstract. The identification of specific research objects suggests that they were well-defined and by their definition, limited or structured the articles, confining the enquiry to the parameters circumscribed by the research objects. Although the identified research objects were focused and specific in the individual articles, the research objects of the field collectively do point to a relatively large diversity that may limit the coherence of the field and make it challenging for authors to contribute to cumulative knowledge-building.

Apart from the identification of 'valued' research objects, observations were also made in *how* the research objects were valued in articles that had very strong epistemic relations in their construction of the research problem. In these articles, knowledge claims surrounding the research objects were observed to comprise propositions about motivation, exigency, purpose, importance, and benefits. These propositions are important for 'defining' the specific research objects by locating them in a historical context or context of value. For instance, in example [1] below, the author contextualises her enquiry on the specific research object of reflective practice by describing what motivated her study, namely her frustration as a teacher-educator with the gap between educational theory and practice. In example [2], the author legitimises her enquiry on writing and video feedback by interpreting her research object as valuable and significant for filling a gap, contributing to the literature, and promising answers to her research questions:

> [1] "This study emerged from a frustration which, unfortunately, plagues many teacher-educators: the clear gap between educational theory and practice. After reading countless reflection papers that were inundated with trite and cliché statements, I was determined to critically examine

commonalities among advanced reflectors. What are the indicators of impactful reflective practice? And, more importantly, how can these commonalities inform the creation of successful teacher education programs? Such an in-depth analysis of reflection moves beyond the cliché, informing teacher educators how to successfully cultivate reflective practice and equip students to implement change in their future classrooms" (Catalana, 2020).

[2] "[R]esearch has overwhelmingly been conducted on undergraduate students learning in traditional face-to-face classroom settings. Little work has explored writing feedback and asynchronous video feedback in graduate-level coursework or coursework that takes place in hybrid or online settings. There is also a lack of literature exploring student perceptions of feedback on writing related to graduate level research. This study contributes to the literature by exploring student perceptions of writing and video feedback in a hybrid, graduate-level research methods course. This study sought to answer the following questions:

- To what extent do students' perceptions of the feedback they received differ based on the type of feedback they received?
- To what extent did students feel that the feedback they received impacted their growth as writers?" (Marshall, Love, & Scott, 2020)

4.1.2 How theories were used

In the second area of focus, the analysis found 'implicit theory' to be the most common means employed by the journal articles to construct the theoretical foundation of the enquiry. Table 6 shows the different ways of employing theory to construct the theoretical foundation, and the percentage of journal articles that were observed to employ each method. As can be seen from this table, in more than half of the articles (54%) was literature used, in an indirect way, to inform the background of the enquiry without leading to a clear position taken on the research object. For this reason, it was not possible to list the specific

theories (unlike the specific research objects identified in the previous section) that were emphasised in the articles. In 19% of the articles were theories observed to be absent, playing a trivial or insignificant role or employed for purposes other than grounding the enquiry. Together, these observations suggest that there may be some ground for the impression among some critics that SoTL research is 'atheoretical'. However, it may be more accurate to depict the use of theory in SoTL research in terms of how theory is treated and to what ends it is deployed, rather than whether it is used or how much of it is used. Additionally, as will be shown in Section 4.4, the implicit use of theory may contribute in part to the lack of generalisability of research outcomes.

Table 6

Distribution of SoTL Journal Articles by Use of Theory to Conceptualise the Research Object

Category	*n*	%
'Implicit theory' – use of literature without stating a position on research object	50	54
'Multiple theories' – a number of different theories used without a sense of what position was taken in relation to these	10	11
'Position on research object' – clear position taken on how the research object was seen	15	16
Others (i.e. unclear theory or theory was not observed in data analysis)	18	19

Note. The first three categories above are borrowed from a larger study by Ashwin (2012) on the use of theory in journal articles in higher education research.

4.1.3 What research approaches and methods were emphasised

In the third area of focus, the analysis found (purely) qualitative research approaches to be the most common approach to enquiry (Table 7), accounting for more than a third of the journal articles (38%). In 29% of the journal articles, qualitative research approaches were mixed with quantitative ones.

Table 7

Distribution of SoTL Journal Articles by Research Approach

Category	n	%
Quantitative	25	27
Qualitative	35	38
Quantitative + Qualitative	27	29
Others (e.g., unclear, not observed)	6	6

Survey methods comprising questionnaires, surveys, interviews, and focus groups were also found to be the most common method of data collection (Table 8), accounting for 77% of the journal articles. As some studies might collect more than one category of data, the breakdown percentages might not sum up to 100%. In Table 8, the frequency of categories exceeded the sample size of 93 journal articles by 21 counts. Since there was no article that did not collect or analyse some form of data, this suggests that a multi-category data collection occurred in 22% of the articles.

Table 8

Distribution of SoTL Journal Articles by Data Collected

Category	n	%
Documents and literature (e.g., syllabus and task descriptions, observation notes)	9	10
Interviews and focus groups	16	17

Personal narratives	6	6
Questionnaires and surveys	56	60
Student participation and performance (e.g., log data, test and exam scores)	15	16
Student writing and artefacts	12	13

Note. The frequencies do not add up to n=93 as studies may not collect a single type of data.

As can be seen from Tables 7 and 8 above which show the breakdown of percentages of journal articles employing different research approaches and data collection methods, only 29% of the articles drew on more than a single quantitative or qualitative research approach (i.e. adopted a mixed approach) and only about 22% drew on more than a single type of data. These findings suggest that the articles appear to be favourably disposed towards the subjective perspectives and interpretations of relatively small samples of learners, thus contributing to views in the literature of SoTL research being perceived as small-scale, short-term, and local in orientation. As will be shown in Section 4.4, the small-scale orientation that qualitative approaches tend to lend themselves to may contribute in part to the lack of generalisability of research outcomes in the articles. The heavy emphasis on surveying perceptual data such as self-reported outcomes, attitudes, satisfaction, and so on, seems understandable given SoTL's ultimate goal of improving student learning, of which students' perspectives and interpretations (rather than the enquirers') are an important part. However, it may also suggest a need for an expanded methodological repertoire on the part of scholars/authors so that more objective measures of gains in knowledge and skills could be ascertained.

4.1.4 How research outcomes were valued

In the fourth and final area of focus, the analysis showed that positive appreciation of research outcomes was emphasised in the journal articles' construction of research significance, and accounted for more than half (57%)

89

of the articles. This means that research outcomes often took a very positive, self-congratulatory position and that authors failed to sufficiently critique the outcomes or evaluate them critically. For instance, it was frequently observed that many a time, authors would claim an outcome to be 'important' only to justify it by recalling the data or evidence for that outcome, thus intimating that the outcome was important for its own sake, and ultimately failing to examine more carefully the basis of its importance. As the research outcomes were as varied as the research objects, it was not productive to list the outcomes. Instead, the focus of the analysis shifted to how the outcomes were evaluated. Table 9 presents a breakdown of the different ways in which research outcomes were 'valued' in the articles' construction of research significance, and the percentages of articles that employed each method of evaluating research outcomes.

Table 9

Distribution of SoTL Journal Articles by Their Overall Claims of Significance

Category	n	%
Positive appreciation of research outcomes (e.g., importance, inspiration, relevance, usefulness, practicality)	53	57
Agreement with previous studies or practice	8	9
Educational implications (e.g., provocative questions or considerations, suggestions or recommendations for improvement)	19	20
Critical or unique insights (e.g., critical reasons for lack of student engagement in a course)	4	4
Others (e.g., unclear, not observed)	9	10

Research outcomes were observed to be positively appreciated along several possible parameters. These parameters were importance, inspiration,

relevance, usefulness, and practicality, as illustrated in examples [3] – [7] below.

> [3] "These research findings indicate <u>important</u> implications for campus administrators, teaching centre staff and faculty." (Cornejo Happel & Song, 2020)

> [4] "<u>inspired</u> questions that SoTL scholars should consider when conceptualising projects." (Pechenkina, 2020)

> [5] "The lessons learnt from this study are <u>pertinent</u> to educational developers." (Dalgarno et al., 2020)

> [6] "The findings <u>can be used</u> to inform design for professional identity formation and its measurement." (Chin et al., 2020)

> [7] "offer some <u>practical</u> steps that can be taken to facilitate the crossing." (Haigh & Withell, 2020)

In the articles analysed, such claims of positive appreciation might or might not be supported. In cases where some form of explanation or justification was provided, this often came in the form of a summary of relevant findings of the enquiry, which is to be differentiated from implications and insights. Compared to other means of evaluating research outcomes such as through comparison with previous studies or analysing implications or insights, positive appreciation therefore appears to do insufficient justice to the outcomes, and may shortchange the significance of the enquiry. This may have contributed to the impression of SoTL research being often 'inconclusive'. As will be shown in Section 4.4, such an emphasis on positive appreciation may also contribute to the lack of generalisability of research outcomes.

## 4.2 Strength of social relations

A weak emphasis was placed on the subjects of knowledge (i.e. knowers) in the journal authors' knowledge construction for successful publication. This was

evidenced by a magnitude of the strength (in this case, weakness as the value was negative) of social relations (SR) that averaged a mean value of -1.10 across all four key areas of knowledge construction, namely the research problem, theoretical foundation, methodological rigour, and research significance. SR codes for the extent to which the specific attributes of knowers (e.g., authors, other scholars) are foregrounded. Where the SR is weaker, there are relatively few prescriptions about the kind of knower that produces the research. (Recall that social relations that were coded SR+ and SR++ were assigned a strength value of 1 and 2 respectively; those coded SR- and SR-- were assigned a weakness value of 1 and 2 respectively). This indicates that overall, social relations across all four aspects of knowledge construction in the journal articles have exceeded a mean average magnitude of 1, and are thus weak.

Figure 3 shows a comparison of the relative weaknesses of social relations in the four areas. The magnitude of weakness in each area was found to average -1.32 (construction of research problem), -1.34 (construction of theoretical foundation), -1.16 (construction of methodological rigour), and -0.59 (construction of research significance) respectively. The relative location of these values along the strength/weakness continuum is approximately pinned by the dots in the figure. This comparison shows that social relations were consistently weak across the four aspects of knowledge construction, thus suggesting that in SoTL research, it is not who you are but what and how you are enquiring that matters in getting published.

