

Chapter 16

Insights Into an Interdisciplinary Project on Critical Reflection in Nursing: Using SFL and LCT to Enhance SoTL Research and Practice

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ABSTRACT

The chapter provides a description of the first stage of an SoTL project consisting of an interdisciplinary research collaboration between nursing disciplinary experts from the Alice Lee Centre for Nursing Studies (ALCNS) and academic literacy experts from the Centre for English Language Communication (CELC) at the National University of Singapore (NUS). This stage includes the creation of appropriate lesson material for teaching critical reflection drawing on Focus Group Discussions (FGDs) with nurs-

ing lecturers and the use of ‘model’ reflective writing texts from high-scoring students in past cohorts analysed using Systemic Functional linguistic frameworks such as genre pedagogy, appraisal, The Legitimation Code Theory tool of semantic waves. The intervention was designed to improve the highly valued skill of ‘critical reflection’ in nursing undergraduate clinical modules drawing on the use of rigorous theoretical frameworks that make visible salient linguistics resources and knowledge practices drawing on SFL and LCT.

INTRODUCTION

This chapter provides a description of the first stage of a SoTL project titled *Reflecting in Undergraduate Nursing: An Interdisciplinary Approach to Embedding Critical Reflection in Undergraduate Nursing Practice*. The project is an interdisciplinary research collaboration between nursing disciplinary experts from the Alice Lee Centre for Nursing Studies (ALCNS) and academic literacy experts from the Centre for English Language Communication (CELC) at the National University of Singapore (NUS) that is supported by a Teaching Enhancement Grant from the university’s Centre for Development of Teaching and Learning.

In order to address the SoTL objective to show “how learning is made possible” (Trigwell et al., 2000) through reflection, the project aims to move beyond purely disciplinary understandings of teaching and learning to incorporating a “cross-disciplinary” (Kreber, 2013) description of how nursing students reflect on clinical practice in a manner that is valued by their subject lecturers. The cross-disciplinary collaboration was achieved by drawing on the insight of nursing lecturers in a FGD and the expertise of academic literacy experts through the analysis of student assignments for linguistic features and knowledge practices.

The two FGDs with nursing lecturers aimed to understand critical reflection in the discipline of nursing from the perspective of disciplinary experts. Questions were designed to uncover why nursing staff chose critical reflection as a type of assessment, what they thought the value of such reflections was for undergraduate nursing students, and finally, to understand what counts as “deep” reflection in the discipline. The FGDs were complemented by the analysis of the reflective writing texts from students. The text analysis addresses Shulman’s (2005) call for a “comparative study of signature pedagogies across professions” in order to “offer alternative approaches for improving professional education that might not otherwise be considered” (p. 58). To enhance the understanding of critical reflection in nursing clinical practice, texts were analysed through the use of rigorous theoretical frameworks of Genre (Martin & Rose, 2008) and Appraisal (Martin & White, 2005) (Systemic Functional Linguistic theory - SFL) to make visible salient linguistics resources in texts and semantic waves (Maton, 2014; Szenes, Tilakaratna, & Maton, 2015), and to make visible knowledge practices (Legitimation Code Theory - LCT) relevant to nursing reflective practice. SFL and LCT frameworks were employed to uncover deep critical reflection in undergraduate nursing because these two theoretical fields operate “side by side as analytical frameworks providing complementary analyses that are then integrated” (Maton & Doran, 2017, p. 613). The frameworks draw on the academic literacy experts’ knowledge of linguistics and knowledge practices and the analysis aims to provide nursing disciplinary experts an “alternative approach” to understanding critical reflection in nursing clinical practice.

The results from the first stage of the project are intended to inform an intervention to improve the highly valued skill of “critical reflection” in nursing undergraduate clinical modules.

Table 1. Phases of the SoTL project “Reflecting in undergraduate nursing: An interdisciplinary approach to embedding critical reflection in undergraduate nursing practice”

Project Phase	Activity	Activity Period	Month/Year
Phase 1 – Pre-intervention Student text analysis FGDs, and rubric development	Collection of student assignments and FGDs with lecturers	3 months	July - September 2018
	Analysis of student assignments and rubric development, training of lecturers, and feedback session on rubric	6 months	September – March 2019
Phase 2 – teaching intervention	Creation of online material for flipped classroom content	5 months	March – August 2019
	Intervention stage – delivery of online materials	18 months	August 2019 – December 2020
Phase 3 – Post-intervention Evaluation of project – student assignment analysis, analysis of FGDs with lecturers	Post-intervention data gathering	12 months	December 2019 - January 2021
	Post-intervention evaluation of data	9 months	August 2020- Mar 2021
	Final changes to the lesson material based on post-intervention results	6 months	Jan -Jun 2021

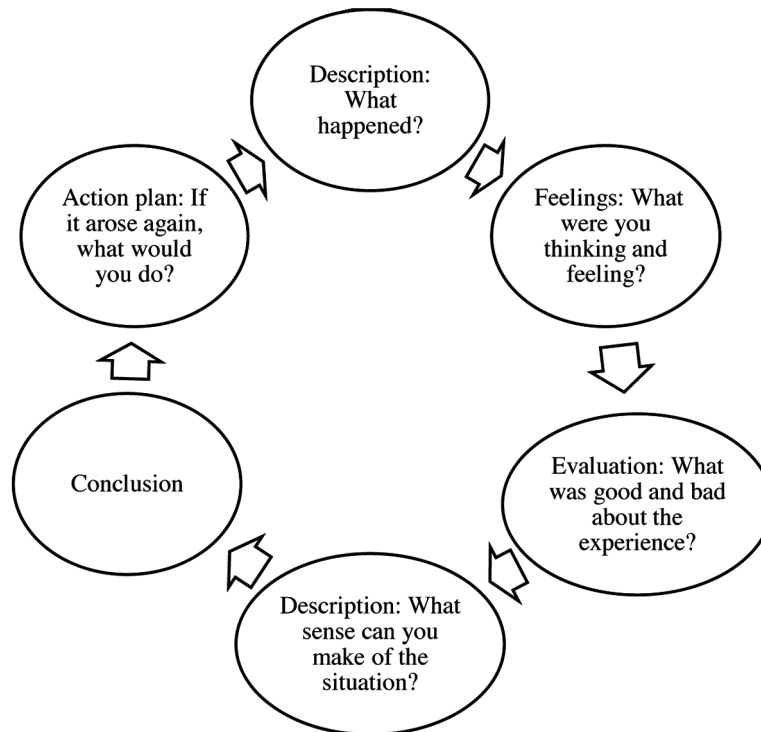
A more detailed description of the phases of the ongoing project is outlined in Table 1.

In sharing the results from the first stage of the project, this chapter aims to address one of the concerns in SoTL literature: for disciplinary research to be made transparent for public scrutiny to show how learning is made possible (Trigwell et al., 2000). We begin our article with a brief exploration of how reflective practice in nursing is valued in the context of professional nursing and how it is conceptualised from a disciplinary perspective. This is followed by an introduction to the SFL and LCT frameworks used in this study and a description of the two data sets comprising the focus group discussions and critical reflection assignments. The remainder of the chapter will focus on explaining how the detailed thematic analysis of the focus group discussions and coding of the linguistic resources and knowledge practices employed by undergraduate nursing students has led to more nuanced and detailed description of critical reflection in clinical nursing practice. We conclude by discussing how the data collection and analysis in Phase 1 of the project has facilitated the creation of appropriate lesson material for teaching critical reflection so that nursing undergraduate students will be able to draw valuable learning from their experiences and emerge as critically reflective practitioners in preparation for future clinical nursing practice.

