Self-Study as a Method for Continuous Professional Learning in Nursing Education

By

Judy Clarissa Woods

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Abstract

Self-study is recognized as an effective method for examining, understanding, and improving one’s teaching practices in teacher education. This research employed self-study as a continuous professional learning (CPL) approach to become a better clinical nursing instructor, to learn about the effectiveness of formative assessment for promoting more independent self-regulated learning in nursing students, and to build knowledge for scholarship in the profession of nursing.

This research primarily employed a qualitative methodology in three connected studies conducted over three years in clinical nursing education. In each self-study a reflective journal was used for systematic documentation of instructor planning and decision-making, and student responses to the implementation of five formative assessment strategies. Iterative cycles of planning, implementing, and reflecting on instruction and students’ responses facilitated the collection of rich contextually bound data for analysis and interpretation.

Study one examined self-study as an approach for a clinical instructor to translate and implement five specific formative assessment strategies, shown to promote student learning in education, in clinical nursing education. To continue learning about formative assessment and to explore others’ perspectives and experiences, study two employed surveys and interviews with clinical instructor colleagues and their nursing students. The third study, conducted in a new self-study context, examined student reflection assignments to examine the potential of a curriculum-required reflection on clinical practice for supporting independent self-regulated learning.

This research presents the first known self-study of pedagogical practice in clinical nursing education. Results of this study suggest that self-study is an effective approach for CPL to advance competency in clinical instruction. Embedding formative assessment strategies in
clinical nursing education was seen to influence and support both teaching and learning. Participation in learning activities that integrated multiple feedback loops (instructor, peer, self, other) was seen to provide students with more helpful evidence for regulating their learning. The results of this study suggest that instructors and curriculum developers must be explicit in communicating learning intentions and success criteria, and strategic in embedding formative assessment in the instruction and curriculum in support of students’ self-regulation of learning.
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## Table of Contents

Abstract

Acknowledgements

Table of Contents

List of Tables

Chapter 1: Introduction
- Determining the Path of Inquiry
- The research questions

Core Concepts and Informing Literature
- Continuous Professional Learning
- Self-Study
- Formative Assessment
- Structure of the Thesis

References

Chapter 2: Setting the Stage
- The Background
- My Doctoral Journey: The Beginning
  - Action Research
  - Autoethnography
  - Self-Study
- My Doctoral Journey
- First Step, First Study
  - Instructors in clinical nursing education
Second Step, Second Study

Third Step, Third Study

Regulating student learning

References

Chapter 3: Anchoring Methodology and Methods in Theoretical Frameworks

The Research Design

Using a Qualitative Methodology

Constructivism

Interpretive description

Theory of Formative Assessment

Conditions Leading to My Qualitative Approach

Self-Study

Self-Study as a Research Methodology

Employing Self-Study in this Research

Timeline and Study Contexts

Ensuring the Trustworthiness of the Research Findings

Adapting the Methodology

References

Chapter 4: Formative Assessment in Clinical Nursing Instruction: A Self-Study

Research Purpose and Question

Background

Introduction to the Self-Study Process

A Story of Self-Study: Formative Assessment in Clinical Instruction
What Practice Am I Improving? 50
Operationalizing the Self-Study 52
Insights into Self-Study 63
My Professional Learning about Formative Assessment 63
  Formative assessment strategy 1: Understand, discuss, and clarify 64
  Formative assessment strategy 2: Initiate discussions and implement tasks to elicit evidence of learning 64
  Formative assessment strategy 3: Provide feedback to move learning forward 64
  Formative assessment strategy 4: Activate learners as instructional resources for one another 65
  Formative assessment strategy 5: Self-monitor performance and seek out appropriate feedback 65
Activating Assessment Strategies Differently for Learning Different Skills 66
  Student preparation for learning clinical skills 67
Activating Assessment Strategies in Different Clinical Contexts 69
  Clinical lab 69
  Clinical practicum 69
Self-Study as My Approach for Continuous Professional Learning 71
  Assessing My Professional Growth 72
  Promoting a Professional Learning Orientation in Students 74
Self-Study as an Approach to Investigate Other Professional Learning Interests 74
Conclusions 78
References 80
Chapter 5: Examining Clinical Instructor and Nursing Student Understandings of Formative Assessment

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background Literature</td>
<td>85</td>
</tr>
<tr>
<td>Formative Assessment and Student Learning</td>
<td>88</td>
</tr>
<tr>
<td>Methods</td>
<td>90</td>
</tr>
<tr>
<td>Research Design</td>
<td>91</td>
</tr>
<tr>
<td>Recruiting participants</td>
<td>91</td>
</tr>
<tr>
<td>Developing instruments</td>
<td>91</td>
</tr>
<tr>
<td>Monitoring response rates</td>
<td>97</td>
</tr>
<tr>
<td>Data Collection</td>
<td>98</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>100</td>
</tr>
<tr>
<td>The Data</td>
<td>100</td>
</tr>
<tr>
<td>Analysis and Interpretations</td>
<td>101</td>
</tr>
<tr>
<td>Validity</td>
<td>102</td>
</tr>
<tr>
<td>Findings, Analyses, and Implications for My Practice</td>
<td>102</td>
</tr>
<tr>
<td>Clarifying, sharing, and understanding learning intentions and success criteria</td>
<td>103</td>
</tr>
<tr>
<td>Instructors</td>
<td>103</td>
</tr>
<tr>
<td>Students</td>
<td>104</td>
</tr>
<tr>
<td>Improving my practice</td>
<td>107</td>
</tr>
<tr>
<td>Engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning</td>
<td>108</td>
</tr>
<tr>
<td>Instructors</td>
<td>108</td>
</tr>
<tr>
<td>Students</td>
<td>110</td>
</tr>
<tr>
<td>Instruments</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td></td>
</tr>
<tr>
<td>Chapter 7: Becoming Conscious of the Acquisition of Knowledge</td>
<td></td>
</tr>
<tr>
<td>Self-Study as Continuous Professional Learning</td>
<td></td>
</tr>
<tr>
<td>The Challenge of Improving Clinical Instruction</td>
<td></td>
</tr>
<tr>
<td>Implementing Inquiry-Based Self-Study</td>
<td></td>
</tr>
<tr>
<td>The call for a critical friend</td>
<td></td>
</tr>
<tr>
<td>Self-Study as a Trustworthy Approach to Professional Learning</td>
<td></td>
</tr>
<tr>
<td>The Embedded Nature of Formative Assessment</td>
<td></td>
</tr>
<tr>
<td>Remembering the Purpose of Formative Assessment</td>
<td></td>
</tr>
<tr>
<td>Embedding Formative Assessment into Planning and Instructional Practice</td>
<td></td>
</tr>
<tr>
<td>Supporting Self-Regulated Learning in Nursing Students</td>
<td></td>
</tr>
<tr>
<td>Establishing Expectations</td>
<td></td>
</tr>
<tr>
<td>Helping Students Move Their Learning Forward</td>
<td></td>
</tr>
<tr>
<td>Formative Assessment and Self-Regulated Learning as Elements of Curriculum</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Implications for Knowledge Utilization in Nursing Education</td>
<td></td>
</tr>
<tr>
<td>Diffusion and Dissemination of My Processes and Findings</td>
<td></td>
</tr>
<tr>
<td>Curriculum Renewal as Knowledge Utilization</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td></td>
</tr>
<tr>
<td>Appendix A: Research Ethics Approvals (Study One, Two, and Three)</td>
<td></td>
</tr>
<tr>
<td>Appendix</td>
<td>Title</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>B</td>
<td>Ethics Approval Queen’s University Study One</td>
</tr>
<tr>
<td>C</td>
<td>Ethics Approval Queen’s University Study Two and Three</td>
</tr>
<tr>
<td>D</td>
<td>Ethics Approval Site Two Study Two</td>
</tr>
<tr>
<td>E</td>
<td>Ethics Approval Site Three Study Two</td>
</tr>
<tr>
<td>F</td>
<td>Approval Site Study Three</td>
</tr>
<tr>
<td>G</td>
<td>Examining Teaching and Learning around the Preparation and Administration of Medications (Study One)</td>
</tr>
<tr>
<td>H</td>
<td>Research Poster (Study Two)</td>
</tr>
<tr>
<td>I</td>
<td>Data Analysis (Study Two)</td>
</tr>
<tr>
<td>J</td>
<td>Reflection Rubric (Study Three)</td>
</tr>
<tr>
<td>K</td>
<td>Email from the Course Professor (Study Three)</td>
</tr>
<tr>
<td>L</td>
<td>Curriculum Expectations (Study Three)</td>
</tr>
<tr>
<td>M</td>
<td>Feedback to Students on Reflections (Study Three)</td>
</tr>
</tbody>
</table>
List of Tables