Figure 3

Strength of Social Relations in Constructing Different Types of Knowledge Claims

Constructing the research problem

SR--   SR-   SR+   SR++

Constructing the theoretical foundation

SR--   SR-   SR+   SR++

Constructing methodological rigour

SR--   SR-   SR+   SR++

Constructing the significance of the research

SR--   SR-   SR+   SR++
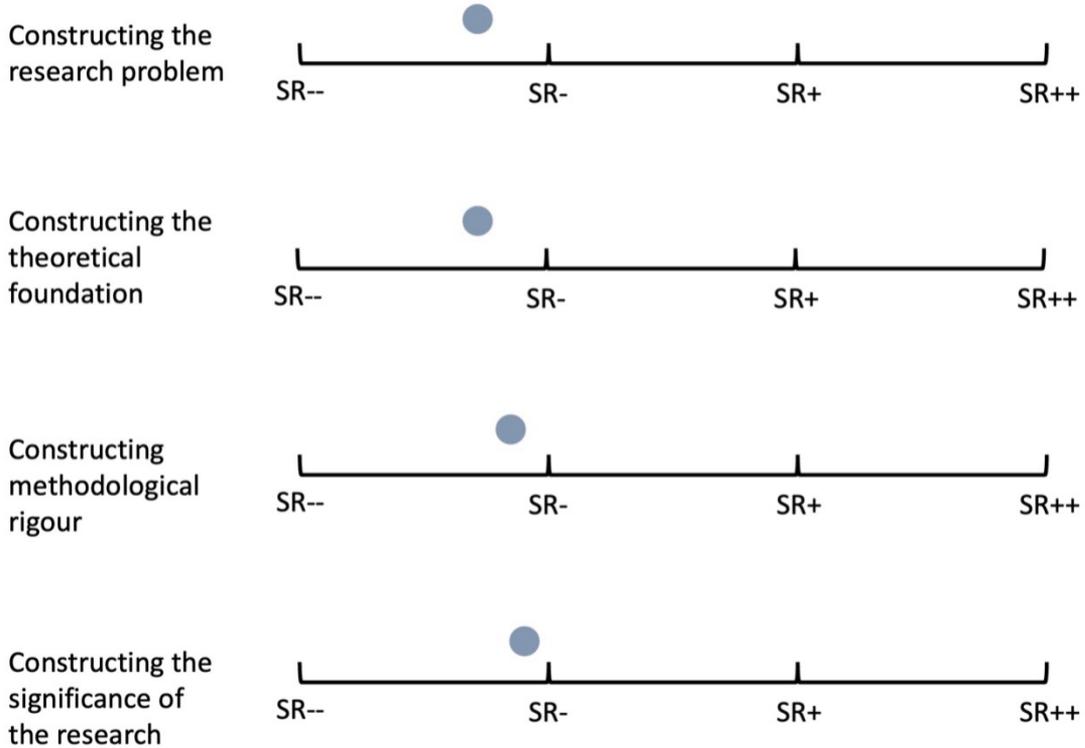
4.3 Dominant specialisation code

The first research question of this study sought to identify and describe the objects/subjects of knowledge that are emphasised in journal articles that are published in international, peer-reviewed journals in the field of SoTL. Integrating the findings from the previous sections, it is possible to plot on a Cartesian plane the strength of epistemic relations against that of social relations, to crack the code of SoTL journal articles or manifest its dominant specialisation code. The resulting plot is shown in Figure 4.

Figure 4

Dominant Specialization Code of SoTL Journal Articles
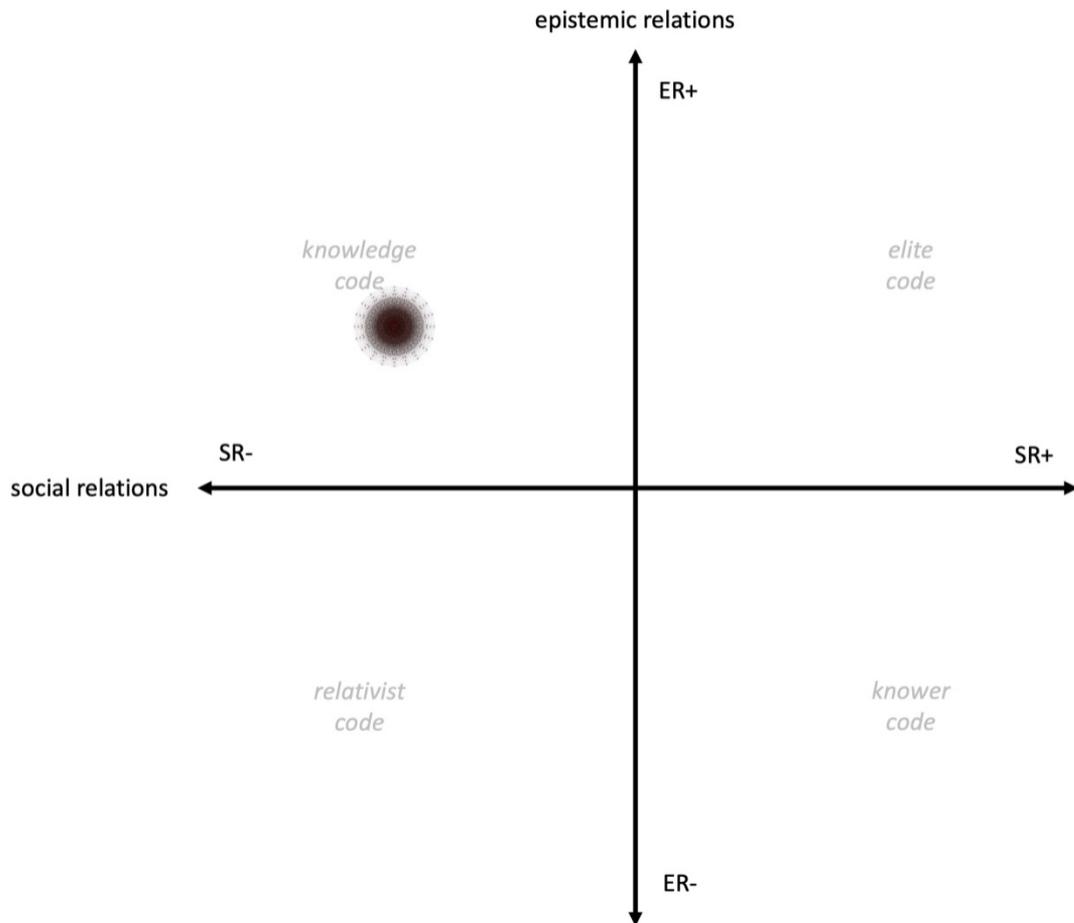
As can be seen from Figure 4, a *knowledge* code has been constructed through the data analysis to be a dominant specialisation code that accounts for the peculiarity of SoTL journal articles. (Recall that four codes are possible under LCT's dimension of Specialisation: a knowledge code in which the emphasis is largely on theoretical, procedural and technical knowledge; a knower code which privileges particular dispositions or attitudes; an elite code where having a particular type of knowledge and being a particular kind of knower are both emphasised; and a relativist code where neither specific knowledge nor specific kinds of knowers is emphasised). This means that the basis of achievement in publishing SoTL research lies in *what* authors know rather than *who* they are. The findings presented thus far have shed light on what such knowledge entails and needs to be shared by reviewers and editors for successful peer review

and subsequent publication to be achieved: 1) specific research objects that are suitably located in historical contexts and contexts of value; 2) using literature to inform the background of the enquiry; 3) gathering perceptual data to understand the perspectives and interpretations of learners; 4) evaluating research outcomes positively to justify the importance, inspirational value, relevance, usefulness, and practicality of the enquiry. While distilling such knowledge into a few 'conditions' of successful publication may to some extent run the risk of oversimplifying what SoTL research is and what authors can do, it can help new authors to visualise the inclinations and proclivities of journals and ease their discursive enculturation into the field.

4.4 Strength of semantic gravity

The second research question of this study focused on the journal articles' claims to contribution in the field. It sought to further probe into the meaning-dependency relations between the significance of research outcomes and the contexts of significance. The concept of semantic gravity (SG) was used to guide the analysis of such meaning contingencies. SG codes for the extent to which abstraction is valued in knowledge claims. The stronger the semantic gravity (SG+, SG++), the more dependent the meaning is on a particular context. Table 10 shows a breakdown of the percentages of articles for each degree of semantic gravity.

Table 10

Distribution of SoTL Journal Articles by Strengths of Semantic Gravity in the Construction of Significance of Research Outcomes

Strength of Semantic Gravity	n	%
SG++: Knowledge is concrete and dependent on its context for meaning	42	45
SG+: Knowledge is relatively context-dependent	27	29
SG-: Knowledge is relatively context-independent	15	16
SG--: Knowledge is abstract and generalisable	9	10

As can be seen from Table 10, the analysis of semantic gravity showed that in 74% of the articles, the research outcomes depended on the context of the enquiry for their importance, relevance, usefulness, and so on. Of these, 45% had research outcomes that depended strongly on the context for significance, and 29% had outcomes that were relatively context-dependent. It is possible that the preferences for implicit theory, qualitative research approaches, and positive appreciation of research outcomes as presented in the previous sections may have contributed to the present finding by making it hard for the outcomes to be evaluated expansively and generalised to a broader context. The strong context-dependence of research significance suggests that the journal articles' contribution to the field were limited to future iterations of a lesson, course, or programme, and little far removed from the concrete particularities that situated the research objects. This finding may lend credence to views in the literature that most SoTL research remains local and short-term in orientation. More interestingly, it offers hope to SoTL authors that they *can* contribute meaningfully to knowledge-building in the field without abstracting or generalising research outcomes into principles, typologies, and revisions to the literature, which was observed in the smaller proportion of articles in this study (26%) that had weaker semantic gravity (SG-, SG--). However, it does raise questions about how concrete and context-dependent outcomes would resonate with an international readership in these journals and how authors should relate to readers from institutional contexts that are substantially different from theirs.

4.5 Conclusion

This chapter has presented the findings that were generated from the analyses of epistemic relations, social relations, and semantic gravity to address two research questions: 1) What objects/subjects of knowledge and the relationships between them are emphasised in internationally published journal articles in SoTL? 2) What relationships between the meanings of research outcomes and their contexts are emphasised in the articles' claims of contribution to the field?

Six key findings were generated through the process of analysis. To address the first research question on the knowledge/knower structures that are validated in SoTL journal articles, it was found that: 1) the journal articles as a whole displayed a dominant knowledge code that emphasised epistemological objects over subjects; 2) research objects in the articles were specific, but they were less structured when viewed from the perspective of the field; 3) theories were relatively loosely connected to the research objects; 4) qualitative approaches, questionnaires and surveys preponderated the articles' methodologies; and 5) positive appreciation was the most common way in which research outcomes justified their significance. To address the second research question on the meaning relations that validated the articles' contribution to the field, it was found that: 6) the significance of research outcomes often depended strongly on the concrete particularities that situated the enquiry.

The next chapter discusses the findings with a view to interrogating critical views on the legitimacy and rigour of the field of SoTL, from an empirical perspective engendered by the findings.

Chapter 5: Discussion

This chapter discusses the findings from the empirical content analysis of internationally published journal articles in the field of Scholarship of Teaching and Learning (SoTL). It will do so by revisiting some of the key issues surrounding the legitimacy of SoTL as a field, that were raised by the literature in Chapter 2. This revisitation will be done from the perspective of the empirical findings obtained in this study. It is expected that the revisitation will renew or revise understanding of the challenges posed to the enculturation of new authors by the complexities of the field, the implications of which will be discussed in the next chapter.