Reflective Practice in Undergraduate Nursing

Supportive clinical learning environments and effective coaching by clinical educators are well-documented to have positively influenced student learning outcomes during clinical attachments (Tanda & Denham, 2009). Additionally, nurses in the clinical setting and nursing educators are aware that the clinical environment within which nursing education occurs is dynamic and encompasses complex variables. This means that students do not always have positive experiences in the clinical setting (O’Mara et al., 2013). Additionally, the authors acknowledge that educators can facilitate students’ capacities in reflection and generate ideas for coping and transforming future situations (O’Mara et al, 2013). Reflection is now regarded as an essential capacity and core to self-regulation and learning (Mann, 2016).

Figure 1. Adapted from Gibb's (1988) Reflective Cycle



Needless to say, nursing educators need to be developed first in order to adequately support the development of students' reflection skills. According to Dekker-Groen (2013), there is a growing consensus that effective professional development of academic teachers should include the following core features: content, active learning, coherence, duration, and collective participation (Desimone, 2009; Garet et al., 2001; Penuel et al., 2007). "Content" refers to knowledge about what the students should learn from their reflection and knowledge about the teaching activities required to support students' learning from their clinical experiences. Moreover, providing feedback on students' reflection by the academic teacher or clinical facilitator is identified as one of the key strategies used to facilitate meaningful reflection. Therefore, the goal is for students to eventually develop critical thinking and social awareness in the process of thinking about and interpreting situations, events, experiences, and emotions that have occurred.

Recent research on critical reflection in the ALCNS Bachelor of Nursing programme identified that students write reflections that are predominantly descriptive in nature despite the use of frameworks such as Gibb's (1998) "Reflective Cycle" as a model for the process of reflection (Wu et al., 2016a; Wu et al., 2015). Gibb's (1988) Reflective Cycle, a well-known framework in this field (see studies from Burns et al., 2000; Husebø et al., 2015; and Reid, 1993; Wu et al., 2015; and Wu et al., 2016), is used as a model to guide critical reflections and includes six stages: *Description* of the experience; *Feelings* about it; *Evaluation* (positive and negative) of the experience; *Analysis* to develop understanding of it; *Conclusion*, describing learning and how the event might have been differently managed; and *Action plan*, telling how a different approach might be taken in the future if this problem emerges again. This last criterion implies that practitioners experience a transformation in their practice. Figure 1 provides a visual representation of this model.

Insights Into an Interdisciplinary Project on Critical Reflection in Nursing

The first stage of the project attempts to address the lack of depth in undergraduate critical reflection at the ALCNS by asking the following research questions:

What constitutes “deep reflection” in clinical nursing practice?

How can we make “deep reflection” explicit and visible in creating effective pedagogic interventions?
How can we identify the impact and outcome of teaching “deep reflection” through measuring student learning?

To address these questions, academic literacy experts drew on selected analytical frameworks from Systemic Functional Linguistics (SFL) and Legitimation Code Theory (LCT). In the section below, we begin by introducing the theoretical frameworks used in this project, starting with a description of SFL and the two analytical frameworks of *Genre* and *Appraisal* that were used to explore how critical reflection in undergraduate nursing is structured and how the personal subjective engagement with evaluative meaning is enabled through the use of a range of resources as revealed through the analysis of high-scoring texts. This is followed by an introduction to LCT analytical tool of *Semantics* with a focus on semantic gravity, which is used to account for how students move between the concrete particulars of the specific incident encountered in their reflections and nursing theories, the practices and procedures that they draw on to interpret this particular incident. In addition to the introduction to the analytical frameworks which demonstrate how academic literacy experts can unpack disciplinary meanings in texts, insights into critical reflection in undergraduate nursing are discussed with reference to extracts from the nursing Focus Group Discussions. The ‘Results and Discussion’ section below will discuss the preliminary findings from applying SFL/LCT analyses to a corpus of student texts. Extracts from high-scoring texts are produced to demonstrate how students deploy linguistic resources and knowledge practices to demonstrate their capacity for “deep reflection” in undergraduate nursing.

Theoretical Frameworks and Analytical Findings

This section introduces the three analytical frameworks used to explore how students write critical reflection texts in the discipline of nursing. The section begins with an overview of Systemic Functional Linguistics and introduces Genre theory and Appraisal. The section then introduces Legitimation Code Theory and the tool of semantic waves.

A Theory of Language: Systemic Functional Linguistics (SFL)

SFL theory is a theory of language developed by Michael Halliday and extended by a range of scholars (Halliday & Matthiessen, 2014; Martin, 1992; Martin & White, 2003) and is particularly interesting because of its conceptualization of language (and other semiotic systems) as context-dependent systems of choices. Decades of research have generated detailed descriptions of linguistic, or meaning-making, resources specific to various disciplinary discourse domains. Briefly, SFL allows for a systematic description of language at multi levels, from broad context (genre), whole text systems and paragraphs (Discourse Semantics) to sentence level (Lexicogrammar). Secondly, SFL describes language as performing three broad functions concurrently: engaging a range of linguistic resources to discuss the topic, to communicate meanings related to social relations between interactants, including evaluative meanings, and to produce a text that develops cohesively. Academic discourse deploys these meanings differently

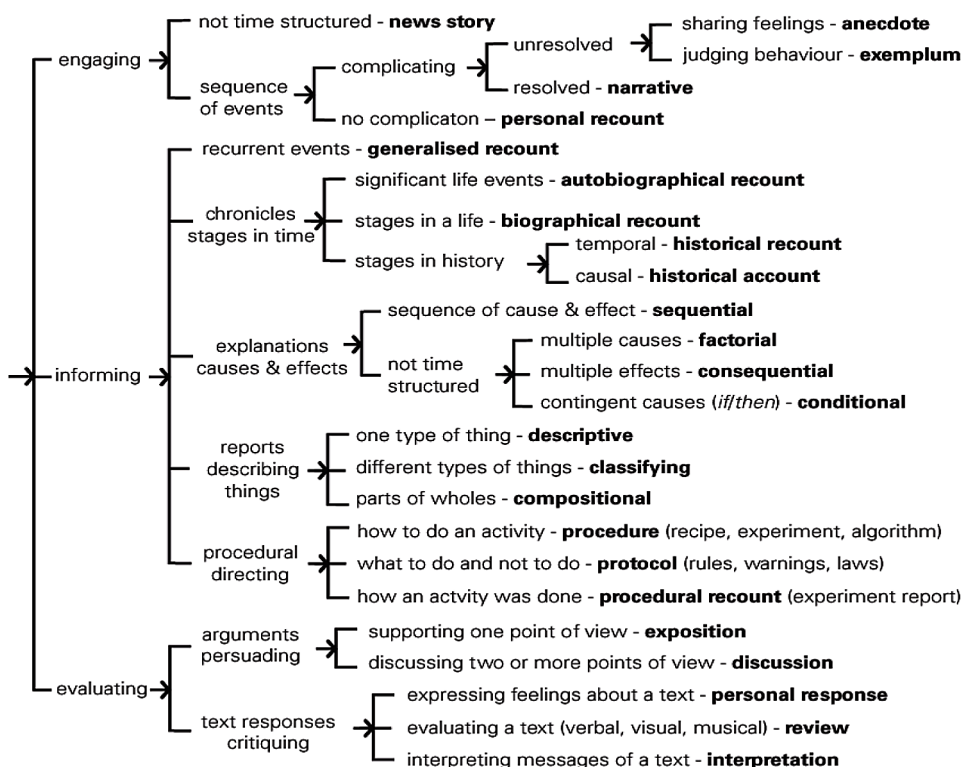
according to disciplinary contexts, specific assignments, and stages of these assignments. These insights from SFL, therefore, allow for a systematic description of different patterns of language from whole texts to sentences and in various specific contexts. This represents a significant shift from a more traditional approach to language which tends to prioritize sentence level issues and grammatical accuracy rather than a focus on the way language is used to create expected meanings. SFL has been used in a wide range of higher educational SoTL research (Dreyfus et al., 2016; Coffin & Donohue, 2014) as well as specific rubric development work (Jones, 2011; Szenes, 2011; Dreyfus et al., 2016).