Chapter 1 Table 1: Core Definitions

Chapter 3 Table 1: Matrix of Thesis Research

Chapter 4 Table 1: Transferring and Integrating Formative Assessment Strategies from Education to Clinical Nursing Instruction

Chapter 4 Table 2: Examples of Examining the Implementation of Formative Assessment Strategies in Two Clinical Nursing Education Contexts

Chapter 4 Table 3: An Excerpt from Examining Teaching and Learning around the Preparation and Administration of Medications

Chapter 4 Table 4: A Guide to Using Self-Study to Support the Professional Learning of Clinical Instructors: A Formative Assessment Example

Chapter 5 Table 1: Instructor Survey Questions

Chapter 5 Table 2: Student Survey Questions

Chapter 5 Table 3: Instructor Interview Questions

Chapter 5 Table 4: Student Focus Group Questions

Chapter 5 Table 5: Potential Instructor and Student Participants

Chapter 5 Table 6: Participation of Clinical Instructors and Nursing Students in Surveys and Interviews

Chapter 5 Table 7: Coding Labels

Chapter 7 Table 1: Formative Assessment Strategies Applied in Clinical Nursing Instruction
Chapter 1: Introduction

This thesis examines the value self-study as a method of continuous professional learning (CPL) for clinical nursing instructors. I employed self-study as a CPL approach to answer questions that had arisen for me about how to use formative assessment in nursing education and whether formative assessment might help to promote more independent self-regulated learning in nursing students.

As an adjunct clinical instructor in nursing, I have limited access to professional learning about clinical instruction, yet I am responsible for supporting and assessing students’ learning and ultimately evaluating the quality of their clinical performance. I use information from these assessments to make decisions about students’ success in my courses. To increase my competence and confidence in making these decisions and to improve my clinical instruction I turned to self-study as a method of independent CPL. In teacher education, self-study is recognized as an effective method for examining, understanding, and improving one’s teaching practices (Samaras & Freese, 2006; Capobianco, 2007). As an Ontario certified teacher, registered nurse, clinical laboratory and practicum nursing instructor, and graduate student researcher, I was uniquely positioned to explore self-study as a method of CPL to become a better clinical nursing instructor. My questions about my practice centered on how to keep my students focused on learning and thus progressing towards the learning objectives of my courses. During my doctoral studies I had been introduced to the theory and practices of formative assessment (Black and Wiliam, 2009). What was unclear was whether the benefits of formative assessment in the classroom could be realized in clinical nursing education.

As a method of CPL, the set of self-studies reported on here begin to address the gap in knowledge about how an independent practitioner can become a better clinical instructor. By
explicitly describing what, why, and how I conducted these studies, my objective is to make the processes and findings transparent and accessible for others. As a methodology, self-study facilitates building knowledge about the improvement of practice (Alderton, 2008). My overall objective in this project is to build knowledge that will contribute to teaching scholarship in the profession of nursing.

Three research questions underpin this work.

1. How does a self-study approach support an instructor’s efforts at continuous professional learning, specifically about the use of formative assessment in nursing?
2. How do colleagues who are instructors in clinical nursing use formative assessment, if at all, and to what extent do students recognize and value these strategies?
3. How well does the curricular expectation that students reflect on their own learning serve the intended purpose of supporting independent self-regulated learning?

The purpose of this thesis is to examine the processes and outcomes related to the use of self-study as a method of CPL in clinical nursing education, to contribute new understandings to the knowledge bases that currently shape self-study and formative assessment, and to offer insights to other clinical instructors who may be interested either in adopting self-study as an approach to CPL or in integrating formative assessment as one strategy in support of student self-regulated learning.

Determining the Path of Inquiry

This research chronicles the use of self-study as a method for CPL. In this case, the focus of my self-study is the practice of formative assessment, including the potential of formative assessment as a pedagogical tool suitable for helping nursing students begin to regulate aspects of their own learning. This is a complex research purpose and one that I felt was best pursued by
tracking my efforts to learn about both self-study and formative assessment over time. The three manuscripts that form the centerpiece of this thesis, together, tell a story of CPL. Specifically, they describe how I worked in different ways and different contexts and how I used different data generated through interactions with students and instructors to enhance my capacity as a clinical instructor.