The chapter begins with an introductory discussion on the dominant knowledge code of SoTL journal articles before revisiting the key questions around the legitimacy of SoTL research. In Section 5.1, I argue that evidence from the diverse research objects identified across the four international journals suggests that the field may indeed be too inclusive for its own good. In Section 5.2, I argue that evidence from the articles' use of implicit theory to conceptualise research objects provides only limited support for claims that SoTL research is atheoretical, as theory is used provisionally to provide a sense of direction to develop teaching and improve student learning. In Section 5.3, I argue that evidence from the dominance of qualitative research approaches and survey methods generally counters notions about the lack of methodological rigour in SoTL research, but suggests room for improvement in methodological pluralism and the dialogic expansion of research outcomes. In Section 5.4, I argue that evidence from the positive appreciation and context-dependence of research outcomes provides some ground for the view among some journal peer reviewers that SoTL reflections lack a conclusion, but such semblance of inconclusiveness appears to be applicable to journal articles as a whole.

5.1 The dominant knowledge code of SoTL journal articles

A dominant knowledge code was identified to be principal language of legitimation that validated published journal articles in SoTL. This finding could be viewed as a corollary of SoTL being "now an established feature of higher education research" (Tight, 2019, p.30), which has previously been shown by McKenna, Quinn, and Vorster (2018) as evidencing a dominant knowledge code. What SoTL and higher education research seem to share in general is a great deal of emphasis on the objects of knowledge and scholars' engagement with knowledge. For instance, both fields emphasise research objects surrounding teaching and learning, curriculum and educational development (McKenna, 2014). Both also emphasise the use of theory in various ways to conceptualise the research objects (Ashwin, 2012). However, this study has also suggested finer points on which SoTL authors may emphasise in addition to or somewhat differently from higher education researchers within a shared dominant knowledge code. Examples include the provisional use of theory to stimulate the development of teaching and improvement of student learning, the emphasis on eliciting descriptive and perceptual information on learners' perspectives and interpretations for enhancing the learning experience, and the location of research significance in the concrete particularities situating the research objects for immediate application.

Although SoTL journals have much to share with higher education journals in their categories of research objects (i.e. teaching, learning, educational development, curriculum, and assessment), higher education researchers may undertake SoTL research specifically to generate evidence-based insights into effective course design principles and assessment approaches (Hubball & Clarke, 2010). They may also do so to collaborate with colleagues across disciplines, to 'deprivatise' practice and enhance each other's professional growth through shared enquiry (McKinney, 2010).

While 'implicit' theories are observed in both empirical research articles in higher education journals and journal articles in SoTL, SoTL authors may be 'constrained' in their use of theory due in part to the large variance observed in

the research objects of the field of SoTL. Such latitude may point to a lack of unity in the knowledge of the field, making it challenging for cumulative knowledge-building to occur and coherent theories to develop. For this reason, it seems plausible for SoTL journal articles to employ a constellation of references to literature to contextualise research objects, in lieu of the purposive deployment of theories to conceptualise research objects. The use of implicit theory in SoTL journal articles is supported by the finding of Cappello and Miller-Young (2020)'s study of citation practices in SoTL, that the "theoretical underpinnings [of SoTL work] are often implicit rather than explicit" (p.9). Another reason that may account for SoTL's implicit theories is that "SoTL is not the primary discipline for most SoTL scholars, so the time devoted to learning a field deeply is necessarily devoted to home disciplines" (Chick et el., 2021, p.16), limiting the theoretical savviness that is needed for authors to ground a SoTL enquiry firmly.

One area in which SoTL research appears to differ from higher education research relates to SoTL's location of research significance in concrete, contextual particularities. Unlike higher education research where all significant research contributions contextualise findings in the literature and add coherently to the wider and existing body of knowledge (Creswell, 2005; Gay, Mills, & Airasian, 2006), this did not appear to be a salient preoccupation of the SoTL journal articles analysed in this study, as evidenced by their emphases on the positive appreciation of research outcomes and the strong semantic gravity of their research significance. One possible reason suggested by the methodological emphases generated from the analysis of epistemic relations appears to be a preference for qualitative research approaches, where the emphasis is typically on understanding the complex, nuanced and context-specific aspects of a phenomenon rather than making generalisable claims to a larger population (Lincoln & Cuba, 1985).

5.2 Is SoTL research too inclusive for its own good?

Evidence from the research objects identified in the journal articles from across the four international journals does suggest that the field may be too inclusive

for its own good. The finding that SoTL journal articles legitimated specific objects of knowledge surrounding teaching and learning in the main is not surprising considering that SoTL's primary purpose is to improve teaching and student learning. However, several research objects on educational development, curriculum, and assessment could have found their way equally well into other journals in higher education that are devoted to those fields. The large variance in research objects may be accounted for by the fact that SoTL is now in the fourth wave and securely under the 'big tent' that includes scholars from across many disciplines. Such variance also poses a real threat to SoTL becoming too inclusive and outliving its usefulness (Canning & Masika, 2022) as it suggests an incoherent body of knowledge that raises questions about what it is that unites the field and impedes cumulative knowledge-building in the field. Consequently over time, a tension arises such that new authors may benefit from increased opportunities to get published, but at the same time they may also find it increasingly hard to speak to an increasingly diverse audience and contribute meaningfully to the field.

Combined with the finding that the social characteristics of authors were not emphasised in the journal articles, the large variance in research objects may be viewed as a consequence of the diversity and inclusivity of the SoTL knowledge community. These findings thus provide empirical support for previous claims that SoTL is now "comfortably in the big tent" (Webb, 2020, p.9), embracing a diversity of SoTL scholars from different disciplines, interests, contexts and purposes. As Webb (2020) suggests, the challenges that follow the 'big tent' include sustaining the involvement of SoTL scholars by guiding them through the language and research conventions of SoTL. In this regard, a potential contribution arising from this study's findings may be to suggest how scholars can effectively present their research outcomes in ways that address *both* local concerns *and* wider interests equally.

An interesting question that arises is why articles with research objects on educational development, curriculum, and assessment appeared in SoTL journals instead of other higher education journals devoted to those fields. A related question is why educational developers, for instance, might find SoTL

useful. A possible answer may be that educational development research, which is increasingly becoming more scholarly (Gibbs, 2013), may reinforce a growth mindset and the values of truthfulness, courage and justice that uphold scholarship (Kreber, 2015). For instance, inquiring into the academic identity construction of a group of educators who are located at different points along an education-focused employment track may not reap insights that immediately improve teaching or directly impact student learning, but it emphasises the virtues of "having an inquiry mindset and a dedication to constructing an evidence base to develop knowledge about teaching and learning and to guide future practice" (Brooke at al., 2020, p.9) that constitute the basis of practice in SoTL. Higher education researchers in general may therefore be drawn to SoTL as an evidence-based approach to educational innovation and change that foregrounds the values of growth and continuous improvement.

Apart from specific research objects, the findings also highlighted the role of circumscribing propositions that locate the objects in historical contexts and contexts of value. These claims about the study's motivation, exigency, purpose, benefits and importance add definition (and hence structure) to the research objects for to define is to limit. They may be viewed as essential to the legitimation of the research objects through contextualising and interpreting the research objects: claims of motivation, exigency and purpose locate and focus research objects whereas claims of benefits and importance interpret them. The contextualisation of research objects may be justified by the context-specificity and diverse knowledge community of SoTL: first, SoTL typically enquires into specific classroom practices, examples or initiatives that are "presented as case studies grounded in context-specific detail" (Healey, Matthews, & Cook-Sather, 2019, p.36). Contexts are important for cumulative knowledge building (Maton, 2014), even if an increase in knowledge means authors remaining rooted within their contexts but understanding those specific educational contexts better.

Second, international SoTL journals are read by "a transdisciplinary audience who will not necessarily be familiar with disciplinary practices and the structure of higher education in your country" (Healey, Matthews, & Cook-Sather, 2019, p.41). This means that simply describing the research objects are insufficient to

legitimise them if authors do not interpret knowledge (e.g., as beneficial and important) and avoid assuming that readers will share their interpretations. Contexts of interpretation thus need to be constructed or elaborated for authors to call out significant responses in readers and secure agreement and cooperation for their claims. For new SoTL scholars, this means that they need to know how to value what they know in ways that will be meaningful in a cross-disciplinary context.

5.3 Is SoTL research atheoretical?

From the analysis of the construction of the journal articles' theoretical foundation, an implicit theory was observed in more than half of the articles. In these articles, previous research was discussed in relation to the research object without leading to a position being adopted on the object. This finding may explain the perception in some quarters that SoTL lacks theory and awareness of previous work (Kanuka, 2011; Miller-Young & Yeo, 2015). However, more than half of the *empirical* research articles in higher education journals in Ashwin's (2012) study were similarly observed to deploy an implicit theory. This provides reason to surmise that SoTL's atheoretical outlook may have its antecedents in educational research in higher education as SoTL is an established framework of higher education research (Tight, 2019). Perhaps what is at stake is not whether SoTL employs theory in its enquiry, or how much theory it uses, but to what ends theory is put. Evidence from this study suggests that educational research literature is often used to inform the background of SoTL enquiry, and thus relatively loosely connected to the research objects. One possible reason for the use of literature instead of 'theory' may be due to the incoherent nature of the field that makes it hard SoTL enquiries to draw on well-defined bodies of knowledge to conceptualise their research objects. Additionally, the tenuous connection between theory and research objects may be due to the fact that theory-building is not the primary aim of SoTL research (Larsson et al., 2020). Perhaps then, SoTL's atheoretical outlook of SoTL should not be viewed as a shortcoming, but be looked upon with a renewed

understanding that theory is a means to an end. In other words, theory is used provisionally to develop teaching and improve student learning.

But what does it mean to use theory provisionally and why might such a view be more constructive? An implicit theory in SoTL research may be viewed as sensitising concepts, rather than definitive ones, with which to provide a sense of direction to advance educational practices (Ashwin, 2022). Theories by nature offer simplifications of the social world, and employing them definitively would oversimplify the complexity of educational practices (Ashwin, 2022), limiting the responsiveness of SoTL-based educational development interventions. Adopting definite theoretical positions on research objects may admittedly hinder theory-building, but that is not the ultimate aim of SoTL. Worse, it might hinder inclusive scholarship and exacerbate perceptions about the exclusion of the humanists from SoTL (Potter & Raffoul, 2023; Potter & Wutherick, 2015). Humanist researchers may feel that SoTL theories do not adequately capture the diverse purposes and values of education beyond measurable outcomes, or engage with the broader socio-political contexts and power dynamics shaping educational practices (Hooks, 1994; Giroux, 2004). Using theories in a definitive rather than provisional way is thus likely to be counter-productive to SoTL's educational enhancement imperative as it limits the diversity of perspectives needed to support the interrogation and enhancement of practices. Reframing the use of theory in SoTL from 'atheoretical' to 'provisional' is more constructive, not just to educational development in general but also the enculturation of new SoTL authors in particular. Not only does it redirect attention from a lack of theory in SoTL research to how theory is used to serve the interrogation and enhancement of practices, it is also more likely to promote new authors' reflection on their citation practices (Cappello & Miller-Young, 2020) and shift them towards a more substantive use of literature to support the building of a knowledge community that is engaged in ongoing and interrelated conversations.