In this study, SFL enabled us to reveal the language patterns recurrent in high scoring critical reflection assignments and to compare them with low and mid-scoring assignments. These findings were then used to make the patterns visible to the nursing lecturers and to students through a range of academic literacy materials and rubrics.

The Structure of Critical Reflection: Genre Theory

In Systemic Functional Linguistics, the term *genre* refers to unfolding text which follows stages and recognizable patterns which social actors deploy to achieve a certain goal (Martin & Rose, 2008). Genre is defined as a “staged, goal-oriented social process” (Martin & Rose, 2007, p.8). Martin and Rose (2007), among others, have classified common elemental genres according to social purposes. These elemental genres are classified into three broad social purpose categories: engaging, informing, and

Figure 2. Knowledge genres in the school
(Rose & Martin, 2014, p.276)



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evaluating (Rose & Martin, 2012, p.128). The figure below shows the complete School genres taxonomy which includes narratives, different types of explanation genres, procedures, classifying, descriptive and compositional reports, expositions, discussions, and more. Each genre is then described for its typical structural elements, or stages, which can be obligatory or optional. These stages tend to occur in a specific, expected order in the text to serve a specific purpose and achieve the goal of the text. The typical resources deployed in each stage at various levels of language (whole texts/Discourse Semantics, and sentence level/Lexicogrammar) can then be described.

SFL researchers have mapped genres for several school subjects, such as English and Literature (Christie & Macken-Horarik, 2007; Rothery & Stenglin, 1997), History (Coffin, 2006; Schleppegrell, 2004); Geography (Wignell, Martin, & Eggins, 1989) and Science (Halliday & Martin, 1993; Lemke, 1990). In higher educational settings, these elemental genres often combine into extended texts, or macro genres, which combine several elemental genres in various logical relations to achieve a social purpose (Dreyfus et al., 2016; Martin & Rose, 2008). For example, Dreyfus et al. (2016) describe the undergraduate Biology lab report as a macro-genre because it contains several elemental science genres such as descriptions and classifications, as well as analytical exposition and explanations. Nesi & Gardner (2012) compiled and analysed the BAWE corpus, a collection of postgraduate and undergraduate student assignments in a range of disciplines from universities in the UK to map the types of writing requirements and to highlight commonalities and differences across assignment types and disciplines. The authors classified assignments according to their social purpose into 13 genre families which bridge discipline boundaries: *Essay, Methodological Recount, Critique, Explanation, Case Study, Exercise, Design Specification, Proposal, Narrative Recount, Research Report, Problem Question, Empathy Writing, and Literature Survey*.

The critical reflections written by health students in the BAWE corpus are classified in the Narrative Recount family. The social purpose of assignments in the Narrative Recounts is to “demonstrate knowledge of the field of study, critical thinking and the ability to apply appropriate methods of enquiry” (Nesi & Gardner, 2012, p. 214). The social purpose of these types of assignments is also to demonstrate or develop awareness of motives and/or behaviours (Nesi & Gardner, 2012, p. 42) and to evaluate one’s (or others’) behaviours and actions, involving an affective dimension. This affective dimension, as Nesi and Gardner (2012) explain, can be challenging for students when relating, for example, to an admission of mistake or weakness. In the BAWE corpus, reflection assignments aim to show that the student can reflect and evaluate elements of knowledge or behaviours and use academic reading or experimental data to support this evaluation. The student then explains how this experience is likely to alter their future practice. Nesi and Gardner (2012) show that, in their corpus, 25% of the occurrences of the word *insight* are in the Narrative Recount genre family.

Szenes et al. (2015) have described the following stages for similar reflection assignments in Social Work, which we draw on.

- Introduction—where the student discusses the importance of reflection
- Critical Incident—in which the student describes a problematic event which triggered the reflection
- Excavation—where the student unpacks the critical incident, explains it, rationalizes, or evaluates her actions
- Transformation—in which the student discusses the lesson learned, and the need to change in the future
- Coda—which sees the student reconnecting the importance of critical reflection

Drawing on this theoretical framework, genre patterns in the high, low and mid critical reflection assignments were analysed. The focus group data then showed the generic patterns which were particularly valued by lecturers. We asked the following questions:

- What kind of genre is the reflection assignment in Nursing?
- What is the generic structure?
- Which stages are obligatory, and which stages are not?
- What weighting do the stages have in the different low-mid-high scripts?

The findings are discussed in the section on ‘Results and Discussion’ below.

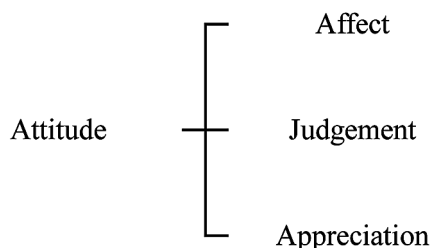
Emotion and Opinion in Critical Reflection: The Appraisal Framework from Systemic Functional Linguistics

Appraisal is used in this project to make visible evaluative meaning and its targets or sources, as well as how an accumulation of these resources can create an “evaluative key” (Hood, 2006, p. 38) of positive or negative values built up over the course of a high-scoring critical reflection assignment.

The appraisal framework developed by Martin and White (2005) consists of three interacting domains of Attitude, Graduation, and Engagement. Attitude, shown in Figure 3 below, consists of emotions (Affect), judgments of behaviour (Judgement) and evaluation of things (Appreciation). Graduation is a resource for grading evaluation through amplifying feelings or blurring categories (Martin & White, 2005, p. 35). Finally, Engagement deals with the source of Attitude and how it is managed within text.

In more common sense terms, we can distinguish between regions of Attitude as types of emotion and opinion. “Emotion” refers to attitudinal assessments that are indicated through descriptions of “emotional reactions” or “states of human subjects” while “opinion” refers to “positive or negative assessments” (White, 2004). Bednarek (2009) draws on this distinction to classify Affect as types of emotion, while Judgement and Appreciation are classified as forms of opinion. Emotions as realised by resources of Affect expressed as positive or negative feelings such as happiness/unhappiness, security/insecurity, and satisfaction/dissatisfaction (e.g., *I feel nervous about bathing the patient*). Emotions are often triggered by something; in the case of reflective writing in nursing, this is the specific incident or situation that students are engaged in (e.g., assisted bathing of patients). In addition, the person who feels the Affect, or the “Emoter” in the case of the nursing reflections, is predominantly the student but can also extend to the patient.