**The research questions.** I formulated my first research question before I had any formal experience with self-study, taking into account my keen interest in the influence of formative assessment on teaching and learning. *How does a self-study approach support an instructor’s efforts at continuous professional learning, specifically about the use of formative assessment in nursing?* After completing a semester of independent work, I determined that listening to the experiences of my colleagues and other students could enhance my professional learning. The second question arose out of this awareness. *How do colleagues who are instructors in clinical nursing use formative assessment, if at all, and to what extent do students recognize and value these strategies?* The absence of any significant guidance from colleagues or students on how to continue my thinking in formative assessment led me to seek out a new self-study context. In this context, however, it was an expectation that I shape my learning in ways that were consistent with the assessment expectations of the curriculum. This led to my third question. *How well does the curricular expectation that students reflect on their own learning serve the intended purpose of supporting independent self-regulated learning?*

**Core Concepts and Informing Literature**

Three core concepts are embedded in the purpose of this thesis: continuous professional learning (CPL), self-study, and formative assessment (Table 1).
Table 1

**Core Definitions**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous professional learning (CPL)</td>
<td>In education, professional learning is about engaging in learning activities to increase knowledge and skill in support of one’s professional practice. In nursing, professional development is the term used to describe participating in focused knowledge and competency development relevant to one’s area of practice. Professional practice standards for Ontario nurses (<a href="http://www.cno.org/globalassets/docs/prac/41006_ProfStds.pdf">www.cno.org/globalassets/docs/prac/41006_ProfStds.pdf</a>) and Ontario teachers (<a href="http://www.oct.ca/public/professional-standards/standards-of-practice">www.oct.ca/public/professional-standards/standards-of-practice</a>) require that practitioners be current in knowledge and competent in practice.</td>
</tr>
<tr>
<td>Self-study</td>
<td>In education, self-study is defined as an approach, a method, and a methodology that facilitates the study of self in a space in relation to other (Bullough and Pinnegar, 2001). I was not able to identify any self-study research in nursing. The three purposes of self-study relevant to education and nursing are 1) personal growth and development, 2) professional growth and development, and 3) classroom and school improvement (Samaras &amp; Freese, 2006).</td>
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<tr>
<td>Formative assessment</td>
<td>In education, the definition of formative assessment has evolved and incorporates evaluation for improving conditions for academic learning (Sadler, 1989), assessment as learning (Earl, 2012), and assessment for learning (Black &amp; Wiliam, 2009). Formative assessment is a familiar term in education and nursing. Assessment of clinical performance in nursing may be referred to as evaluation instead of assessment.</td>
</tr>
</tbody>
</table>

**Continuous Professional Learning**

Continuous professional learning (CPL) in education (Boud & Hager, 2012; DiMauro, 2000) and professional development in nursing are a responsibility, not a choice. I chose the term *continuous professional learning* (CPL) because learning to be a clinical instructor is an unending process and not dependent on formalized episodes or educational opportunities. Clinical instructors in nursing, much like classroom teachers, tend to work independently. Typically both rely on the responses and feedback of their students to judge the value and effectiveness of their instruction. I wanted to become more competent in my professional practice as a clinical nursing instructor. Self-study offered the promise of a professional learning
strategy that could help me to better understand the learning needs of my students, to closely examine my teaching practices in relation to those needs, and to adjust my practices as evidence of my own learning (Roessger, 2015).

As a clinical nursing instructor, the context for my research was never totally independent of the context for my teaching and learning. I engaged in self-study before, while, and after I carried out the formal responsibilities I had as an instructor. My learning, as described in this research, required that I interpret theories and implement recommended practices pertaining to self-study and formative assessment. I observed and documented the consequences of my learning on both my professional practice and on the experiences of students, and I made instructional adjustments on the basis of the quality of outcomes. Conducting research into CPL in situ was an effort to add ecological validity to the processes and findings of the inquiry (Gouvier, Barker, & Musso, 2010).

Self-Study

Historically the notion of self-study emerged from the work of “a dynamic group of teacher educators committed to studying their practice in an effort to make their teaching, curricula, and/or programs more relevant and effective” (Samaras & Freese, 2006, p. 17). This was the Self-Study of Teacher Education Practices special interest group of the American Educational Research Association. The purposes for self-study identified by Samaras and Freese (2006), personal and professional growth and development and improvement in the learning environment, underpin my research. I chose self-study as it met all of my purposes.

My research draws upon the work of Bullough and Pinnegar (2001), who reported, “to study a practice is simultaneously to study self: a study of self-in-relation to other” (p. 14). My research is a study of my decision making as the clinical instructor in relationship with students
who are learning to become nurses. Bullough and Pinnegar went on to clarify that “[self] study does not focus on the self per se, but on the space between self and the practice engaged in” (p. 15). This self-study research focuses particularly on the space where I enacted formative assessment to observe the meaning of the practice for my students and for me. Additionally, Bullough and Pinnegar argued, “the aim of self-study research is to provoke, challenge, and illuminate rather than confirm and settle” (p. 20). I engaged in purposeful self-study around five suggested strategies for formative assessment to (a) provoke myself to re-think my instructional practices and how these were or were not supporting student learning, (b) challenge myself to design activities and engage students in new ways, and (c) provide insights into how I might proceed toward the goal of using assessment to help nursing students better regulate their own learning.

**Formative Assessment**

In 1969 Bloom used the term *formative* to describe assessment that was intended to provide feedback to teachers on the quality of their instruction in promoting student learning (in Wiliam, 2011). Sadler (1983) was also interested in the improvement of academic learning and the resulting implications for teaching. He defined formative assessment as “evaluation for improvement” (p. 78). It was Black and Wiliam, however, who worked directly with classroom teachers over 10 years (1998a, 1998b, 2003, 2006, 2007) to codify the assessment strategies that showed the most promise in improving the conditions for student learning. The impetus for their program of academic and field-based research was the desire to help students be better prepared to achieve the expectations and standards of performance set out by the curriculum. These five strategies were published as specific resources for teachers:
1. Clarifying and sharing learning intentions and criteria for success;
2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding;
3. Providing feedback that moves learning forward;
4. Activating students as instructional resources for one another; and
5. Activating students as the owners of their own learning (Black & Wiliam, 2009, p. 8).

When publishing practical application of the strategies in classrooms, Wiliam (2011) placed emphasis on “clarifying, sharing, and understanding learning intentions and criteria for success” (p. 2). The five strategies have been endorsed by provincial school systems (see, for example, the Ontario Ministry of Education, 2013; Western and Northern Canadian Protocol for Collaboration in Education, 2006). It is safe to say that formative assessment is firmly established as an integral responsibility for teachers of students in kindergarten to Grade 12. As I began my research, however, it was unclear how well the theory of formative assessment and its related strategies would translate into nursing education and the clinical instructional context.

**Structure of the Thesis**

In Chapter 2 I set the stage for this research. I introduce the dilemmas I faced as a student, nurse, teacher, and clinical instructor, and I discuss how these set the stage for my research questions. In Chapter 3 I introduce the methodology and methods I employed throughout the inquiry. I specifically make the argument that self-study (Alderton, 2008; Cohn, Haomiao, & Larson, 2009) is both a fitting and valuable way to organize CPL in the clinical setting. In the subsequent chapters I present three purposeful self-studies framed as opportunities for CPL. Readers will learn how each self-study was conducted, the questions that emerged as the self-study progressed, the insights and learning that the data provided, and the emergence of the overarching question from each study.

In addressing the first research question in Chapter 4, *how does a self-study approach support an instructor’s efforts at continuous professional learning, specifically about the use of*
formative assessment in nursing, my challenge was to establish a habit of self-study to examine the feasibility and consequences of integrating recommended formative assessment strategies into my instruction (Black & Wiliam, 2009) in one nursing program in Ontario, Canada. Concurrently, a collaborative site of the same program hired me as a simulation lab instructor to help a group of undergraduate nurses develop clinical skills that include preparing and administering medications and making beds. The story of my professional learning as it took place in both contexts highlights the critical elements of self-study, and the strategies of formative assessment that proved to be more or less valuable in my shaping of student learning.