5.4 Is SoTL research methodologically inadequate?

Evidence from this study suggests that the oft-held notion by critics that SoTL research lacks methodological rigour, is but half-true. A range of research approaches and methods was shown to be deployed by the studies examined. This finding appears to corroborate that of Larsson et al. (2020) which reported that SoTL scholars perceived the membership of the SoTL community as including "a range of research methods" (p.69). However, it was also observed that 22-29% of the articles in this study deployed more than one research approach or analysed more than one type of data. This may suggest some room for enhancing methodological pluralism especially at the level of data sources. Admittedly, a strong emphasis on survey methods to elicit learners' perspectives and interpretations on attitudes, satisfaction, and other self-reported outcomes seems reasonable given the primary and ultimate aim of SoTL research being the improvement of student learning. However, including other data perspectives and the perspective of the enquirer can go some way towards reducing respondent bias and support a more holistic and balanced evaluation of learning gains. It may thus be instructive for new scholars/authors to expand their methodological repertoire and be acquainted with more ways to evaluate learning beyond examining perceptual data.

It may be contended that encouraging a combination of data sources could suggest a positivist stance that seems to run counter to SoTL's inclusive aspirations. However, viewed another way, combining sources can capture the multiple voices and perspectives that are crucial to addressing the wicked problem of learning today (Bass, 2020) in which our knowledge about it will always be incomplete. Viewed in this light, a meaningful mix of data types can reinforce SoTL's inclusivity.

The analysis of methodological rigour in the journal articles yielded the finding that qualitative research approaches were most common. In addition, questionnaires and surveys, combined with interviews and focus groups, constituted the most frequently collected sources of data, in three-quarters of the articles. This latter finding seems to agree with that of Manarin et al. (2021)

who found that surveys, interviews and focus groups were the most common methods (90%) of data collection in SoTL journals, although they analysed only empirical articles. Even though qualitative approaches were the most common, the heavy emphasis on survey and interview data may lend credence to the view that SoTL emphasises social science norms to the exclusion of humanities scholars (Potter & Wutherick, 2015). Although this study *did* analyse narrative-based articles (6.4%), and to a limited extent witness the use of "critical, historical, analytical, comparative, or interpretive methods – often, in the process, employing metaphor, narrative, analogy, and other linguistic and imaginative devices" (p.6), it does seem plausible that SoTL journals may have some way to go to truly embrace methodological inclusivity.

5.5 Is SoTL research inconclusive?

Healey, Matthews, and Cook-Sather (2019) cited the case of Kelly (the second author), who submitted a reflective piece to a SoTL journal and received a recommendation of rejection from a peer reviewer who criticised the piece for ultimately having no clear conclusions. As the evidence from this study suggests, several possible reasons may have contributed to such an impression of inconclusiveness: 1) the use of implicit theory that makes it hard for theory to be revisited and revised in the light of changes to the research objects; 2) the preference for qualitative research approaches that favour relatively small sample sizes and make it hard for research outcomes to be generalised; and 3) the preference for positive appreciation as a mode of justification for research significance, coupled with the strong context-dependence of research outcomes, which limits the dialogic expansion of research outcomes, their transferability to the reader's context, and ultimately their resonance with readers.

Additionally, as research outcomes were observed to take a very positive, self-congratulatory position without sufficient critical evaluation or reflexive critique in more than half of the articles, and reflective pieces constituted only about a tenth of the data set, it is highly plausible that the impression of inconclusiveness may not be limited to reflective pieces (such as Kelly's

rejected submission) alone. In other words, the impression of inconclusiveness may not be a consequence of an article simply being reflective in nature. It follows to reason that empirical and other types of journal articles are just as susceptible to being (mis)perceived as inconclusive. In the ensuing arguments, I suggest that the impression of inconclusiveness may be misplaced if one understands the peculiarity of SoTL research.

One key area in which a divergence in emphasis appears to exist between SoTL and higher education research is in the contribution to knowledge. In more than half of the SoTL journal articles analysed, research outcomes were found to be affirmed for their importance, relevance, usefulness, and other positive values. In a further analysis of semantic gravity, the most frequent contexts for these affirmative claims were revealed to be oriented to the practical and local, such as in enhancing a lesson, course, or programme, and indeed the concrete particularities that often situated the research objects. These observations seem surprising when viewed against the finding of McKenna, Quinn, and Vorster (2018) that "the ability to move from troubling the issue within its context to being able to abstract findings so as to contribute to the field as a whole" (p.591) is valued in higher education research. If SoTL is an established framework in higher education research, then it would be reasonable to expect SoTL research to share the norms of contribution to knowledge in much the same way that SoTL and higher education research share a dominant knowledge code. However, the evidence from this study suggests otherwise, and thus potentially points to a peculiarity of SoTL research.

In the SoTL articles, the contexts of significance did not seem to have shifted very much at all from the concrete particularities that situated the research objects. A possible explanation for the divergence is that McKenna and her colleagues did not analyse journal articles in higher education research. Instead, they analysed PhD examination reports to learn about what PhD examiners valued in the doctoral theses they examined. However, as doctoral students are novice researchers being apprenticed into the normative values and epistemic practices of the field, it is unlikely that what is emphasised in

higher education journal articles would differ greatly from what was legitimated by PhD examiners. A more plausible explanation for the divergence may be attributable to the ultimate purpose, scope and beneficiaries of SoTL. According to Larsson et al. (2020), the primary purpose of SoTL is the enhancement of teaching and student learning. Adding to a shared knowledge base is not a neglected aim, but it is described as secondary. Results from SoTL research are presented to and valued primarily by university teachers and students, and are valued if disposed to immediate application. As the authors aptly underline, "the generalisable is not absent but is described as a bonus rather than a primary aim" (p.70).

The finding that the journal articles' claims to contribution to knowledge depended strongly on the particularities of the research context, or in other words lacked generalisability or abstraction, may provide empirical support to previous claims that most SoTL research to date "remains small-scale, short-term and local in orientation" (Tight, 2018, p.72). However, this does not necessarily bode ill for future SoTL research particularly if adding to a shared knowledge base is not a primary aim. In other words, understanding what SoTL is for matters in apprehending whether an article has clear conclusions. Tight suggests increasing the scale of SoTL research to widen its impact lest its contributions be forgotten in a few decades. However, questions of impact need to be discussed and understood vis-à-vis the aims and purposes of the enquiry. In SoTL, these relate ultimately to improving student learning. Today, the problem of learning is a wicked one whose 'answers' will always be unfinished or incomplete regardless of the scale of the inquiry (Bass, 2020). What the findings of this study instead suggest for the way forward may not be to increase the scale of SoTL studies. As most claims of significance of research outcomes were found to be limited to relatively straightforward affirmations of appreciation that may or may not be supported with a summary of the outcomes, it may be more useful for authors to construct and elaborate on such appreciation, interpreting the importance, relevance or usefulness of their findings to aid the translation of new knowledge into effective educational practices (Ashwin, 2022).

5.6 Conclusion

As the empirical perspective offered by the findings of this study suggests, the dominant knowledge code of SoTL journal articles may be accounted for by the fact that SoTL is an established framework in higher education research. However, SoTL research is not synonymous with higher education research, and one feature that confers peculiarity on SoTL research is the location of research significance in the concrete particularities that situate the research objects. In this light, the oft-held notion by critics that SoTL research lacks a clear conclusion needs to be reviewed with a keen awareness of the means and ends of SoTL.

The empirical perspective of this study also suggests the need to refresh our understanding of some of the complexities of SoTL. First, it provides convincing evidence that SoTL is now securely in the 'big tent' and is researched by scholars from across many disciplines. Consequently, the research objects of SoTL are becoming increasingly diverse, suggesting an increasingly fragmented discursive culture that poses increased challenge for the enculturation of new authors. Second, it suggests that SoTL research is about as 'atheoretical' as higher education research, and should be more precisely and constructively reframed in terms how theory is used and to what ends it is used, rather than whether it is used or how much of it is used. Third, it suggests that while SoTL research can be more methodological plural and inclusive, it is not methodological inadequate.

The implications of a refreshed understanding of SoTL as supported by the empirical findings of this study, for the enculturation of new authors will be discussed in the next chapter.

Chapter 6: Conclusion

This study began from a need to understand the tacit aspects of writing for publication in international journals in the field of Scholarship of Teaching and Learning (SoTL). The context of the study was the enculturation of new SoTL authors into the field. It was expected that an explicit knowledge of the tacit features of how knowledge about teaching and learning is written about in these journals would help educational developers better support new authors to participate in creating and disseminating new knowledge through publication.

The study set out to investigate from the perspective of Legitimation Code Theory (LCT) what objects and relations of knowledge were emphasised in SoTL journal articles. It further sought to discover the meaning-dependency relations that underlied the articles' construction of research significance. A content analysis of 93 journal articles from four international journals in the field was undertaken to bring into view the underlying structures that gave legitimacy to published knowledge in the journals.

The analysis was guided by LCT concepts from the dimensions of Specialisation and Semantics to manifest the knowledge/knower and meaning-dependency structures of interest respectively. Specialisation analyses drew out the epistemic relations between the objects of knowledge that were emphasised in the published articles. A further analysis of semantic gravity in the articles' construction of research significance drew out the degree of abstraction in the meaning or value of research outcomes.

The study yielded findings that underline the peculiarity of published knowledge in SoTL. The findings also suggested implications on the tensions that need to be negotiated in writing for publication, and the conceptualisations of SoTL that need to be refreshed to better support new authors' discursive enculturation into the field.

This chapter concludes the study and develops the implications that arose from the discussion of findings in the previous chapter. It will argue the following key implications: 1) faculty developers can better facilitate new authors' access into

the field by familiarising themselves with the objects and relations of knowledge that are valued in international, peer-reviewed journals; 2) new scholars can have much to gain from a wider repertoire of ways to evaluate educational practices and communicate their findings to a wider audience; 3) new editors and reviewers may need a more informed appreciation of the provisional use of theory in SoTL research, and the location of contribution in the particularities of practice. They may also need to strike a better balance between promoting inclusivity and enhancing the coherence of the field.

The chapter is organised as follows: in Section 6.1, I summarise and consolidate the study's key findings to address the research questions. In Section 6.2, I discuss the limitations of the study by acknowledging that the knowledge dimension of SoTL enculturation is but one of several aspects of accessing the field, and that journal articles constitute just one of several sites in which contestations of legitimacy are played out and negotiated. In Section 6.3, I consider the theoretical, methodological, and practical contributions that this study makes to SoTL and educational development. Principally, I argue that: 1) the study contributes an empirical perspective to corroborate and challenge theorised conceptualisations of SoTL, thus refreshing our understanding of the complexities of SoTL and how better to support new authors to navigate those complexities; 2) the study discerns what makes SoTL research peculiar and in so doing, lays the foundation for high impact interventions to support the enculturation of new authors; and 3) the study cracks the code of scholarship (of teaching and learning), demystifying the knowledge and meaning-dependency structures that underlie successful journal publication in SoTL. In Section 6.4, I discuss the implications of my study for faculty developers, new authors, and journal peer reviewers and editors. Finally, in Section 6.5, I turn the analytic lens on my study and reflect on its contribution to SoTL literature.

6.1 Addressing the research questions

The research questions that this study sought to answer were:

1) What objects/subjects of knowledge and the relationships between them are emphasised in internationally published journal articles in SoTL?
2) What relationships between the meanings of research outcomes and their contexts are emphasised in the articles' claims of contribution to the field?