*Figure 3. The domain of attitude
(adapted from Martin & White, 2005, p. 35)*



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The second type of evaluative meaning that is prevalent in reflective writing is Judgements of behaviour. Judgements can be subdivided into types of “social esteem” that are concerned with normality (how un/usual someone is), capacity (how capable they are), and tenacity (how resolute they are) (e.g., *The clinical instructor helped me to bathe the patient*). The second type is “social sanction”, which is associated with values that underpin “civic duty and religious observances” (Martin & White, 2005, p. 52). It includes two types: veracity (how truthful someone is) and propriety (how ethical someone is). Judgements typically involve a Target towards whom the judgement is directed (e.g., I *should have covered the patient while they were changing their clothes*).

Tilakaratna and Szenes (2017; 2019) have drawn on Appraisal to show how students engage with emotions and opinions in reflective writing in fields such as business and social work in the context of an Australian university. Their research has revealed that students in these disciplines focus on negative emotions and negative opinions, which are triggered by their insecurity regarding the incident that they chose to reflect on. In addition, their research has found a high level of negative self-judgement across the texts. The extension of this research to the context of NUS, in the exploration of subjects such as Public Communication, English for Academic Purposes, and Engineering by Tilakaratna, Brooke, and Monbec (2019) has revealed that students in Asian contexts focus on both negative incidents and negative self-judgement as well as *positive* self-judgement in relation to their transformation over the course of their studies. Particularly significant is the role that mentors play in the development of professional behavior.

Below, the tool of semantic gravity in Legitimation Code Theory is introduced. Semantics explores how students move between the concrete particulars of an incident that triggered reflection and relate this to principles, procedures, and theories relevant to clinical nursing practice.

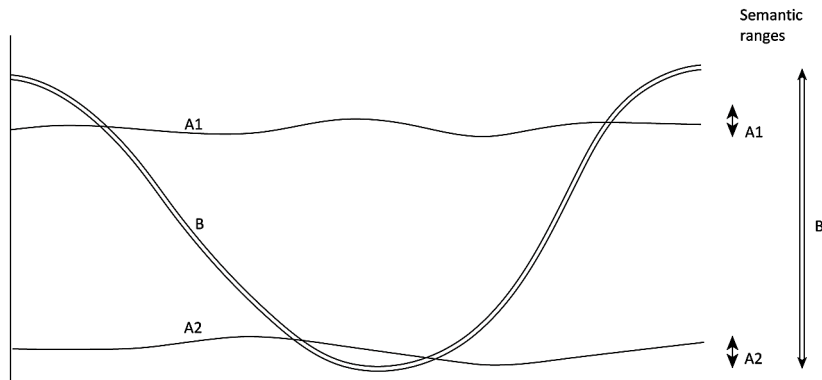
Abstraction and Concreteness in Critical Reflection: Semantic Gravity from Legitimation Code Theory

Legitimation Code Theory (LCT) is a framework for analysing principles of practice in educational fields to reveal the “rules of the game”. LCT seeks to make these codes visible so that they may be taught and learned to lead to academic achievement. semantics gravity from LCT explores the DNA of knowledge and the codes that may enable knowledge-building. Semantic gravity (SG+/-) is defined by Maton (2013) as:

The degree to which meaning relates to its context, whether that is social or symbolic. Semantic gravity may be relatively stronger (+) or weaker (-) along a continuum of strengths. The stronger the semantic gravity (SG+), the more closely meaning is related to its context; the weaker the gravity (SG-), the less dependent meaning is on its context. (p. 65)

Semantic gravity conceptualizes the degree to which meanings relate to context. A continuum is used to map how these meanings may move from stronger to weaker or from weaker to stronger context-dependency. To exemplify, Maton (2013) describes how the name for a specific plant in Biology or a specific event in History are knowledge structures that are specific and therefore embody stronger semantic gravity. In contrast, a species of plant or theory to explain historical events such as historical causation embody weaker semantic gravity as these are meanings that are more generic and transferable across contexts. If the knowledge structure is transferable across contexts, and can be used to analyse different

*Figure 4. Illustrative profiles and semantic ranges
(adapted from Maton, 2013, p. 13)*



phenomena, it can represent the accumulation of knowledge or knowledge building. The shifts from SG- to SG+ or SG+ to SG- produce semantic gravity waves. These waves are presented below as profile B:

Analysts can record this process of gravity waving on a graph as above and construct a visual representation or semantic gravity profile indicating semantic gravity ranges. In addition to waves, flatlines can be recorded as profiles with very limited range (refer to A1 and A2 in Figure 1) to represent consistently abstract or concrete knowledge structures. Additionally, “down escalators” (Figure 2) or steep slopes downwards with meanings starting in abstraction but then shifting quickly to concrete meanings, can be depicted. Similarly, “up-escalators” can be mapped if meanings shift from the concrete to the very abstract. For both the “down escalators” and “up-escalators”, meanings are not being connected across contexts. This represents “segmented learning” rather than “cumulative learning” (Maton, 2013).

Szenes, Tilakaratna, and Maton (2015) present how valued critical reflection assignments from Social Work and Business Faculty students during practicum experiences produced complex semantic gravity profiles shifting between meanings on the semantic gravity continuum. The following is provided as a highly-scored reflection:

In my incident, the emerging themes that I believe warrant further investigation relate to professional practice, namely the issue of boundaries, gender, and power. The irony of my distinction only becomes clear now. While I expect to be able to put on a professional “mask”, consisting of the professional skills and knowledge of social work practice when working with clients, I expect clients like Jared to “bare all”, to reveal to me their personal problems, issues, and insecurities. Sommers-Flanagan and Sommers-Flanagan (2007) refer to this concept as “one-way intimacies” (Sommers-Flanagan & Sommers-Flanagan, 2007, p. 163), and as a necessary component of helping relationships. (pp. 580-581)

In this example, there is an interplay between knowledge structures that are both abstract and concrete. The subjects of gender and power represent weaker semantic gravity as these are abstract terms with multiple meanings. Information relating to personal experience through a short narrative represents relatively stronger semantic gravity. The writer refers to a specific individual, a very context-dependent knowledge structure. The reflection then moves back to more generalized meanings with the notion of “one-way intimacies” accompanied with an academic source (Sommers-Flanagan & Sommers-Flanagan,

2007, p. 163). Again, this is less context-dependent as it is an analytical tool for viewing human relations across contexts and thus a more general meaning is realised. It is possible for another reflector to apply the same analytical tool to another related or different context or use another tool for the same context, and so on. To sum up, it can be observed that as it shifts along the semantic gravity continuum, the valued discourse is creating semantic gravity waves. In this project, the authors sought to uncover whether similar profiles were present and valued in the same way and to uncover the types of subject matter that were discussed along the continuum.

Description of the Data

For the first phase of the project, two types of data were collected: student reflective writing assignments from the cohort of undergraduate nurses undertaking clinical practice units and Focus Group Discussions involving the nursing lecturers. These two data sets are described in greater detail below.

Critical Reflection Assignments for Clinical Nursing Practice

Critical reflection forms an important component of clinical practice experiences that are at the core of the Alice Lee Centre for Nursing Studies (ALCNS) Bachelor of Science (BSc) (Nursing) programme, which has incorporated core concepts of health, person, environment, and nursing. At ALCNS, clinical practice enables students to develop clinical skills and professional competency through a structured programme that includes on-campus clinical laboratory learning and simulation experiences and is followed by end of semester clinical attachments in various Healthcare Institutes for a period of two to nine weeks. The primary aims of the BSc (Nursing) programmes are to prepare graduate nurses to be reflective, safe, competent, and caring nursing practitioners who exercise informed clinical judgement in the delivery of evidence-based care that will improve patient outcomes. To enable nursing students to emerge as critical thinkers capable of fulfilling the role of a self-reflective nursing practitioner, NUS nursing educators designed individual critical reflection writing tasks to reveal how students engage and learn from difficult clinical experiences. The tasks are assessed in a module and the specific assessment criteria for critical reflection in the unit *Fundamentals of Nursing* are described below.