Chapter 5 is where I pursued the second research question, how do colleagues who are instructors in clinical nursing use formative assessment, if at all, and to what extent do students recognize and value these strategies? Here I describe my efforts to extend my learning by reaching out to colleagues and their students. This was intended as a way to test out the value and utility of the insights I gained about formative assessment through my initial self-study process. I designed and administered two bilingual (French/English) online surveys, one for students and one for clinical instructors. I drafted two in-depth interview protocols, one to use with nursing students and the other to use with clinical instructors. The focus of all instruments was to learn both across groups and in some detail within groups about students’ and instructors’ understandings and experiences with formative assessment. When provided, I examined instructors’ descriptions of the ideas, activities, and strategies they employed and considered how these compared with assessment theory and my own ideas and experiences. Finally, I used this limited acquired knowledge to reconsider my self-study plan. This study reports on the complexity of tapping into the practices and experience of others in the workplace.
Chapter 6 addresses the third research question, *How well does the curricular expectation that students reflect on their own learning serve the intended purpose of supporting independent self-regulated learning?* In this study I was a clinical instructor with nursing students in an undergraduate university program in Nova Scotia, Canada. Throughout this experience I continued using the elements of self-study as I analyzed the quality of students’ reflections and my feedback. This study considers the role of the reflection/feedback cycle between students and their instructor as a way to scaffold learning and promote professional growth.

The final chapter brings together insights from the methods and findings of the three studies to address the overall purpose of the research. Specifically, Chapter 7 synthesizes what I learned about the role, practices, and value of CPL when the focus for learning is formative assessment and when the method for learning is self-study. This chapter highlights the rewards and pitfalls I experienced in conducting self-study and provides an analysis of why I might have experienced self-study in the ways it played out. By comparing my insights with what is currently known theoretically about self-study, I add to the knowledge base informing the field and provide guidance to other clinical nursing instructors interested in advancing their own professional learning in this way.

Also in Chapter 7 I undertake the same descriptive and analytic steps in reconsidering formative assessment. This results in a nuanced way to talk about formative assessment in theory and offers practical guidance on how clinical nursing instructors might consider using formative assessment to help their students begin to regulate their own learning. The outcomes of these three connected studies contribute to teaching scholarship in the profession of nursing.
References


Chapter 2: Setting the Stage

In this chapter, I set the stage for my research and state the rationale for choosing self-study for this work. Additionally, I describe clinical nursing instruction and self-regulation of learning in the context of this study. The reader will notice that I use autobiographical vignettes (Ambler, 2012) in this chapter as a unique structure to express ideas and dispositions that moved my thinking about this research forward. These vignettes are brief narratives of my experience (Baker, 2015). As a clinical instructor using formative assessment to improve my teaching, in simulation and practicum contexts, I was continuously reflecting on teaching/learning processes and outcomes. I use the vignettes to highlight critical moments in my journey both as a practitioner and as a scholar between 2009 and the present. As a set, they act as a connecting thread across the multiple roles and contexts in which this research and my learning took place.

The Background

My road to graduate research was long and winding. I graduated from a diploma nursing program in 1975 and began my career as a pediatric registered nurse. In 2001, I decided to pursue my degree in nursing and became a distance education student at the University of Victoria. Opportunities to act as an educational leader during my nursing career prompted my interest in becoming a full-time teacher. In 2004, I became a certified elementary teacher. Teaching positions were scarce, however, so I continued to practice full time as a nurse and remained an occasional elementary school teacher. My commitment to lifelong learning intensified. I began graduate studies in education at the University of Ottawa, concentrating on teaching, learning, and evaluation while continuing to practice as a nurse.

In 2008, I completed my Master of Education studies. My efforts to put into practice what I had learned in graduate studies led me to accept a position as a clinical instructor in an
undergraduate nursing program. Although there are many paths to becoming a clinical instructor, I began as a registered nurse (RN) with a Bachelor of Science in Nursing and as a certified teacher with a Bachelor of Education. My education and experience as an RN were the qualifications required for clinical instruction. However, it was my teacher perspective that raised for me questions about determining nursing students’ clinical performance as satisfactory or unsatisfactory. The questions I was forming around assessment and evaluation practices in clinical instruction spurred my application to pursue doctoral studies at Queen’s University. I reasoned that my education and experiences as RN, teacher, and clinical instructor and the knowledge I had gained through my earlier graduate studies in a faculty of education would allow me to both answer my questions and make a contribution to education in nursing. I wanted to give back to the profession of nursing, a career in which I had experienced fulfillment as a professional and a person.

**My Doctoral Journey: The Beginning**

*It is 2009. I have been an RN in clinical practice for 34 years. I have also used my Bachelor of Education experience to teach elementary school for five years. I am dedicated to helping my students learn and I work hard to create learning tasks that will help my students to progress. The responsibilities of assessment and evaluation always loom over my head. I know that I have the ultimate responsibility for deciding who is successful in my courses and who is not. My uncertainty is in how to keep myself and my students focused on learning and progressing towards the learning objectives, instead of on these one-time pass/fail judgments. I also want to make these judgments with more confidence than I currently have. I am hopeful that being accepted into a doctoral program with an emphasis on assessment and evaluation will provide me with a structured opportunity to continue my practice while clarifying and seeking answers to my questions.*

Introduction to Black and Wiliam’s seminal work on formative assessment (2009) early in my graduate studies influenced my thinking about how strategies found to promote learning in one context (education) might promote student learning in another (nursing). Formative
assessment is a familiar term in education and nursing. Although the intention of formative assessment in these two contexts is similar, the education literature explicitly situates formative assessment within the process of learning, advancing towards a summative assessment of learning. Research in education draws greater attention to the purpose of assessment through explicit use of the term assessment for learning (Black & Wiliam, 1998) and assessment in the service of learning (Davies & Herbst, 2013) and attention to the student as a participant, in assessment as learning (Earl, 2003). As I prepared for my first comprehensive exam (Woods, 2011) I considered how breaking formative assessment into assessment for learning and assessment as learning might contribute to nursing education and nursing students’ learning.

It is 2011, and I am in the second year of my doctoral studies. I have identified a gap between my conceptual understandings of assessment and evaluation and my practice. I wonder how my new understandings might apply to my work as a clinical nursing instructor. I am curious about the formative assessment practices that Black and Wiliam (1998) identified as critical for promoting student learning in classroom education. At the same time, I have discovered Wiliam’s (2011) book. As I read the descriptions of practical classroom applications of formative assessment strategies, I think about their potential for promoting learning in clinical nursing education. Is it reasonable to think that these five strategies might promote learning with my nursing students? What would these look like if I tried them? I am excited about how I might explore this question using self-study methods and how, in documenting my efforts, I might help other clinical instructors.