To answer the first research question on knowledge/knower structures, the study found a dominant knowledge code in the SoTL journal articles analysed. In other words, it was *what* one knows rather than *who* one knows that was emphasised in successfully published articles in international SoTL journals. The objects and relations of knowledge that were emphasised in the articles were:

- specific research objects on teaching and learning, although substantial variance was also observed in the specific research objects of the field as a whole;
- theories that conceptualised research objects implicitly, without leading to clear positions on the research objects;
- qualitative research approaches and survey methods; and
- propositions of appreciation of research outcomes.

To answer the second research question on meaning-dependency structures, it was found that the meanings (e.g., value or importance) of the articles' research outcomes depended heavily on the contexts of enquiry. In other words, the articles' claims to knowledge and contributions to the field were built upon and around a low degree of abstraction of research outcomes.

6.2 Limitations

One of the limitations of the study is that in demystifying what counts as legitimated knowledge, this study has focused only on one aspect of the knowledge base of the field, namely published articles in international SoTL journals. Admittedly, the knowledge base of SoTL is broad and encompasses the know-how, materials and meanings that surround the production and

consumption of peer-reviewed presented and published research, textbooks, literature reviews, and so on. (Kern et al., 2015). Also, this study has not examined disciplinary SoTL journal articles, which may manifest a variant configuration of legitimation structures. Despite the limited foci, there is value in situating a study of legitimated knowledge in the published output of international peer-reviewed journals because of the salience of the site in moving new scholars from the periphery toward full participation in the field and global arena. As Healey, Matthews, and Cook-Sather (2020) note, "publications are academic currency that carry symbolic and material power linked to status and hierarchy in most… disciplinary communities" (p.28). Driven by its educational development impetus, this study thus sought to manifest the tacit structures that contributed to the validation of new knowledge in the field through journal article publication. Future research may add to this study by investigating what counts as SoTL in other forms of the field's knowledge capital, such as in peer-reviewed conference presentations and shorter pieces on weblogs.

Furthermore, latent content analyses of the epistemic and semantic structures that are emphasised in journal articles constitute only one perspective of how knowledge is legitimised by the journals' gatekeepers who include editors and reviewers. The study has not sought the views of the gatekeepers on the published articles, which would admittedly contribute to corroborating some of the present findings. Neither have the views of the published authors been sought, which would be useful for illuminating why certain structures were (de)emphasised and providing a more complete picture of legitimated knowledge as complex and negotiated. However, it is hoped that this limitation is to some extent compensated for by the study's relatively large sample which added some generalisability to its findings. Additionally, by empirically excavating what *is* in the finished product (i.e. published articles) rather than what is thought to be or should be, this study has privileged practice over perception in locating what counts as valid knowledge in the field. By this chosen focus it is hoped that the study will add some balance to the perception-heavy foci in similar studies aimed at inducting new SoTL scholars through

writing and publication (e.g., Healey, Matthews, & Cook-Sather, 2019, 2020). A possible extension of this study might single out 10% of the corpus for content-based interviews with journal editors, reviewers and authors for participant validation and deepened exploration of the findings.

6.3 Original contributions to knowledge

The originality of this study may be justified by its being uniquely positioned at the intersection of SoTL and educational development. The study's findings make theoretical, methodological and practical contributions to both fields of inquiry. Theoretically, the findings of this study have added to a body of knowledge on the nature of SoTL as a field of enquiry by providing empirical evidence from the analysis of published research. Previous studies have attempted to trace the history and development of the field to show how it has changed over time (Tight, 2018; Webb, 2020), and to elicit academics' conceptions of SoTL to capture points of convergence and divergence and discern it from other forms of higher education research (Healey, 2003; Larsson et al., 2020). However, there has been no study to date that attempts to go beyond definitions and perceptions to apprehend the nature of SoTL as a textualised practice that is enacted through writing. This study has provided empirical evidence from a systematic analysis of the nature of SoTL's research objects, theories, approaches and methods, research outcomes and the ways these are emphasised to corroborate the field's primary purpose of enhancing teaching and student learning, and its secondary aim of adding to a shared knowledge base. In other words, the study has highlighted, from the new perspective of enacted practice through writing and publication, that the peculiarity of SoTL seems to reside in its *translational* approach to educational theory in service of improving teaching and student learning in the short term.

Apart from discerning the peculiarity of SoTL, this study refreshed critical views surrounding the legitimacy and rigour of the field. As discussed in Chapter 2, SoTL research has been criticised for being 'atheoretical' and lacking in methodological rigour (Boshier, 2009; Canning & Masika, 2022; Kanuka, 2011), often from the perspective of educational research. While the findings of this

study may not have fully debunked these subjectivities, they have deepened understanding of the basis of such critical views from an empirical perspective. Notably, the findings have suggested that the theoretical 'inadequacy' of SoTL research does not reside in the fact that theory is absent or under-used. Rather, it is a qualitative gap in connection between theory and the research object that gives SoTL its atheoretical outlook, a gap that that is not exclusive to SoTL research alone. Additionally, from the perspective of epistemic relations, this study has illuminated *why* theoretical use has come to be as such in SoTL research, suggesting that it can be hard to employ well-developed theories due to the lack of coherence of the field. In lieu of theories therefore, SoTL research often employs a constellation of references to literature to contextualise rather than conceptualise the research object. In regard to methodological rigour, this study has shown the criticisms to be only partially fair: while there is room for improvement in methodological pluralism and inclusivity, SoTL research does not lack methodology or method. In fact, the analyses suggested a preponderance of qualitative research approaches and survey methods, even in non-empirical pieces. The study further suggested that it may be a preference for qualitative research approaches that is in part responsible for the lack of generalisability and hence, inconclusive outlook that allegedly limits SoTL's rigour. In sum, by refreshing the contestations of rigour and legitimacy surrounding SoTL research with empirical insights anchored in a close examination of epistemic relations, this study has engaged with what SoTL researchers are actually trying to achieve, and recognised the way that SoTL research is bounded by the knowledge practices that "characterise a field of enquiry at a particular moment in time and space" (Ashwin, 2012, p.947). It has successfully undertaken a timely stock-taking exercise of the state of the field and produced nuanced findings that describe what the field *is* at this time and possibly why it has come to be, to balance the critical discourse on what people think it is or should be. In doing so, it has paved the way for more informed dialogues on the legitimacy of the field, and made inroads into more constructive interventions that can be developed to ease the discursive enculturation of new authors.

Additionally, the findings of this study add to the body of knowledge that explores SoTL as a form of troublesome knowledge. Previous research has identified personal, relational and contextual factors that may hinder SoTL academic identity and knowing (Manarin & Abrahamson, 2016). Examples include disciplinary backgrounds, connection with others, and institutional support. This study has suggested evidence of a further set of discursive factors by revealing tensions that need to be successfully negotiated by scholars who are trying to gain access into the field through writing and publication. These tensions may include grounding research in context-specific detail and constructing context-dependent outcomes *versus* addressing a diverse international readership inclusively; adding to a diverse range of research objects *versus* contributing to a (coherent) field of enquiry; and being disposed to some form of "methodological nationalism" (Aarnikoivu et al., 2019, p.2) *versus* being committed to an outlook of "scholarly cosmopolitanism".

The findings also complement Webb's (2016) identification of the threshold concepts in SoTL, or where its troublesome aspects of knowledge are located. These concepts have been identified as *conceptions of research, permeability within institutional cultures, and the novice to expert continuum*. However, Webb's concepts were aimed at developing academics' SoTL practice holistically, and not specifically targeted at helping authors to get published. This study's findings on the underlying logics of successful publication develop Webb's *conceptions of research* by unpacking "a new discourse of SoTL" (p.303) that significantly hinders new scholars' engaging in SoTL research.

Methodologically, this study makes a novel addition to perception-focused studies on the nature of SoTL by employing concepts from LCT to inform the latent content analysis of journal articles. Analysing journal articles from the perspective of LCT helped to reveal the tacit structures that undergird authors' knowledge creation and contribution to the field, and in so doing reinforce the nature of SoTL. Concepts from the Specialisation dimension of LCT (i.e. epistemic relations and social relations) helped to draw out the objects of knowledge and their relationships that are emphasised in successful publication. The concept of semantic gravity from the dimension of Semantics

116

helped to elicit the contingencies between the significance of research outcomes and the contexts of enquiry that are emphasised in contributions to the field. LCT has offered a nuanced way of characterising the nature of SoTL and its underlying structures by describing what epistemological features are emphasised over others, avoiding the kind of "epistemological essentialism" (Trowler, 2009, p.182) that often occurs in higher education studies that make generalisations about disciplinary territories. Although this study did not find social relations to be emphasised in SoTL articles, this did not mean that social relations were irrelevant or unimportant, because "writing about learning and teaching as a scholarly conversation… is about *people* within a given community contributing to a shared process of knowledge generation" (Healey, Matthews, & Cook-Sather, 2020, p.29). What it meant was that such relations, between people, were brokered through knowledge.

Such an LCT-informed, empirical analysis adds a layer of realistic understanding of what SoTL *is* – as enacted practice through writing and publication – to what has been known about SoTL as perceived or expected by scholars. Such realism can make a difference to current debates about the future direction of SoTL on whether and how it should become more theoretical, more impactful, more methodologically inclusive, and more differentiated from educational research and other frameworks in higher education. The empirical findings from this study suggested that while there seems some room for SoTL's methodological representation to catch up with the field's inclusive aspirations as a whole, SoTL is good the way it *is*, even if it appears atheoretical and short of impact; and it is peculiar for its provisional utility of theory to guide the improvement of teaching and student learning in the short term and in ways that are relevant and responsive to the enhancement contexts.

This LCT-informed study also adds to a growing body of work on the use of LCT to enhance teaching and learning in higher education (Winberg, McKenna, & Wilmot 2020). In academic professional development, LCT has been employed to "reveal the tacit 'rules' for success… [in] staff development" (p.14) through exploring the basis of achieving sustained teacher learning in course

design and pedagogy, enabling STEM (i.e. Science, Technology, Engineering, and Mathematics) lecturers to unpack their pedagogic or disciplinary practices in support of enhanced student learning, and so on. However, LCT has not been applied by academic developers to unpack the practice of SoTL until a recent pilot study by Brooke, Loo, and Wong (2023). Their study explores the potential of LCT in providing newcomers with a theorised way of thinking and talking about their own SoTL research to enable them to be more aware of the nature of the field and the 'rules of the game'. However, not only is their study based on the personal reflections of the (three) authors and therefore highly exploratory, it does not provide academic developers with the field knowledge that they need to develop expertise and credibility to ease or expedite newcomers' transition into the field. The present study provides that knowledge, through its empirically-derived conceptualisation of the field and its underlying logics, based on a corpus of 93 published articles in peer-reviewed, international journals. Furthermore, unlike their study, this study employs LCT concepts as sensitising concepts that "provide a direction to look along and are open to change" (Ashwin, 2022) rather than as deductive criteria to structure the analysis. This allowed the data to speak to the researcher rather than be led by the concepts.