Description of the Module (Fundamentals of Nursing)

The Fundamentals of Nursing is the first nursing module undertaken by the undergraduate during their first year of study. The module focuses on the development of foundation knowledge and skills for the provision of nursing care to patients in a variety of health care settings. The focus is on enabling the patient and the nurse to confidently and competently assess, plan, implement, and evaluate care around the fundamental care needs.

To improve the realism for learning, a new initiative to allow the year one students to have hands-on clinical experience during their first semester was implemented. This arrangement was made in 2018 for the first-year students to integrate the theory to practice, through applying what they have learnt on the real patients in hospital during the semester. This programme was added with the emphasis on bridging the theory-practice gap in collaboration with a tertiary hospital in Singapore. The programme allowed the first year students to have six hours in learning about person-centred care and various clinical procedures in simulated clinical wards, and apply what they had learnt for four hours at the hospital. They

Table 2. Marking criteria for reflection assignment

Reflection Assignment
Procedure/ Activity performed: _____
(1) Gibb’s Reflective Model <ul style="list-style-type: none"> ● Description of the encounter, experience, or any problem that arose during the clinical visitation ● Feelings and Reflection: Identify your assumptions, values, beliefs, emotions, and motives based on your experience ● Evaluation of the performance and experience. Analysis of the deeper meanings from a different perspective (including feedback from tutor/peer). Research using academic references or literature (minimum of 5). Synthesise and integrate the information to complement a broader discussion. ● Conclude and integrate how the experience informs nursing practice. Plan of action for future encounters. <ul style="list-style-type: none"> - Focus on knowledge issues - Links and comparisons between one’s performance and standard procedure - Shows relevance and sophisticated understanding
(2) Knower’s perspective <ul style="list-style-type: none"> ● Displays independent learning ● Self- awareness with different perspectives ● Uses varied appropriate examples
(3) Analysis of knowledge issues <ul style="list-style-type: none"> ● Shows insight and depth of topic ● Main points well-justified ● Arguments and counter-arguments are justified
(4) Organisation of ideas <ul style="list-style-type: none"> ● Well-structured with key ideas explained ● Factual accuracy ● APA (6th ed.) reference guide

then returned to the on-campus clinical laboratory for another four hours of skills training, followed by a second hospital field visit to provide care for the patients, working alongside the ward nurses and clinical instructors.

At the hospital, two to five students shadowed a registered or enrolled nurse and assisted in providing fundamental care under supervision. The students communicated with the patients, and participated in many aspects of patient care, such as assisting in bathing, feeding of patients and taking care of patient’s hygiene needs. They also conducted assessment such as taking vital signs, assessing the patients’ skin condition, and assisting in wound care. The sessions included 270 students and ran over eight weekends.

Assessment, Rubrics, and Student Cohort: Frameworks Used

After eight hours of clinical experience, the students were required to write a reflection journal on what they had learnt from the patient care experience and how they could do better in the future. Reflective learning is a process in which students learn about themselves and make sense of the deep learning experience (Kolb, 1984). Schon (1983) defined reflective practice as having the capability to reflect in action while doing, and after an action has been performed. In order to enable this process, Kolb (1984) created a cyclical model, which involves critical evaluation of learners on their learning. Adapting and extending on Kolb’s model to include personal and subjective feelings, Gibbs’ Reflective Cycle, used by the nursing lecturers to teach reflective practice, starts with a description of the critical incident, examining feelings about the incident and evaluating the experience. This is followed by an analysis of the situation, reviewing potential actions to improve the situation, and finally, identifying areas in which students require further development.

Reflective learning is critical in building capacity to restructure and reframe knowledge, and it develops the students as independent learners. The marking criteria is shown in Table 2.

Focus Group Discussions (FGD)

The rationale for the FGDs was to enable nursing faculty and education/ literacy experts to meet together and produce data to make visible what is valued as successful critical reflection in the nursing faculty. This was done to provide a platform for nurses to discuss their ideas from their own experiences, but also included a response to student nurse reflective journal samples supplied by the faculty prior to the meeting. Two sessions of FGDs lasting for about one hour each time were conducted. Each session comprised five or six different participants from the faculty. Thus, data from over 10 nursing faculty members were collected. These sessions were digitally recorded. They were then transcribed by a third-party research assistant, before being verified by one of the co-investigators. The two transcripts amounted to approximately 15,000 words in total. The content from the two focus groups was then coded thematically to reflect the values and concerns of the nursing lecturers. Before each focus group, education/ literacy experts asked members to reflect on questions about the importance of critical reflection and their opinions about the critical reflection assignment (see Appendix). After this stage, a set of three sample assignments (high, medium, and low-scoring papers marked by nursing tutors) were discussed. Nursing faculty discussed what they valued in the high scoring paper and what could be improved in the other two. Again, these student assignments were shared with nursing lecturers before the meeting to allow them time to prepare what they wanted to share.

A number of topics were observed from the data collected. These topics were labelled and then relationships between them created to form categories. These categories were making the most of learning situations; ability to reflect critically by thinking back and forward effectively for personal growth; developing professionalism; making the most of nursing knowledge; maintaining physical and psychological balance; ability to communicate effectively.

RESULTS AND DISCUSSION

Below we discuss the key theoretical frameworks used in this study namely Genre (Martin &. Rose, 2008), Appraisal (Martin & White, 2005), and Semantics (Maton, 2014). We begin each section with key extracts from the focus group discussions where nursing lecturers identify aspects of critical reflection that are particularly challenging for students. We then highlight the findings from the Nvivo analysis which demonstrates how high-scoring students show their capacity to produce certain patterns of language and knowledge practices that constitute “deep reflection” in nursing clinical practice.

Genre – Structures of Reflective Texts – Obligatory and Optional Staging

During the focus group discussion, the nursing lecturers highlighted the key purpose of the reflection and the type of structure they expected and valued. For them, the assignment aims to cultivate a life-long habit of reflecting on practice; while in the shorter term, it provides the assessors with a window into the learning and thinking processes of the students. The nursing students’ critical reflections analyzed here clearly belong to the narrative recount genre family, more specifically narratives of personal experi-

Table 3. Stages in nursing critical reflection

Stages	Purpose	Key Linguistic Features
Introduction	General orientation of the Placement. The student may explain the importance of reflection in nursing. Orientation to the text (focus of the entity/procedure being reflected upon).	Factual description (place/time/length) Thesis statement type of sentence: use of will
Orientation	Description of the specific setting: the ward, the patient, the precise procedure.	Narrative/past simple and past continuous/ circumstantial
Critical Incident	Event that triggers the reflection is described.	Narrative/Past simple; evaluation
Excavation	Unpacking/analysis of the event; Making the thinking process visible; Link to relevant literature to explain/ hypothesize/rationalise	Shift to defining, thinking Present simple Citations
Transformation	Statement of alteration in the student's understanding. The student may explain how the experience will inform future nursing practice.	Modality Should or Will to indicate recommended future action
(Coda)	Emphasizing the role/importance of CR in nursing practice	General statement: present simple, definition of the role of a nurse.

ence. The reflections recount a temporal series of events, often describing the steps of a procedure the nursing student completed on a patient. The post-event recount allows the student to review and reflect on skills deployed during the procedure and to demonstrate to the nursing lecturer the way the activity has impacted the student. In our data set, the self-evaluation dimension described in Nesi & Gardner is also clearly present (discussed below).