Preparation of my research proposal as my second comprehensive exam required that I make a decision on a research methodology for my doctoral work. I considered and eliminated methodologies that did not support my proposed research. Action research and autoethnography were two of these methodologies.

**Action Research**

Bradbury-Huang (2010) defined action research as
...an orientation of knowledge creation that arises in a context of practice and requires researchers to work with practitioners. Unlike conventional social science, its purpose is not primarily or solely to understand social arrangements, but also to effect desired change as a path to generating knowledge and empowering stakeholders. (p. 93)

In my research I was the researcher and the practitioner. Although I sought to generate knowledge about self-study as an approach to continuous professional learning (CPL) and to learn about the potential of five formative assessment strategies in clinical nursing contexts, the change I was seeking was in myself: improving my clinical instructor practice.

**Autoethnography**

Wall (2006) defined autoethnography as self-introspection where the research question is an outcome of “intense introspection” (Wall, p. 4). Nursing literature reveals a paucity of autoethnographies. Those that do exist tend to explore facets of the researcher’s mental health/illness (Petersen, 2015). Petersen describes autoethnography as a method for “making the private public” (p. 231) and describes autoethnographers as brave, courageous, and vulnerable. These descriptions do not align well with my research objectives. My research interests and my initial questions were not an outcome of introspection. Instead, these emerged from my experiences as a clinical nursing instructor, a nurse, a teacher, and a graduate student in a faculty of education. The context for my work, how I practice and make decisions, changes so regularly that my learning is about not just introspection about my own values and competencies but also the context. I eliminated action research and autoethnography.

**Self-study**

Considering myself as a novice in clinical instruction, I reflect on my practice as a learner to become a better instructor. My purpose is different from Brookfield’s (1998) work using four lenses (autobiography, learner, colleagues, and theoretical literature). Brookfield’s goal was to become a critically reflective practitioner. As an independent adjunct instructor, my quest was to
become a better clinical instructor and to contribute to scholarship in nursing education. With these goals in mind, I located my work as an autobiographical form of self-study research (Bullough & Pinnegar, 2001) aligned to “moving scholarship on” (p. 15) and to moving practice in nursing education forward, “not merely assisting one’s own practice” (p. 15).

As a method for my CPL, self-study offered me the opportunity to increase my competence and confidence in assessing and evaluating students’ clinical performance and to support my decision making about students’ success in my courses. In addition to improving my clinical instruction, self-study showed promise as way for me to contribute to teaching scholarship in the profession of nursing. The idea of self-study resonated with me.

My Doctoral Journey

It is 2011, and to better understand how nursing students are learning clinical skills, I arrange to attend several undergraduate nursing simulation sessions. I observe nursing students working together in small groups and using printed instructions to guide their learning and their practice of specific skills. Some groups are drawing up sterile water to prepare injectable medications. Others are operating settings with IV pumps. I wonder about the quality of learning and preparation these nursing students are experiencing. I wonder if this is how all students learn to prepare and administer medications.

First Step, First Study

Instructors in clinical nursing education. Registered nurses apply to postings for university and college clinical instructor positions for many reasons. A significant one is the opportunity to broaden one’s nursing career. Instructor positions challenge experienced nurses to step back and consider ways of preparing the next generation of nursing professionals. I sought out clinical instructor opportunities because, as a certified teacher, I wanted to learn more about how nursing students were being educated and how my nursing knowledge and experience could be combined with my understanding of pedagogy to contribute to their education.
The role of both a lab instructor and a practicum instructor is to supervise the education of nursing students (Dahlke, Baumbusch, Affleck, & Kwon, 2012). Instructors, selected and contracted by schools of nursing, are provided with individualized orientation, a clinical course manual, access to the course website, and contact information for the nursing students assigned to their clinical group.

Lab instructors teach clinical skills in a simulated setting with up to 14 students. Instructors in a clinical practicum navigate a real clinical setting with up to nine students. Both simulation lab and clinical practicum instructors are responsible for using prescribed course-specific evaluation tools to make judgments about the quality of student learning at the midpoint of the course (described as formative assessment) and at end of the course (described as summative assessment). All clinical instructors are responsible for creating safe and rich learning experiences for students and monitoring the quality of student performance. In the practicum, however, the instructor must keep in mind the possible effects of their students’ actions on real patients, their families, and the health care team.

Winter 2012 offers a favorable combination of circumstance, timing, relationships, and clinical course scheduling. This leads to two unique opportunities for me to teach second-year nursing students in introduction to nursing courses. I accept offers both to act as a clinical instructor with students in their first clinical practicum (I have done this before) and to teach entry clinical nursing skills in a simulation lab (for my first time). These instructor positions serve as a unique opportunity for me to continue my professional learning. I examine five formative assessment practices advocated by assessment researchers. I am eager to see how using these strategies might change my practice and how students experience learning and assessment. But how will I structure my learning? I choose a practice called self-study. My challenge is to learn as much as possible about this practice and to use it as a way to improve my use of formative assessment.

In teacher education, self-study is “a legitimate form of inquiry and valued source of knowledge about teaching” (Clarke & Erickson, 2004, p. 111). It is a research method for
becoming a better practitioner (Samaras & Freese, 2006). Typically the researcher is an academic whose knowledge about teaching is founded in their practice. In the teaching profession, a teacher uses self-study methodology to enhance their work of teaching Bachelor of Education students to become teachers, or teaching students in a classroom. Self-study is research that facilitates analysis of one’s teaching practice in support of continued learning about how students learn (Clarke & Erickson, 2004). Clarke and Erickson (2004) propose that self-study is the *somehow* that helps a teacher “to know, recognize, explore, and act upon his or her practice” (p. 207). It is a “cornerstone to professional practice” (Clarke & Erickson, 2004, p. 207). Self-study helps one to become a better teacher, while contributing to professional practice in and knowledge about teaching (Clarke, Erickson, Collins, & Phelan, 2005; Loughran & Russell, 2007). In nursing literature, self-study relates to modules developed for focused self-directed learning. Instructors who are teaching students to become nurses are chosen for clinical instruction on the basis of their clinical nursing expertise. The foundation of teaching is not embedded in their work with nursing students; they learn clinical instruction on the job.