Additionally, this study makes practical contributions to the induction and training of academic newcomers to SoTL. It does so by empowering academic developers with an explicit and evidence-based understanding of what counts as legitimate knowledge in published research, what matters in constructing such knowledge through writing, and where the key 'stuck places' or epistemological barriers are likely to be. Such an understanding complements Healey, Matthews, and Cook-Sather's (2019) heuristic frameworks for writing SoTL articles for publication in peer-reviewed journals which are developed from the authors' collective experience as mature scholars in the field. As they note, their frameworks "offer [authors] steps for getting started by presenting questions for consideration" (p.35) but may provide limited support to empower academic developers with the expert knowledge they need to create sustained changes in enculturating new scholars into SoTL. This study has provided the

knowledge base to inform academic developers' design of appropriate training interventions to support journal editors, reviewers and authors in their roles, and facilitate newcomers' engagement in SoTL through writing and publication.

Ultimately, this study makes an original contribution to knowledge in the following ways: first, the study contributes an empirical perspective to corroborate and challenge theorised conceptualisations of SoTL, thus refreshing our understanding of the complexities of SoTL and how to better support new authors to navigate those complexities. Examples of such refreshed understandings include recognising the provisional use of theory to develop teaching and improve student learning, and the location of research significance in the concrete particularities of the research context. These refreshed understandings reassure faculty developers, new authors, and journal peer reviewers and editors that it is 'ok' to appear 'atheoretical' or 'inconclusive' because these are fair estimations of what SoTL research is. Second, by discerning the peculiarity of SoTL research in the location of research significance in the particularities of context, this study lays the foundation for high impact interventions to support the enculturation of new authors. Third, this study cracks the code of scholarship (of teaching and learning), demystifying the knowledge and meaning-dependency structures that underlie successful journal publication in the field.

6.4 Implications

The findings produced by this study on the dominant knowledge code of SoTL journal articles and their underlying and patterns of knowledge and meaning should feed directly into the knowledge base of academic developers tasked with the role of inducting disciplinary scholars into or engaging them in SoTL through writing and publication. As Ashwin (2018) notes, academic developers need to have "a clear sense of the basis of their expertise if they are to have the credibility" (p.117) to support others to learn how to create and contribute to scholarly conversations through writing. Many teaching and learning centres in universities around the world appoint faculty developers who are esteemed teaching excellence award winners or accomplished published SoTL scholars.

These colleagues do bring a wealth of experience to share with newcomers about how students learn or how they got published. However, they may not possess the skilful means to help fellow colleagues engage in SoTL through writing because to do so requires more than just experience – they also need meta-knowledge of the principles, structures, and patterns of knowledge and meaning that lie beneath published text, and to be able to articulate them in support of developing other authors. In other words, faculty developers need the expertise of evidence-based knowledge to excel at their role. The knowledge produced by this study could be fed into the design of workshops that guide new authors to deconstruct published articles to learn *how* successful authors address the following review criteria (examples of which are extracted from the *International Journal of the Scholarship of Teaching and Learning*'s website):

- Is the paper intellectually accessible for college faculty in various countries and higher education systems?
- Does the paper serve to promote international knowledge, conversations or collaborations about the topic, or about SoTL in general?
- Does the scholar bring together the (theoretical) resources necessary to move the project forward?
- Does the scholar's work add consequentially to the field?
- Does the scholar critically evaluate his or her own work?
- Does the scholar use evaluation to improve the quality of future work?

Such knowledge-rich training will also bode well for developing future reviewers who are sufficiently informed to avoid the type of negative example in Healey, Matthews, & Cook-Sather (2019) who desk-rejected an article because it did not employ a familiar 'social science' methodology.

One of the tensions that new SoTL authors must be helped to negotiate in writing for publication is how to remain local in orientation while addressing a global audience inclusively. As corroborated by the evidence found in this study, SoTL research fulfils its primary purpose in its immediate application in support of the enhancement of teaching and student learning. Such immediacy

often finds the most realisation in the particularities of the classroom where teaching and learning are negotiated. However, it is also these circumstantial minutiae that are mostly likely to disinterest and alienate a global readership. Authors therefore need to be able to address both insiders and outsiders, equally. There is no easy solution to this, but it is possible to learn from observing the writings of more accomplished authors in the corpus analysed in this study, that one way to address a global audience is to foreground shared values (Kreber, 2015) – a growth mindset, truthfulness, courage, justice and the values that uphold scholarship – in interpreting the significance of research outcomes. Another way is to recognise authors' own "current biases, or perhaps blindness" (Healey, Matthews, & Cook-Sather, 2020, p.13) as acknowledging the sociocultural embeddedness of teaching and learning has been deemed by experienced editors, reviewers and authors as being "critical for truly international SoTL conversations".

Another challenge that new authors need to be helped to overcome is contributing to building knowledge in what appears to be at present an incoherent field of enquiry. Although specific research objects are emphasised in SoTL research, there was considerable variation in these objects in the 93 journal articles analysed, which can make it hard for authors to add to contingent and sustained international SoTL conversations. Apart from the aforementioned strategies on writing to connect globally, new authors may be helped to leverage on (international) *disciplinary* SoTL journals as an 'interim' outlet for their research, to gain experience on writing and publishing before aiming to publish on an international commons platform. Another way to create some coherence is to employ learning theories, in lieu of singular or loosely strung concepts, to conceptualise research objects. Such theories provide "framework[s] upon which researchers are basing their assumptions about the nature of learning, either explicitly or tacitly" (Miller-Young & Yeo, 2015, p.41), and aid authors in connecting and contributing to global conversations through reflexivity and reflecting on positionality.

The final implication is dedicated to the growth and development of the field. Although this study has demonstrated that SoTL articles seem to favour implicit

theories and less generalised outcomes, authors should be acquainted with learning theories to raise awareness of their own assumptions, encourage reflexivity, and stimulate reflection on positionality in their writing about teaching and learning. These would help to deepen the impact of their research despite seemingly settling for something less in terms of theoretical outlook and significant contribution to the field. Increased impact subsequently benefits the future of SoTL, helping it become "little [less] than a historical footnote, scarcely remembered by anyone" (Tight, 2018, p.73). Additionally, journal gatekeepers should strike a more delicate balance between promoting inclusivity and enhancing the unity and coherence of the knowledge base of the field. They may need to be more discriminating in validating research objects, and where appropriate, recommend new authors to consider disciplinary SoTL journals as alternative outlets for publication.

6.5 Closing remarks

In this final section, I turn the analytic lens on my thesis to reflect on its epistemic relations and semantic gravity, and consider their relevance to its contribution to the SoTL literature. My rationale in doing so is to hold the scholastic bias in check by overcoming the dual separation between the subject/knower and object/knowledge (Bourdieu, 2000), and by recognising that "we cannot avoid engaging in [educational] research for our own development… to grow our own discipline and to better understand the complex contexts of those… we must support" (Williams, 2009, p.219).

This thesis signifies a dominant knowledge code in which strong epistemic relations constitute the principal means of legitimation in the field of higher education research (McKenna, Quinn, & Vorster, 2018). Strong epistemic relations (ER++) begin from a focussed problem-space and research object in higher education, namely the tacit knowledge and meaning structures constituting the bases of achieving successful publication in international, peer-reviewed SoTL journals. The strong epistemic relations are sustained mainly through my use of LCT as a theoretical lens to perceive SoTL journal articles as

a form of knowledge legitimated by the journal peer review process, and as the textual product of negotiations between authors, reviewers and editors. According to McKenna, Quinn and Vorster's (2018) analysis of PhD examination reports, high level theoretical and meta-theoretical engagement as well as methodological rigour are emphasised and validated in the field of higher education research. In this thesis, high level theoretical engagement and methodological rigour are realised through the use of semantically dense concepts such as epistemic relations and semantic gravity from the Specialisation and Semantics dimensions of LCT, to perceive the legitimation structures underlying the journal articles and construct the analyses. High level meta-theoretical engagement is realised through the use of a social realist epistemology to recognise (tacit) knowledge as a worthy object of research in its own right and as having real effects on the discursive enculturation of new SoTL scholars.

Apart from a dominant knowledge code, this thesis also textualises a weakening semantic gravity (SG-) as it "moves from a critical engagement with the immediate contextual issues to an abstraction of the findings for the field more generally" (McKenna, Quinn, & Vorster, 2018, p.590). The context of the issue of tacit knowledge was described in Chapter 1 as the educational development imperative to socialise new scholars into the discursive norms and values of SoTL research. In Chapter 2, I engaged critically with conceptualisations of SoTL in the literature to make the argument that contestations about the legitimacy and rigour of SoTL, combined with complexities within the field related to its evolving nature and 'big tent' of scholars, pose considerable challenge to the epistemic access of new scholars. I questioned the basis and validity of those contestations, drawing attention to their subjectivist orientations. In Chapter 5, I began to abstract my findings so as to contribute to the field as a whole, using them to interrogate the legitimacy and rigour concerns in the literature from the perspective of an empirically constructed analysis. I argued that my findings provided only limited support for views that dismiss SoTL research as atheoretical and lacking in methodological rigour, underlining that theory is used quite differently in SoTL, and that rigour is

located in its research approaches and methods rather than outcomes. These refreshed understandings contribute to the SoTL literature in higher education research by recognising the way that SoTL research is structured by the epistemic relations and semantic gravity that characterise the field at the present moment in time and space.

In conclusion, this investigation of the tacit knowledge and meaning structures that underlie published articles in SoTL makes an original and significant contribution to the field. It does so by providing empirical evidence from an LCT-informed content analysis of 93 articles in international journals to corroborate and challenge previously defined, perceived and idealised conceptualisations of the field, tempering what is normatively valuable with what is descriptively true, and highlighting the field's peculiarity. The study yielded useful findings that can be fed into the design of productive interventions by academic developers to induct and socialise new scholars into SoTL through writing. It also created a source of powerful knowledge on which academic developers' expertise and credibility can be grounded.

References

Aarnikoivu, M., & Kontowski, D. (2021). *Rules of writing and publishing in the field of higher education research: Are there any?* [Paper presentation]. Society for Research into Higher Education International Conference. Online. https://srhe.ac.uk/arc/21/0093.pdf.

Aarnikoivu, M., Mahon, K., Agnafors, M., Hoffman, D., & Angervall, P. (2021). Another higher education journal: Really? *Journal of Praxis in Higher Education*, *1*(1), 1–9. https://doi.org/10.47989/kpdc89.

Ashwin, P. (2012). How often are theories developed through empirical research into higher education? *Studies in Higher Education, 37*(8), 941-955. https://doi.org/10.1080/03075079.2011.557426.

Ashwin, P. (2022). Understanding educational development in terms of the collective creation of socially-just curricula. *Teaching in Higher Education, 27*(8), 979-999. https://doi.org/10.1080/13562517.2022.2111208.

Ashwin, P., & Smith, K. (2015). Researcher creations? The positioning of policy texts in higher education research. *Higher Education, 69*(6), 1007-1018. https://doi.org/10.1007/s10734-014-9819-9.

Ashwin, P., & Trigwell, K. (2004). Investigating staff and educational development. In D. Baume & P. Kahn (Eds.), *Enhancing staff and educational development* (pp. 117–131). London: Routledge Falmer.