The nursing lecturers also allude to text structure which they value, and to certain stages through which they expect the student to develop their texts. These comments are provided below as the generic stages are described.

The high-scoring scripts consistently presented the following 6 stages:

Introduction ^ Orientation ^ Critical Incident ^ Excavation ^ Transformation ^(Coda)¹

Table 3 shows the stages, their purposes, and the key linguistic features.

In the Introduction, successful writers succinctly state the placement location (Hospital, Ward) and then focus on the text itself, making a short statement on the value of reflection, and indicating what the text will specifically discuss:

I was placed in Hospital x. (3_133)

Hence, I will be focusing my / reflection on the assisted bath and assessment skills performed with reference to various aspects of the Entrustable Professional Activities (EPA) guideline. (3_133)

The Orientation discusses the specific and precise setting of the critical incident:

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One particular patient I would like to focus on is..., who had a history of...; he felt...

The Critical Incident describes the moment when the nursing student experience was “jolted” by an error made, which can be highlighted by the patient, or the senior nurse, or by the student himself. The incident could also take the form of a confusing event, where the student’s assumptions may, for example, be challenged. Beyond the factual description, the writer gives access to their inner thoughts as the critical incident unfolds, as shown in these two examples from the data:

I felt incompetent as I was unable to understand what emotion Mr. Tan was conveying (8_228)

My intention was simply to help, but later on I realised that I had unintentionally deprived him of opportunities for self-care (6-200)

Due to the space constraint in the cubicle, I was unable to assess Mdm X’s back thoroughly for any broken skin. At one point, I even caused slight discomfort to Mdm X while attempting to clean between her right toes (3-133)

In the FGD, nursing lecturers specified that they expect the critical event to be short and to simply highlight the problematic issue which will then be developed through the next stage.

The excavation stage is the key element of the task, according to the nursing lecturers, and takes the largest amount of text in the high-scoring scripts. This stage provides, according to a nursing lecturer, access to the thinking process of the student, as nicely expressed in this lecturer’s statement: “I like to read [reflection assignments] about things I couldn’t see. The thinking process is what I like to read in a reflection.” The student below shows the thinking process which led to her evaluating her skills as still needing to develop. While doing this, she thoughtfully acknowledged the challenges inherent to handling bathing of an elderly patient and shows the assessor that she is aware of the professional guidelines:

I felt that the negative experiences arose from my lack of knowledge in caring for a patient with limb fractures. For instance, because of my poor preparation, I often found myself thinking of what the next steps are. Yet I had to maintain a certain level of confidence so that Mdm X could entrust me in bathing her. Furthermore, the fear of causing more pain to her resulted in compromising the quality of care delivered. For instance, certain body parts such as her right foot and toes might not be thoroughly cleansed since I did not want to add pressure to them. However, according to the Core Competencies of Registered Nurse guidelines by the Singapore Nursing Board, it is the responsibility of a nurse to utilise her professional judgement and evidence-based knowledge to consistently and continuously deliver a holistic quality of care to the patients (Singapore Nursing Board, 2018). Hence it is important for us to use our critical thinking skills and ethical reasonings based on the Code for Nurses and Midwives to provide beneficence to the patients and advocate for their best interests (Singapore Nursing Board, 2018). After all, personal hygiene including bathing should not be neglected as it can help to reduce hospital-acquired infections. (Becker’s Clinical Leadership & Infection Control, 2106) (3_133)

In the FGD, the lecturers signal this stage as the most challenging for students in Year 1 and comment that many students *miss the opportunity for reflection* by simply stating a feeling or an observation, without going beyond the descriptive.

A lecturer explains:

...as the reader, I am interested to know why you were shy. [...]. Are there previous experiences which have triggered me to be so shy when I face similar episodes? [...] So to me, that is description. A lot of people can describe feelings but to examine why you feel this way is another level of reflection, which she has not demonstrate in this assignment.

The transformation, while often brief, tends to summarise the learning this experience has led to, and reaffirm the impact on the student nurse, and their future practice:

Hence some of future action plans I would consider that may help in minimising such resistance are: to administer analgesia prior to a bath if required, explain the procedure to the patient so that he/she can anticipate any impending discomfort, encourage patient to voice out his/her concerns and understand more about the patient's injury prior to the bath so I can be more organised and systematic to know the specific precautions to take on. In addition, I can also consider bed sponging as an alternative method if the patient strongly refuses assisted shower. (Lynn, 201 1) (3_133)

The Coda then lifts the discussion back to general nursing knowledge and to the benefit of critical reflection on professional nursing practice:

This attachment, albeit short, has given me a valuable insight to go beyond being a “robot nurse” who only performs the tasks but to be a critical thinker so that each patient's specific needs could be met. (3_133)

The stages in the high scoring reflections were characterized as follows:

Introductions were concise and factual. The Orientations were clearly focused on the one event or nursing skill reflected upon in the following text. The Critical Incidents are described concisely, precisely, and used as a springboard for the excavation to start. The Excavations are the longest stage of the text. The descriptions are concise, but the analysis, explanations, and conjectures are detailed and consistently linked with content of the module (literature, or expert knower). The link with the literature is genuine, and it is clearly relevant to the precise critical incident described. The Transformation stage was short in even the best scripts but precisely referred to an impact on future practice. Finally the Coda relates back to the benefit of Critical Thinking for general nursing practice, and is often omitted, even in the best scripts.

The section below explores how evaluative meaning is distributed across the three main stages of the critical reflection: Critical Incident, Excavation, and Transformation.

Emotions and Opinion in Nursing Reflective Texts

Emotions and evaluations are an important component of successful critical reflections. Research on critical reflection writing notes that reflective writing is concerned with “unsettling individual assumptions” and involves a certain amount discomfort or unease in order to motivate learning (Fook & Gardner, 2007, p. 16). Discomfort or unease with a particular “critical incident” or situation that students encounter often manifest in the assignment in the discussion of “emotions” (Passila & Vince, 2016, p. 48) or “personal and

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emotional concerns” (Crème, 2008, p. 60). Notably, many of the emotions discussed are predominantly negative in nature with students focussing on what went wrong or how they were emotionally affected by the difficult situation they faced (see, for instance, Tilakaratna & Szenes, 2017; 2019).

In the context of NUS nursing, the use of the Gibb’s framework explicitly foregrounds the use of emotion and evaluation in critical reflection assignments. Following the initial description phase of the reflective cycle in which students describe a particularly difficult or problematic incident that triggers the reflection, Gibb’s framework proposes that students engage with their feelings (e.g., “what were you thinking and feeling?”) and evaluate their experiences (“what was good and bad about the experience?”). In the FGDs, nursing staff indicated that “engaging with feelings” was a “very important” part of the reflective writing. They noted that:

If students did not digest or release their feelings, they may be stuck at that stage. We have to talk about the physical and psychological balance. If we didn’t take care of the psychological part, it would not be balanced and this would impact his/her future. If you talk about simulation and they have strong feelings about it, it is important to talk about it before they discuss other aspects objectively.