Although I too learned clinical instruction on the job, I am in the rare position of having both a Bachelor of Science in Nursing and a Bachelor of Education. I draw a parallel with the teacher-researcher who is preparing education students to become teachers. I am the nurse-researcher preparing nursing students to become nurses. My self-study work integrates my three research interests: (a) how clinical instructors can systematically improve their teaching practices, (b) how these efforts can enhance how formative assessment might be used to improve the learning experiences of nursing students, and (c) how curriculum and assessment might support students’ self-regulated learning.
Second Step, Second Study

*It is the spring of 2013. I am pleased with my initial efforts in using a self-study approach to examine the potential of formative assessment as part of my approach to clinical instruction. This method of continuous professional learning allowed me to focus on the quality of my interactions with my students as we engaged each other in teaching and learning. I am convinced from what I have experienced in two different instructional contexts that the theory underpinning Black and Wiliam’s (2009) five strategies can translate well into nursing education practice. Yet, I wonder about two things: How do my experiences in using formative assessment compare with those of my clinical instructor colleagues who work either in simulation or practicum contexts, and how do other students experience this form of assessment?*

In Study Two, I extended my professional learning by reaching out to clinical instructor colleagues and their students to test the usefulness of my new insights into the use of formative assessment. Learning how others in my role had grappled with formative assessment and the extent to which other students valued these efforts would contribute directly to my decisions about how to improve my instruction. The findings were intended to provide me with additional practical guidance on the ways in which I could continue my professional learning, particularly around the implementation of formative assessment.

Third Step, Third Study

*It is 2014, and I am excited to take my clinical nursing instructor skills into an undergraduate university program in Nova Scotia. My students will begin a 120-hour clinical placement following eight months of classroom work in this, their first year. As I begin my work instructing in a new university context in a new province, I am conscious of the fact that I am working in what is for me a new curriculum. I appreciate the supports in place, including a clinical instruction workshop, a connection with the professor responsible for this course, and a peer mentor for my students. This mentor has developed nursing skills in part through this curriculum. These supports will help to increase my familiarity with the Bachelor of Nursing curriculum I will be implementing and are likely to inform my clinical instruction. I learn that a curriculum expectation for my first-year students is to electronically submit reflections on their beginning nursing practice. I am interested in examining the value of this expectation and seeing if there is any emerging evidence that purposeful formative assessment can influence the quality of this required reflective practice and specifically if I can create the conditions that promote self-regulated learning.*
Regulating student learning. Zimmerman (2002) describes self-regulated learners as . . . proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies…These learners monitor their behavior in terms of their goals and self-reflect on their increasing effectiveness. (Zimmerman, 2002, p.65)

It is critical that as nursing students progress through their program they develop independence in determining their learning needs as well as in ascertaining when and how these needs can be addressed. This skill is a distinguishing trait of practitioners who are professionally competent. Graduate nurses are more likely to be continuous professional learners if the pedagogy of their instructors has provided them with practice in these self-regulating skills. They may also benefit from instructors willing to explicitly model these skills. I embarked on my self-study around formative assessment with these points in mind.

How students actually become self-regulating is a multi-dimensional problem (see, for example, Hadwin & Oshige, 2011), and this topic is outside the boundaries of this research. Yet, according to Black and Wiliam (2009) formative assessment has the potential to be a contributor to self-regulation. Perry and Winne (2013) argue that if conceptualized and implemented effectively, formative assessment practice should yield some evidence that students are at least becoming “aware of strengths and weaknesses they bring to tasks.” (para 3). Evidence of this degree of self-awareness would contribute to my overall appraisal of the value of formative assessment in both lab and clinical instructional contexts.

In the third study, I examine the reflection assignment as a component of clinical nursing curriculum and consider the potential of this structure for reflection on learning for promoting self-regulation of learning. In this self-study, too, I bring my teacher lens to my work as an
instructor, examining my feedback to students as fuel to drive students’ learning and to promote my learning.

As nurse-teacher-researcher I anticipate that deliberate efforts to examine instruction in these three connected self-studies will advance my instructional practice along the trajectory from unconscious incompetent to conscious incompetent, conscious competent, and unconscious competent (J. Medves, personal communication, March 3, 2017; Higginson & Hicks, 2006). Reporting my learning along this journey has potential for building capability in clinical nursing education.
References


Chapter 3: Anchoring Methodology and Methods in Theoretical Frameworks

The Research Design

Three discrete studies and a synthesizing final chapter address the purposes of this study. The three studies were conducted over a three-year period (2012, 2013, 2014). During this period, I accepted contracts in three different university undergraduate nursing programs. My task throughout was to learn about (a) the challenges experienced in maintaining a mindset of continuous professional learning (CPL), (b) the complexities and value of implementing self-study as a mechanism for my own learning, and (c) students’ perceptions and the consequences of adding formative assessment to my pedagogy. To arrive at these understandings I used primarily a qualitative methodology, collecting data that were rich, thick, and contextually bound (Stake 2010). The exception occurred in Study Two where my attempt to learn about the experiences of colleagues and students engaged in formative assessment included both interviews and survey instruments. A description of this study can be found in Chapter 5.

Using a Qualitative Methodology

Qualitative methodology has already been demonstrated to have value in building theory and practice related to professional and clinical knowledge in nursing (e.g., Anthony & Jack, 2009; Haraldseid, Friberg, & Karina, 2015; Thorne, 2008). While a qualitative methodology can encompass a variety of methods, the philosophic stance inherent in the methodology is founded on a constructivist perspective (Merriam, 2009).

Constructivism. Constructivism, a theory described by Jean Piaget, interprets the construction of knowledge as a consequence of interaction between an individual and an other. The premises for this perspective are Piaget’s description of learning as “an act of accommodation, assimilation, and equilibration” (as cited in Brandon and All, 2010, p. 90).
Students construct new ideas based upon their current or prior knowledge. Information that cannot be interpreted or does not fit with current or prior knowledge is not assimilated. Brandon and All, examining constructivism in nursing education, reported that instructor and student responsibilities for learning in nursing education align with a constructivist learning theory. The present study, which examines the learning of teachers and students around the use and value of formative assessment strategies in clinical nursing education, aligns well with Brandon and All’s work. Black and Wiliam’s (2009) formative assessment strategies initially advance learning by clarifying students’ understanding of learning objectives and success criteria and proceed through processes of active learning. This learning is apparent in the quality of instructor-designed learning tasks and decisions to advance student learning, in the quality of feedback that instructors give and receive, and in the extent to which students are successfully activated as learning guides for themselves and others. Brandon and All emphasized that “the task of the educator is to design a learning format that is aligned with the student’s current state of knowledge” (2010, p. 90). They suggested instructors must continuously assess student learning while gradually advancing the student’s zone of proximal development. By this means, “as each new activity is encountered, the student uses previous knowledge to develop more complex ideas and integrate new information” (p. 90). The responsibility of the instructor is to encourage students to self-assess learning and then, through questioning, “students learn the strategies that help them become expert learners. The process of active learning gives students the ever-broadening skill of lifelong learning” (p. 90). Joseph and Juwah (2012) and Kantar (2014) also argue for a problem-based constructivist approach to undergraduate nursing education on the grounds that it better prepares students for professional nursing practice.
Interpretive description. This orientation was appropriate for my research because I was not focusing on prediction, explanation, or generalization. Rather, my purpose was to describe, understand, and interpret phenomena of interest, thus aligning my research with an interpretive, descriptive approach (Thorne, 2008). I was challenged to document, analyze, and recursively interpret both what I was learning and what was being learned by my students within and across the three self-studies (Stake, 2010). I set about to describe my experiences and those of my students, my thought processes and reflections, and the decisions I made when I employed self-study as a form of CPL. I analyzed these data as I went along to better understand how Black and Wiliam's (2009) five formative assessment strategies might be implemented, and subsequently how they could influence learning within a clinical educational context. I also used these data to interpret my experiences and those of my students. This was required to make meaning of our joint efforts. In attending carefully to these responsibilities and positioning my research within an interpretive paradigm (Thorne, 2008) I worked to generate defensible and transferrable insights into the nature of CPL, self-study, and the practice of formative assessment.