Bailey, E., Le Vin, A., Miller, L., Price, K., Sneddon, S., Stapleton G., & Wolfe, L. (2022). Bridging the transition to a new expertise in the scholarship of teaching and learning through a faculty learning community. *International Journal for Academic Development, 27*(3), 265-278. https://doi.org/10.1080/1360144X.2021.1917415.

Bass, R. (2020). What's the problem now? *To Improve the Academy, 39*(1). http://dx.doi.org/10.3998/tia.17063888.0039.102.

Bedeian, A. G. (2004). Peer review and the social construction of knowledge in the management discipline. *Academy of Management Learning & Education*, *3*(2), 198-216. https://doi.org/10.5465/amle.2004.13500489.

Bennett, R., Hobson, J., Jones, A., Martin-Lynch, P., Scutt, C., Strehlow, K., & Veitch, S. (2016). Being chimaera: A monstrous identity for SoTL academics. *Higher Education Research & Development, 35*(2), 217-228. https://doi.org/10.1080/07294360.2015.1087473.

Bernstein, B. (1990). *Class, codes and control: Vol. 4. The structuring of pedagogic discourse*. London: Routledge.

Bernstein, B. (2000). *Pedagogy, symbolic control, identity: Theory, research, critique*. (Rev. ed.). Lanham, MD: Rowman & Littlefield.

Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, *19*(4), 426-432.

Boshier, R. (2009). Why is the Scholarship of Teaching and Learning such a hard sell? *Higher Education Research & Development, 28*(1), 1-16. https://doi.org/10.1080/07294360802444321.

Bourdieu, P. (2000) *Pascalian meditations*. Cambridge: Polity Press.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

Brooke, M., Lee, K. C., Wai-Cook, Misty S., Navera, G. S., & Tang, K. K. (2020). Trekking the educator track at a research-intensive university: Five accounts of different career levels. *International Journal for the Scholarship of Teaching and Learning, 14*(2), Article 3. https://doi.org/10.20429/ijsotl.2020.140203.

Brooke, M., Loo, D., & Wong, C. (2023). Using Legitimation Code Theory (LCT) to define and track the practice of the scholarship of teaching and learning.

International Journal of Teaching and Learning in Higher Education, 35(2), 73-83. https://www.isetl.org/ijtlhe/pdf/IJTLHE4434.pdf.

Canning, J., & Masika, R. (2022). The scholarship of teaching and learning (SoTL): The thorn in the flesh of educational research. *Studies in Higher Education, 47*(6), 1084-1096. https://doi.org/10.1080/03075079.2020.1836485.

Cappello, A., & Miller-Young, J. (2020). Who are we citing and how? A SoTL citation analysis. *Teaching & Learning Inquiry, 8*(2). http://dx.doi.org/10.20343/teachlearninqu.8.2.2.

Catalana, S. M. (2020). Indicators of impactful reflection in pre-service teachers: A case for creativity, honesty and unfamiliar experiences. *International Journal for the Scholarship of Teaching and Learning, 14*(1), Article 14. https://doi.org/10.20429/ijsotl.2020.140114.

Chick, N. L. (2014). 'Methodologically sound' under the 'big tent': An ongoing conversation. *International Journal for the Scholarship of Teaching and Learning, 8*(2), Article 1. https://doi.org/10.20429/ijsotl.2014.080201.

Chick, N., Nowell, L., & Lenart, B. (2019). The Scholarship of Teaching and Learning: A scoping review protocol. *Teaching & Learning Inquiry, 7*(2). https://doi.org/10.20343/teachlearninqu.7.2.12.

Chick, N., Ostrowdun, C., Abbot, S., Mercer-Mapstone, L., & Grensavitch, K. (2021). Naming Is power: Citation practices in SoTL. *Teaching & Learning Inquiry, 9*(2). http://dx.doi.org/10.20343/teachlearninqu.9.2.2.

Chin, D., Phillips, Y., Woo, M. T., Clemans, A., & Yeong, P. K. (2020). Key components that contribute to professional identity development in internships for Singapore's tertiary institutions: A systematic review. *Asian Journal of the Scholarship of Teaching and Learning, 10*(1). 89-113. https://ctlt.nus.edu.sg/ajsotl-volume-10-no-1/.

Chng, H. H., & Looker, P. (2013). On the margins of SoTL discourse: An asian perspective. *Teaching & Learning Inquiry, 1*(1), 131-145. https://doi.org/10.20343/teachlearninqu.1.1.131.

Christie, F. (2016) Secondary school English literary studies: Cultivating a knower code. In K. Maton, S. Hood, & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 158–175). London: Routledge.

Clarence, S., & van Heerden, M. (2021). Changing curriculum and teaching practice: A practical theory for academic staff development. In C. Winberg, S. McKenna, & K. Wilmot (Eds.), *Enhancing teaching and learning with Legitimation Code Theory* (pp. 145-161). London: Routledge.

Cook-Sather, A., Abbot, S., & Felten, P. (2019). Legitimating reflective writing in SoTL: "Dysfunctional illusions of rigor" revisited. *Teaching & Learning Inquiry, 7*(2). http://dx.doi.org/10.20343/teachlearninqu.7.2.2.

Cornejo Happel, C. A., & Song, X. (2020). Facilitators and barriers to engagement and effective SoTL research collaborations in faculty learning communities. *Teaching and Learning Inquiry*, *8*(2), 53–72. https://doi.org/10.20343/teachlearninqu.8.2.5.

Cousin, G. (2008). *Researching learning in higher education: An introduction to contemporary methods and approaches*. London: Routledge. https://doi.org/10.4324/9780203884584.

Cox, M. D. (2003). Fostering the scholarship of teaching through faculty learning communities. *Journal on Excellence in College Teaching, 14*(2/3), 161-198.

Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River: NJ: Merrill Prentice Hall.

Cross, K. P., & Steadman, M. H. (1996). *Classroom research: Implementing the scholarship of teaching*. San Francisco, CA: Jossey-Bass.

Dalgarno, N., Laverty, C., Egan, R., Garton, K., Soleas, E., Babando, J., & van Wylick, R. (2020). Participant perceptions of the faculty development Educational Research Series. *Teaching and Learning Inquiry*, *8*(1), 221–245. https://doi.org/10.20343/teachlearninqu.8.1.15.

Davis, S. K., Edwards, R. L., Hadwin, A. F., & Milford, T. M. (2020). Using prior knowledge and student engagement to understand student performance in an undergraduate learning-to-learn course. *International Journal for the Scholarship of Teaching and Learning*, 14(2), Article 8. https://doi.org/10.20429/ijsotl.2020.140208.

Fanghanel, J. (2013). Going public with pedagogical inquiries: SoTL as a methodology for faculty professional development. *Teaching and Learning Inquiry, 1*(1), 59–70. https://doi.org/10.20343/teachlearninqu.1.1.59.

Felten, P. (2013). Principles of good practice in SoTL. *Teaching and Learning Inquiry, 1*(1), 121–125. https://doi.org/10.20343/teachlearninqu.1.1.121.

Felten, P., Kalish, A., Pingree, A., & Plank, K. (2007). Toward a scholarship of teaching and learning in educational development. In D. Robertson & L. Nilson (Eds.), *To improve the academy: Resources for faculty, instructional and organisational development* (pp. 93–108). San Francisco, CA: Jossey-Bass.

Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications* (8th ed). Upper Saddle River, NJ: Merrill Prentice Hall.

Geertsema, J. (2016). Academic development, SoTL and educational research. *International Journal for Academic Development, 21*(2), 122-134. https://doi.org/10.1080/1360144X.2016.1175144.

Geertsema, J., Chng, H. H., Gan, M., & Soong, A. (2018). Teaching excellence and the rise of education-focused employment tracks. In S. Gakhal (Ed.) *Global perspectives on teaching excellence* (pp. 130-142). London: Routledge.

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Berkeley, CA: University of California Press.

Giroux, H. A. (2004). Cultural studies, public pedagogy, and the responsibility of intellectuals. *Communication and Critical/Cultural Studies*, *1*(1), 59-79. https://doi.org/10.1080/1479142042000180926.

Goh, C. (2016). Successes and challenges in the continuing education of teachers: The Singapore experience. In *THF Workshop Report 4: Teacher Development: Dimensions & Perspectives* (pp. 9–20). Singapore: The HEAD Foundation.

Glassick, C., Huber, M., & Maeroff, G. (1997). *Scholarship assessed: Evaluation of the professoriate*. San Francisco: Jossey-Bass.

Haigh, N., & Withell, A. J. (2020). The place of research paradigms in SoTL practice: An inquiry. *Teaching & Learning Inquiry, 8*(2). https://doi.org/10.20343/teachlearninqu.8.2.3.

Healey, M. (2003). The scholarship of teaching: Issues around an evolving concept. *Journal on Excellence in College Teaching, 14*(1/2), 5-26.

Healey, M., Matthews, K. E., & Cook-Sather, A. (2019). Writing Scholarship of Teaching and Learning articles for peer-reviewed journals. *Teaching and Learning Inquiry, 7*(2), 28–50. https://doi.org/10.20343/teachlearninqu.7.2.3.

Healey, M., Matthews, K. E., & Cook-Sather, A. (2020). *Writing about learning and teaching in higher education: Creating and contributing to scholarly conversations across a range of genres*. Elon, NC: Elon University Center for Engaged Learning. https://doi.org/10.36284/celelon.oa3.

Hooks, Bell. (1994). *Teaching to transgress: Education as the practice of freedom*. London: Routledge.

Hubball, H., & Albon, S. (2007). Faculty learning communities: Enhancing the scholarship of teaching, learning, and curriculum practice. *Journal on Excellence in College Teaching, 18*(2), 119-141.

Hubball, H., & Clarke, A. (2010). Diverse methodological approaches and considerations for SoTL in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning, 1*(1). http://dx.doi.org/10.5206/cjsotl-rcacea.2010.1.2.

Hutchings, P. (2000). *Opening lines: Approaches to the scholarship of teaching and learning*. Princeton, NJ: Carnegie Publications.

Hutchings, P., Huber, M. T., & Ciccone, A. (2011). *The scholarship of teaching and learning reconsidered: Institutional integration and impact*. San Francisco, CA: Jossey-Bass.

Hutchings, P., & Shulman, L. S. (1999). The scholarship of teaching: New elaborations, new developments. *Change: The Magazine of Higher Learning, 31*(5), 10-15. https://doi.org/10.1080/00091389909604218.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing.* Harlow: Longman.

Kamler, B., & Thomson, P. (2014). *Helping doctoral students write: Pedagogies for supervision*. London: Routledge.

Kanuka, H. (2011). Keeping the scholarship in the Scholarship of Teaching and Learning. *International Journal for the Scholarship of Teaching and Learning, 5*(1). https://doi.org/10.20429/ijsotl.2011.050103.

Kelly, N., Nesbit, S., & Oliver, C. (2012). A difficult journey: Transitioning from STEM to SoTL. *International Journal for the Scholarship of Teaching and Learning, 6*(1), Article 18. https://doi.org/10.20429/ijsotl.2012.060118.

Kenny, N., Popovic, C., McSweeney, J., Knorr, K., Hoessler, C., Hall, S., Fujita, N., & El Khoury, E. (2017). Drawing on the principles of SoTL to illuminate a path forward for the scholarship of educational development. *Canadian Journal for the Scholarship of Teaching and Learning*, *8*(2). https://doi.org/10.5206/cjsotl-rcacea.2017.2.10.