Importantly, nursing staff thus noted the need to engage with the psychological in order to move from the “subjective” to the “objective” aspects of nursing including engagement with the specific nursing procedures (such as assisted bathing) that form part of their clinical practice sessions as well as the nursing theories that support students’ learning of these particular procedures. It was also highlighted that the inability to move past emotionally difficult situations in clinical nursing practice would make it “difficult for [for students] to objectively reflect on what has happened if it has affected them emotionally... [t]here should be a good balance between the mind and heart part so students can adequately reflect and move from there to the next step.” Therefore, the engagement with emotions is considered an important step to objectively discussing the critical incident or difficult situation that students face in clinical practice and to evaluating their own and others’ behavior in the Critical Incident stage.

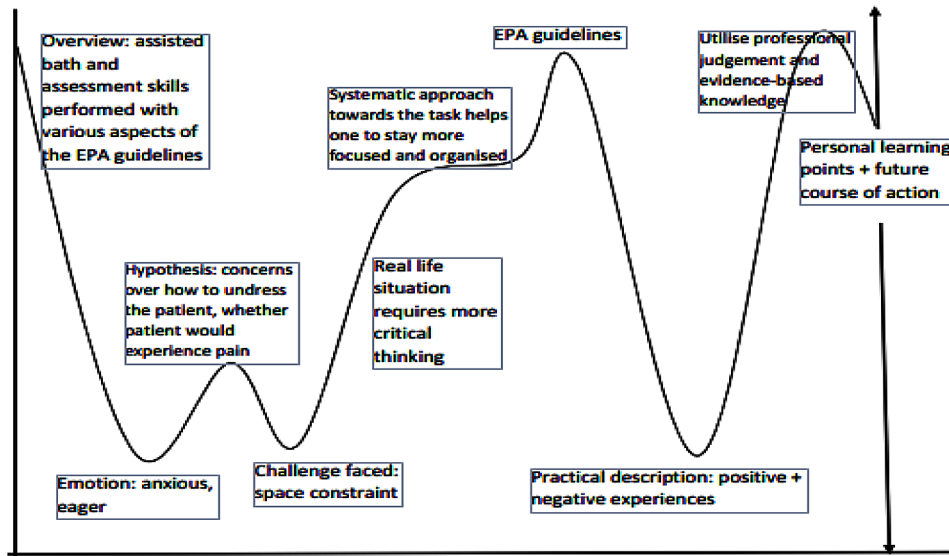
As emotions and opinions are primarily discussed in the Critical Incident, Excavation, and Transformation stages of the text, examples of how evaluation is deployed in these stages is explored in greater detail below.

Emotions are primarily discussed in the Critical Incident stage of the reflective texts to describe the event that triggers the reflection. Students typically use resources of negative affect to share their own feelings of insecurity (e.g., *anxious, concerns*) triggered by the patient’s condition or by the student’s lack of experience/abilities. In addition, students use neutral affect “surprise” to indicate “unsettling of assumptions” (e.g., I was *surprised* to learn that...).

While emotions typically refer to how the students feel in the clinical practice situation, they draw on resources of judgement to evaluate their own behaviour and the behaviour of significant others in the text such as Clinical Instructors, who are responsible for guiding and supporting them during their clinical placements. Notably, when referring to their own behaviour, students use resources of negative judgement to evaluate their lack of capacity (e.g., *that I could only assist Mdm X from the front*) in relation to the clinical procedure. Alternatively, they choose to positively evaluate the role of a Clinical Instructor (e.g., *my CI was patient, [she was] guiding me*) as a catalyst for positive behaviour (e.g., *[she] helped me to stay more organised and focused*).

In the Excavation stage, where the students unpack and analyse the specific incident that triggers reflection, the student may explain how a negative or difficult critical incident can have positive learning

Figure 5. Semantic gravity profile of a high-scoring (56/60) critical reflection paper



outcomes (e.g., *The whole experience was relatively positive*). The student may link this to their positive capacity (e.g., *I had managed to adhere closely to some parts of the guidelines of EPA 1-5; I also noticed and highlighted to CI*) or their negative capacity (e.g., *I was unable to assess Mdm X's back*). In addition, they may choose to delve deeper into their lack of capacity (e.g., *I felt that the negative experiences arose from my lack of knowledge*)

In the final stage of Transformation students produce statements of alteration in their understanding and explain how the experience will inform future nursing practice. Students use resources of modality (e.g., can, may, should, would) throughout the transformation—this shows a shift from past actions and analysis of these actions in the present to transformative behaviour in the future. The focus for nursing students is on expressing in the form of capacity with future orientation (e.g., *I can be more organised and systematic*).

In the highest-ranking scripts, the Transformation was present although often quite succinct, possibly showing that nursing students in their very first placement struggle to project themselves in the future as fully-fledged nurses. This is acknowledged by the nursing lecturers who describe how much the skill of reflection is acquired through time, and how difficult it can be for some nursing students to take the habit to question, probe, evaluate (excavation) and to apply, predict, and project (Transformation).

Semantics in Nursing Reflective Texts

Using semantic gravity to analyse the nursing experts' data as well as the critical reflections produced by nursing students helped to provide findings on practices that are valued. An example of a semantic gravity profile of a high-scoring (56/60) critical reflection paper is discussed below in Figure 5.

From the profile above, it is evident that the student-nurse shifts from the abstract theoretical to the concrete specific several times. At the weakest semantic gravity level (SG-) during the Introduction and Orientation stages, there is an overview of the Entrustable Professional Activities (EPA) paradigm. This

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is referred to as it relates to an experience during practicum. The nurse states that this was her “first experience in an assisted shower during the attachment” and how “prior to this attachment, [she] did not realise that a seemingly simple shower could involve so many nursing practices.” She then discusses the critical event of an assisted bathing and how she felt while she undressed a patient. Thus, she applied general, context-independent principles of practice to a specific experience. After that, she presents how she considers this event from a more abstract, generalised viewpoint (SG-), hypothesising how it might be done to reduce anxiety for her and patients based on her reflections after the event during the excavation stage. She then returns to discuss more of the challenges faced during the event (SG+) (e.g., a lack of space in the hospital bathroom). This then leads to a discussion on the importance of critical thinking in difficult situations (SG-) and continues to generalisations about how it is important to be able to approach tasks of this nature systematically (SG-). The student states:

I felt that the negative experiences arose from my lack of knowledge in caring for a patient with limb fractures. For instance, because of my poor preparation, I often found myself thinking of what the next steps are.

The discourse leads back to the point that having EPA guidelines give a student nurse a set of codes constructed through experience and in tandem with scientific knowledge. Having these guidelines is very important as a student nurse cannot predict all of the problems that might arise. With the guidelines, however, predictions are more easily facilitated (SG-). The student emphasises the importance of “critical thinking skills and ethical reasonings based on the Code for Nurses and Midwives to provide beneficence to the patients and advocate for their best interests”. She also refers to important academic sources from the nursing faculty and references authors in her reflection on general principles of practice (SG-). This subject-matter is part of the Transformation stage and the learning that has occurred. She concludes:

This attachment, albeit short, has given me a valuable insight to go beyond being a “robot nurse” who only performs the tasks but to be a critical thinker so that each patient’s specific needs could be met.