Theory of Formative Assessment

Black and Wiliam (2009) affirmed that for assessment to be considered formative, the instructor, student, or student peers must use the evidence collected about student learning to inform next steps in instruction and learning. The assumption is that instructional decisions based on this evidence will more powerfully support learning than decisions made without evidence of how student learning is progressing.

To explicitly distinguish the theory of formative assessment from a theory of teaching and learning, Black and Wiliam (2009) emphasized the critical features of the practice, stating
that “it is clear that formative assessment is concerned with the creation of, and capitalization upon ‘moments of contingency’ in instruction for the purpose of the regulation of learning processes” (p. 10). Formative assessment is thus a contributor to the occurrence of teachable moments (Glasswell & Parr, 2009).

The term “teachable moment” is common in the professional language of many teachers. We use it to describe the times when we have found a valuable and authentic opportunity to teach something useful—something we think needs teaching—to someone who needs to learn it and who is ready to learn it right then (Glasswell & Parr, 2009, p. 354).

Black and Wiliam concluded that using the five formative assessment strategies (Wiliam & Thompson, 2008) for the purpose of fostering and capitalizing on moments of contingency was the most powerful way to foster student learning and thus formed the core of their theory of formative assessment.

Subsequently Wiliam (2011) operationalized these formative assessment strategies for classroom teachers and presented practical classroom examples of how to implement each strategy. The five strategies foundational to formative assessment are as follows:

1. Clarifying, sharing, and understanding learning intentions and criteria for success
2. Engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning
3. Providing feedback that moves learning forward
4. Activating learners as instructional resources for one another
5. Activating learners as the owners of their own learning (Wiliam, 2011, p.2).

Support for the effectiveness of each strategy is found in the work of others who have examined formative assessment. Torrance and Pryor (2001) looked at the interaction of and teachers’ observations of learning process and products, their questioning strategies, the feedback provided to students, and subsequently the judgments made about student performance. They concluded there was significant benefit to learning when both the task and quality criteria were made explicit. Sadler (1998) argued that students need quality feedback from multiple
sources. This argument grew out of previous work (1989) where Sadler described the importance of designing instruction that helps students to develop expertise in evaluating the quality of their own work. Both Boekaerts and Corno (2005) and Hattie and Timperley (2007) conducted research on the power of quality feedback, demonstrating its importance in triggering and supporting the self-regulation of learning.

Theoretically, all five of Black and Wiliam’s (2009) strategies contribute to student learning by influencing the quality of student thinking and allowing students to be active participants in decisions about their learning. These contributions appear particularly to be appropriate in the education of nursing students. It is critical that nursing students develop an awareness of their strengths and weaknesses and gradually develop independence in monitoring and making decisions about what, when, where, and how learning needs to occur. This skill distinguishes practitioners who are both prepared and capable of assuming responsibility for maintaining their professional competence. If graduating nurses are expected to be continuous professional learners, the pedagogy of clinical instructors should provide students with practice in these self-regulating skills.

Clark (2012) proposed that the theory of formative assessment facilitates instruction and improves student learning because it purposefully adapts teaching to meet student needs. Formative feedback, he argued, supports learners’ development of “self-regulated learning strategies, which support learning, improve outcomes and actualize the drive for lifelong learning” (p. 205). If classroom research is showing a promising link between formative assessment and students’ development as self-regulated academic learners, then it is reasonable to assume that formative assessment strategies will support nursing students in beginning to regulate their learning in a clinical education context.
Koh (2008) supported the argument that formative assessment should be an essential element of pedagogy in nursing and confirmed that students who took an active role in the assessment of their learning were able to engage in deeper thinking and were more motivated to engage in learning. In professional education, self-regulation and performance are two critically important processes by which

... learners personally activate and sustain cognitions, affects, and behaviors that are systematically oriented toward the attainment of personal goals. By setting personal goals, learners create self-oriented feedback loops through which they can monitor their effectiveness and adapt their functioning” (Zimmerman & Schunk, 2011, p. 1).

In nursing education, self-regulation is a professional expectation and a competency required for the continuous improvement of practice (College of Nurses of Ontario, 2002).

Koh (2008) also argued that the real challenge in adopting formative assessment was to “systematically embed formative assessment in curriculum practices and make it a more engaging and rewarding learning experience for both students and teachers” (p. 229). The formative assessment strategies presented by Wiliam and Thompson (2008), Black and Wiliam (2009), and Wiliam (2011) provided a framework for practice with this goal in mind. This guidance had shaped my own initial efforts at formative assessment.

While I felt confident that I had grasped the theory and thus the potential of formative assessment, my professional learning as captured in this research was triggered by my need to test out the theory in practice and, as well, to see how formative assessment was being integrated within the community of clinical instructors. I began my work with limited knowledge of how, if at all, other nursing instructors working in contexts similar to mine used formative assessment. My hope was to (a) learn how their ideas and practices might inform my own, (b) discover the
extent to which the ideas and practices of my colleagues were grounded in current assessment theory, and (c) gather evidence about the extent to which students either recognized or valued formative assessment and the opportunities it provided for self-regulation.

**Conditions Leading to My Qualitative Approach**

During my research I did not practice at a single research site. This made it problematic to examine the perspectives of others with whom I was working (Chuang & Abbey, 2005; Adams, Carryer, & Wilkinson, 2015) or learn about the students I would be working with in advance (Oliffe, 2005). I am a practicing adjunct clinical instructor who takes on teaching responsibilities as these become available. I work with new students in a variety of contexts. Beginning in 2012 I made a concerted effort to use these teaching contracts as an opportunity to orchestrate high-quality learning through the meaningful use of formative assessment. In examining my teaching practice, I was challenged to use a subjective lens, but this lens and thus my observations and reflections were intentionally focused by a theory of formative assessment as advocated by Black & Wiliam (1998a, 1998b, 2006, 2009) and others as cited above.