Kern, B., Mettetal, G., Dixson, M. D., & Morgan, R. K. (2015). The role of SoTL in the academy: Upon the 25th anniversary of Boyer's scholarship reconsidered. *Journal of the Scholarship of Teaching and Learning, 15*(3), 1–14. https://doi.org/10.14434/josotl.v15i3.13623.

Kim, A. S. N., Popovic, C., Farrugia, L., Saleh, S. A. F., Maheux-Pelletier, G., & Frake-Mistak, M. (2021). On nurturing the emergent SoTL researcher: Responding to challenges and opportunities. *International Journal for Academic Development, 26*(2), 163-175. https://doi.org/10.1080/1360144X.2020.1842743.

Kreber, C. (2015). Reviving the ancient virtues in the scholarship of teaching, with a slight critical twist. *Higher Education Research & Development, 34*(3), 568-580. https://doi.org/10.1080/07294360.2014.973384.

Krsmanovic, M., Cox, T. D., & Johnson, J. D. (2020). Who improves most? The differences in first-year students' learning attitudes and behaviours measured by College Success Factor Index. *Journal of the Scholarship of Teaching and Learning*, *20*(2). https://doi.org/10.14434/josotl.v20i2.27446.

Larsson, M., Mårtensson , K., Price, L., & Roxå, T. (2020). Constructive friction? Charting the relation between educational research and the scholarship of teaching and learning. *Teaching and Learning Inquiry*, *8*(1), 61–75. https://doi.org/10.20343/teachlearninqu.8.1.5.

Leavy, P. (2022). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches* (2nd ed.). New York: The Guilford Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Macfarlane, B. (2011). Prizes, pedagogic research and teaching professors: Lowering the status of teaching and learning through bifurcation. *Teaching in Higher Education*, *16*(1), 127-130. https://doi.org/10.1080/13562517.2011.530756.

Macnaught, L. (2021). Demystifying reflective writing in teacher education with semantic gravity. In C. Winberg, S. McKenna, & K. Wilmot (Eds.), *Enhancing teaching and learning with Legitimation Code Theory* (pp. 19-36). London: Routledge.

Maisuria, A., & Helmes, S. (2019). *Life for the academic in the neoliberal university*. London: Routledge.

Manarin, K., & Abrahamson, E. (2016). Troublesome knowledge of SoTL. *International Journal for the Scholarship of Teaching and Learning, 10*(2), Article 2. https://doi.org/10.20429/ijsotl.2016.100202.

Manarin, K., Adams, C., Fendler, R., Marsh, H., Pohl, E., Porath, S., & Thomas, A. (2021). Examining the focus of SoTL literature: Teaching and learning? *Teaching & Learning Inquiry, 9*(1). http://dx.doi.org/10.20343/teachlearninqu.9.1.23.

Marshall, D. T., Love, S. M., & Scott, L. (2020). "It's not like he was being a robot": Student perceptions of video-based writing feedback in online graduate coursework. *International Journal for the Scholarship of Teaching and Learning, 14*(1), Article 10. https://doi.org/10.20429/ijsotl.2020.140110.

Martin, J. L. (2016). Musicality and musicianship: Specialisation in jazz studies. In K. Maton, S. Hood, & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 193–213). London: Routledge.

Maton, K. (2000). Languages of legitimation: The structuring significance for intellectual fields of strategic knowledge claims. *British Journal of Sociology of Education, 21*(2), 147-167. https://doi.org/10.1080/713655351.

Maton, K. (2014). *Knowledge and knowers: Towards a realist sociology of education*. London: Routledge.

Maton, K., & Chen, R. T-H. (2016). LCT in qualitative research: Creating a translation device for studying constructivist pedagogy. In K. Maton, S. Hood, & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory*. London: Routledge.

Maton, K., Hood, S., & Shay, S. (Eds.). (2016). *Knowledge-building: Educational studies in Legitimation Code Theory*. London: Routledge.

Maton, K., & Moore, R. (2009). *Social realism, knowledge and the sociology of education.* London: Bloomsbury.

McKenna, S. (2014). Higher education studies as a field of research. *The Independent Journal of Teaching and Learning, 9*(1), 6-16. https://hdl.handle.net/10520/EJC161436.

McKenna, S., Quinn, L., & Vorster, J. (2018). Mapping the field of Higher Education Research using PhD examination reports. *Higher Education Research & Development, 37*(3), 579-592. https://doi.org/10.1080/07294360.2018.1428178.

McKinney, K. (2010). *Enhancing learning through the scholarship of teaching and learning: The challenges and joys of juggling*. Bolton, MA: John Wiley & Sons.

Meyer, J., & Land, R. (Eds.). (2006). *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*. London: Routledge.

Miller-Young, J., & Yeo, M. (2015). Conceptualising and communicating SoTL: A framework for the field. *Teaching and Learning Inquiry, 3*(2), 37–53. https://doi.org/10.20343/teachlearninqu.3.2.37.

Myers, G. 1990. *Writing biology: Texts in the social construction of scientific knowledge*. Madison, WI: University of Wisconsin Press.

Nelson, C. (2010). Dysfunctional illusions of rigor: Lessons from the scholarship of teaching and learning. *To Improve the Academy, 28* (1), 177-192. https://doi.org/10.1002/j.2334-4822.2010.tb00602.x.

Pechenkina, E. (2020). Chasing impact: The tale of three SoTL studies. *Teaching and Learning Inquiry*, *8*(1), 91–107. https://doi.org/10.20343/teachlearninqu.8.1.7.

Perkins, D. (2006). Constructivism and troublesome knowledge. In J. H. F. Meyer & R. Land (Eds.). *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 33-47). London: Routledge.

Potter, M. K., & Raffoul, J. (2023). Engaged alienation: SoTL, inclusivity, and the problem of integrity. *International Journal for the Scholarship of Teaching and Learning*, *17*(1), Article 2. https://doi.org/10.20429/ijsotl.2023.17102.

Potter, M. K., & Wuetherick, B. (2015). Who is represented in the teaching commons? SoTL through the lenses of the arts and humanities. *The Canadian Journal for the Scholarship of Teaching and Learning*, *6*(2). https://doi.org/10.5206/cjsotl-rcacea.2015.2.2.

Rashid, R., & Lim, M. X. (2020). Redesigning a PhD course to promote interdisciplinarity and cultivate key 21st-century skills: An exploratory study. *Asian Journal of the Scholarship of Teaching and Learning, 10*(2). 171-189. https://ctlt.nus.edu.sg/ajsotl-volume-10-no-2/.

Roxå, T., Olsson, T., & Mårtensson, K. (2007). *Scholarship of Teaching and Learning as a strategy for institutional change*. In Proceedings of the 30th

HERDSA annual conference: Enhancing higher education, theory and scholarship (p. 487). July 8-11, Adelaide, Australia.

Servage, L. (2009). The Scholarship of Teaching and Learning and the neo-liberalisation of higher education: Constructing the "entrepreneurial learner". *Canadian Journal of Higher Education, 39*(2), 25-44. https://doi.org/10.47678/cjhe.v39i2.484.

Shulman, L. S. (1993). Teaching as community property: Putting an end to pedagogical solitude. *Change: The Magazine of Higher Learning*, *25*(6), 6-7. https://doi.org/10.1080/00091383.1993.9938465.

Silverman, R. M., & Patterson, K. (2014). *Qualitative research methods for community development.* London: Routledge. https://doi.org/10.4324/9781315797762.

Simmons, N., Abrahamson, E., Deshler, J. M., Kensington-Miller, B., Manarin, K., Morón-García, S., Oliver, C., & Renc-Roe, J. (2013). Conflicts and configurations in a liminal space: SoTL scholars' identity development. *Teaching and Learning Inquiry, 1*(2), 9–21. https://doi.org/10.20343/teachlearninqu.1.2.9.

Sword, H. (2009). Writing higher education differently: A manifesto on style. *Studies in Higher Education, 34*(3), 319-336. https://doi.org/10.1080/03075070802597101.

Tierney, A. M., Aidulis, D., Park, J., & Clark, K. (2020). Supporting SoTL Development through Communities of Practice. *Teaching and Learning Inquiry, 8*(2), 32–52. https://doi.org/10.20343/teachlearninqu.8.2.4.

Tight, M. (2018). Tracking the Scholarship of Teaching and Learning. *Policy Reviews in Higher Education, 2*(1), 61-78. https://doi.org/10.1080/23322969.2017.1390690.

Tight, M. (2019). *Higher education research: The developing field*. London: Bloomsbury Academic. http://dx.doi.org/10.5040/9781474283779.

Trigwell, K. (2021). Scholarship of teaching and learning. In L. Hunt & D. Chalmers (Eds.), *University teaching in focus: A learning-centred approach* (2nd ed.) (pp. 286-303). London: Routledge.

Trowler, P. (2009). Beyond epistemological essentialism: Academic tribes in the twenty-first century. In C. Kreber (Ed.), *The university and its disciplines: Teaching and learning within and beyond disciplinary boundaries* (pp. 181-195). London: Routledge.

Vorster, J., & Quinn, L. (2015). Towards shaping the field: Theorising the knowledge in a formal course for academic developers. *Higher Education Research & Development, 34*(5), 1031-1044. https://doi.org/10.1080/07294360.2015.1070126.

Webb, A. S. (2016). Threshold concepts and the scholarship of teaching and learning. In R. Land, J. H. F. Meyer, & M. T. Flanagan (Eds.). *Threshold concepts in practice*. Rotterdam: Sense Publishers.

Webb, A.S. (2020). Riding the fourth wave: An introduction to the scholarship of teaching and learning. In R. Plews & M. Amos (Eds.). *Evidence-based faculty development through the scholarship of teaching and learning.* (pp. 1-19) IGI Global. https://doi.org/10.4018/978-1-7998-2212-7.ch001.

Webb, A. S., & Tierney, A. M. (2020). Investigating support for scholarship of teaching and learning: We need SoTL educational leaders. *Innovations in Education and Teaching International, 57*(5), 613-624. https://doi.org/10.1080/14703297.2019.1635905.

Williams, K. F. (2009). 'Guilty knowledge': Ethical aporia emergent in the research practice of educational development practitioners. *London Review of Education*, *7*(3), 211-221. https://doi.org/10.1080/14748460903290074.

Wilmot, K. (2020). Learning how to theorise in doctoral writing: A tool for teaching and learning. In C. Winberg, S. McKenna, & K. Wilmot (Eds.),

Enhancing teaching and learning with Legitimation Code Theory (pp. 126-141). London: Routledge.

Winberg, C., McKenna, S., & Wilmot, K. (Eds.). (2020). *Building knowledge in higher education*. London: Routledge.

Wolff, K. (2020). From principle to practice: Enabling theory-practice bridging in engineering education. In C. Winberg, S. McKenna, & K. Wilmot (Eds.), *Building knowledge in higher education*. London: Routledge.

Young, M. (2007). *Bringing knowledge back in: From social constructivism to social realism in the sociology of education*. London: Routledge.