As she refers to her own learning here and not nurses in general, to conclude the critical reflection, it represents stronger semantic gravity (SG+) than the previous content about the “Code for nurses and midwives”, which is a generalised abstract knowledge structure (SG-) referring to no individual person, what might be termed an “every-nurse” or “every-midwife”. Therefore, this is a slight shift towards SG+. However, it is weaker in semantic gravity than the description of the event or hypothesising about how she might act in the same circumstance as it is a generalisable knowledge structure for a range of tasks (SG-). It therefore acts as subject-matter summing up the student’s transformation. This reference to the benefit of critical thinking also acts as part of the Coda, helping to end the reflection with subject matter towards SG-.

One common feature of high scoring critical reflection papers is this complex interplay between levels of abstraction. Students who demonstrate an ability to move from the experiential (SG+) to a more generalised personal theoretical (still applying “I”, but in a context-independent nature such as “in the future, I would do ... if the same situation arose ...”) tends to be less evident in lower scoring papers. Additionally, effective critical reflectors draw on abstract theoretical knowledge from faculty (SG-) and the clinical instructors (SG-) to view an event from a more theoretical position (SG-). This is done by appropriately applying general principles of practice in nursing (SG-) to the event in order

to judge and evaluate it. In contrast, low-achieving reflections seem to be too descriptive (SG+) and lack appropriate analysis of the event. This produces contextually-dependent rather than independent learning in the reflections. Therefore, rather than constructing semantic gravity waves, low achievers tend to produce SG+ flatlines.

CONCLUSION

This chapter has described the first stage of a large cross-disciplinary research project involving the coding and description of valued features of nursing undergraduate critical reflection assignments drawing on selected tools from Systemic Functional Linguistics and Legitimation Code Theory. As Hutchings and Huber (2008, p. 238) note, the place of theory, particularly education theory, in SoTL research has been widely debated. They note that as SoTL practitioners in the field come from a wide range of disciplines, and that engaging with theoretical frameworks that are outside these disciplines leads to a number of challenges in terms of appropriate application and depth. Despite this, Hutchings and Huber conclude that theory can play “enlightening purposes” in SoTL by “becoming a kind of boundary object that brings scholars with similar interests together, creating a shared lexicon, providing direction for further research, and unifying diverse efforts to explain a complex phenomenon” (p. 238). In drawing on the disciplinary knowledge of nursing lecturers through FGDs, academic literacy experts were able to understand what constitutes valued reflection in nursing clinical practice. This insight was used to identify relevant analytical frameworks from two complex theoretical frameworks of SFL and LCT. The selected frameworks included Genre analysis, Appraisal analysis and semantic gravity wave profiles, which were used to deconstruct student nurses’ critical reflections and reveal what counts as “deep” reflection and reveals the following insights into nursing critical reflection.

The uncovering of genre staging and structure enables a valued but often challenging skill like critical reflection to be explicitly taught to students as an unfolding process. Genre analysis of high-scoring texts revealed a consistently recognizable genre structure produced by high scoring students consisting of six stages: Introduction, Orientation, Critical Reflection, Excavation, Transformation, and Coda. As nursing educators pointed out in the FGDs, enabling students to internalize and make reflective practice intuitive is an end-goal of explicitly teaching reflections to students and asking them to engage in reflective practice throughout their clinical placements. Providing students with structure and language features that emerge within the different stages allows students to organize the complex evaluative meanings and disciplinary theoretical understandings that arise in clinical practice situations and to analyse these situations in order to improve future practice.

The application of the second framework of Attitude to the student data revealed that successful students showed engagement with negative emotions and negative self-judgement. In addition, they positively evaluated the role of their clinical instructors and showed a capacity for transformation within the event itself in terms of improved future practice. Revealing explicitly the kinds of evaluative meanings deployed by students across the different stages of reflection will enable nursing educators to show students how to engage with the personal and subjective in an academic context. As the FGD revealed, moving past the emotional and cathartic in reflections allows students to engage with their growing professional identities and professionalism as they move away from, as one of the students phrased it in their critical reflection, a “robot nurse” towards becoming self-reflective nursing practitioners.

Drawing on Legitimation Code Theory's semantic gravity, which describes the DNA of knowledge, provides a platform for the content of a text to be analysed in great depth, no matter the discipline. Thus, a semantic gravity profile is a representation of meanings across a text and how these relate to each other. Providing an analysis of this sort acts as a sound overview of these meanings. Additionally, a semantic gravity profile is a sound visualization of the content of a text presenting its different meanings. This strategy was clearly appreciated by the nursing faculty evidenced in meetings when the literacy experts presented findings from their analyses of the student nurse texts.

These results of the linguistic and knowledge practices analyses were shared with nursing lecturers in a session where academic literacy experts showed the FGD responses, the Gibb's framework, and the corresponding frameworks and results from the data that show what constitutes deep reflection. This sharing session enabled literacy experts to unpack theoretical frameworks so that particularly complex educational theory concepts were made relevant to disciplinary experts providing a "shared lexicon" (Hutchings and Huber, 2008, p. 238) that enabled the team to explain and discuss the complex phenomenon of reflection in clinical nursing practice.

The next stage of the project will involve the use of these results to create a rubric that draws on the genre structure and its overlap with stages of Gibb's reflective cycle as the basis for an effective scaffold for students and lecturers to view what is valued for successful reflective writing in the discipline, and how to approach the task of producing a valued critical reflection response. This chapter showed how the use of complex SFL and LCT frameworks can be unpacked by academic literacy experts to help to make visible the *practices* of academic writing, in this case, critical reflection writing, based on *evidence* of sound and valued texts in the disciplines. From this collaboration, it is clear that these theoretical approaches can be used by experts in education and literacy working with disciplinary experts in fields where practicum is essential. It has proven to be easily accessible to a wider community of disciplinary staff.

The project also clearly demonstrated the value of interdisciplinary collaboration in SoTL where nursing educators were able to provide disciplinary insights into the process of how undergraduate nursing students development their identities as professional nurses. Meanwhile, academic literacy experts were able to explicitly reveal these meanings in examples of successful high scoring students through the use of highly valued theoretical frameworks. The collaboration has demonstrated that the use of theoretically valued and explicit frameworks can make visible what disciplinary experts know to be intuitively valued in their disciplines. In addition, it has facilitated a deeper understanding of how knowledge is construed in reflective practice in the discipline of nursing and in nursing care. For SoTL research, which has been critiqued for not engaging with education theory (Hutchings & Huber, 2008), cross-disciplinary collaborations have the potential to provide an opportunity for disciplinary and education experts to draw on each other's knowledge to enable deeper understanding of disciplinary practice; provide "alternative approaches" to understanding a discipline (Shulman, 2005, p. 58); provide a shared "lexicon" for the analysis and discussion of research and finally, an opportunity to create "larger and more effective communities of practice" (Hutchings & Huber, 2008, p. 238).

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ENDNOTE

According to conventions in SFL theory, the sign ^ indicates ‘is followed by’; brackets indicate the stage is optional.

APPENDIX

Focus Group Questions

1. How do you define “critical reflection” in nursing?
2. Do you think that there is a difference between “reflection” and “critical reflection”?
3. Do you believe that teaching critical reflection as a skill is important?
4. Do you set some form of assessment for critical reflection assignments in your discipline?
5. Do you use any frameworks for teaching critical reflection (e.g., Gibbs, 1998)?
6. Do you find that these frameworks are useful for teaching student reflection?
7. How important is theoretical knowledge for reflections (e.g., literature on effective patient care or hygiene?) What purpose does theoretical knowledge play in understanding critical incidents during practicum?
8. How important is critical reflection for the construction of the nurse’s “identity”?
9. How important is the application of learning from a critical incident for future practice?