**Self-Study.** Although my research involved a reflective process for CPL, the goal was not only to promote my own professional learning and improve my teaching practice but also to contribute to the fields informing my inquiry. I was looking for an approach where the person conducting the inquiry was required to adopt the stance of a scholar/practitioner—one who would, as part of her effort, be sensitive to the criteria required to participate in knowledge building. Before settling on self-study as my approach to CPL, I conducted a review of the self-study literature following the systematic process implemented in my doctoral comprehensive examination (Woods, 2011).
Samaras and Freese (2006) defined self-study as “a component of reflection in which teachers are asked to systematically and critically examine their actions and the context of those actions as a way of developing a more consciously driven mode of professional activity” (p. 22). Given that I would be conducting a study in CPL, it was critical that any insights I generated about formative assessment and any decisions I made about next steps in my professional learning became explicit. Only in this way would it be possible to trace my growth. Samara and Freese (2006) were also early advocates of the “extension of self-study” (p. 18) to other practitioners in other professional contexts. They named the application of this extension self-studyship (p. 18), in hopes of reserving the term self-study for teacher educators. In studying my practice as a clinical nurse instructor, however, I felt justified in adopting the term self-study. Like teacher educators, I am responsible for introducing novices to the demands of a highly complex profession. In addition, my goals as a clinical nurse instructor are identical to those of teacher educators, namely, to engage in the close study of my practice as a way to improve my teaching and students’ learning (Lyons, Halton, & Freidus, 2013).

**Self-Study as a Research Methodology**

Self-study has been described as a methodology (Merriam, 2009), a method (Watson, Stimpson, Topping, & Porock, 2002), an approach (Cohn, Haomiao, & Larson, 2009), a framework (Donnell, 2010; Turner, 2010), and a strategy to support teaching or learning or to measure outcomes (Cant & Cooper, 2010; MacCann, 2008). In this thesis, self-study is presented as a methodology, in part because of the strong parallels it has to the use of case study as a methodology. Both self-study and case studies address research questions that probe for new understandings situated within a specific context. They address both the *what* and the *so what* questions in examining how things work (Stake, 2010). Case study and self-study research
methodologies are similar in that they can employ a variety of qualitative and quantitative research methods, which ultimately contribute to the creation of context-dependent knowledge (Merriam, 2009). Where they diverge is in their focus. Case study sets the boundaries for inquiry on an “other” person, group, or context (Stake 2010), while self-study is bounded by the experiences of the researcher (Loughran, 2007).

Building upon Pinnegar’s (1998) conceptualization of self-study as “a methodology for studying professional practice settings” (as cited in Laboskey, 2004, p.817) and Mishler’s (1990) perspective on validity which is based upon researchers “tacit understanding of actual, situated practices in a field of inquiry” (p. 415), Laboskey (2004) identified five critical characteristics of self-study. “It is self-initiated and focused; it is improvement-aimed; it is interactive; it includes multiple, mainly qualitative, methods; and it defines validity as a validation process based in trustworthiness” (Laboskey, 2004, p. 817).

In this thesis, self-study offers my insider perspective as a clinical instructor. Alderton (2008), building upon the work of Laboskey (2004), reinforced this point, reminding me that “a key characteristic of self-study that separates it from other forms of practitioner inquiry is the importance of the self in practice and research” (p. 99). He argued that the “significance of self-study is not what it shows about the self but its potential to reveal knowledge of the educational landscape” (p. 99).

Alderton (2008) and Bullock (2009) both asserted that self-study is a methodology because it encompasses a philosophical stance on the most appropriate way to develop teacher knowledge. Capobianco (2007) agreed, saying that self-study is a particularly useful orientation for new teachers beginning to know and to understand teaching and attempting to improve and
better understand their practice. While I am not a new teacher, at the beginning of this inquiry I was new to the concept of formative assessment and how to think about implementing it.

Self-study methodology, as a form of CPL (Samaras & Freese, 2006), required that I build knowledge about the improvement of practice (Alderton, 2008). Within the context of this study the practice I focused on was my use of formative assessment and its influence on teaching and learning in a clinical setting. In Chapter 7, understandings generated in the following three self-studies are critiqued against what is known about formative assessment in the current educational literature. Engaging and conducting self-study in this way is intended to support both knowledge transfer (Aita, Richer, & Heon, 2007) and the adaptation of knowledge into a new context (Straus, Tetroe, & Graham, 2009).

Employing Self-Study in this Research

Timeline and Study Contexts

My formalized CPL began during the winter of 2012. At this time I was a clinical instructor with 12 second-year nursing students in a semester-long clinical skills simulation course. Concurrently I was a clinical instructor in a long-term care setting with six second-year nursing students. For students in both groups this represented their first clinical experience. I employed self-study as an approach to examine my use of formative assessment and its influence on my instructor practice and student learning in each setting.

My learning continued during the winter 2013 semester. At this point, I was looking to compare my experiences of formative assessment with those of colleagues who were teaching the same courses. I was also interested in discovering how their students thought about the practices and how they valued formative assessment, if at all. Course coordinators were supportive in the design and distribution of invitations for both instructors and students to
participate in an electronic survey, for instructors to discuss their experiences in a one-on-one interview, and for students to explore their ideas through focus groups. Lack of meaningful participation at this site led me to issue similar invitations to a second cohort of instructors and students at two additional institutions in the spring/summer of 2013.

The unanticipated learning that came from my efforts to reach out to other colleagues and students led me to seek out another clinical practice setting where my self-study could continue. During the spring/summer of 2014 I was hired to work with eight first-year students and one third-year student (a peer mentor) at a school of nursing in a university in Nova Scotia. What was unique about this context was the use of a curriculum-mandated assessment instrument intended to promote self-reflection and provide feedback for learning. Students used this instrument twice during their course.

**Ensuring the Trustworthiness of the Research Findings**

Self-study methodology allowed me to use a variety of approaches for my inquiry. I found that each context had unique data collection demands. Table 1 summarizes how the purpose and the research questions shaped my overall inquiry. In presenting this table, I demonstrate the importance of formalizing inquiry. The details provided enable those interested in conducting self-study to observe the multiple ways in which I collected data and to judge the adequacy of the data collection and analysis strategies I used to address the purpose of my research. In addition, however, the table can be used by others to trigger consideration of how data collection and analysis might differ depending on the focus of their self-studies.
Table 1
Matrix of Thesis Research

<table>
<thead>
<tr>
<th>Overarching purpose of the research</th>
<th>Study dates</th>
<th>Focus of inquiry</th>
<th>Data collection</th>
<th>Analytic strategies</th>
</tr>
</thead>
</table>
| • To examine the processes and outcomes related to the use of self-study as a method of continuous professional learning (CPL)  
• To contribute new understandings to the knowledge bases that currently shape self-study and formative assessment  
• To offer insights to other clinical instructors who may be interested in either adopting self-study as an approach to CPL or in integrating formative assessment as one strategy in support of student self-regulated learning | | | |

<table>
<thead>
<tr>
<th>Emergent research questions</th>
<th>Study dates</th>
<th>Focus of inquiry</th>
<th>Data collection</th>
<th>Analytic strategies</th>
</tr>
</thead>
</table>
| 1. How does a self-study approach support an instructor’s efforts at CPL, specifically about use of formative assessment in nursing? | January 2012 to April 2012 | Instructor | • Reflective journal  
• Observations in clinical and in simulation clinical settings  
• Course documents | • Documentation organized and framed by each of five formative assessment strategies  
• Data organized by date, clinical skill, and focus for learning allowing for leveled analysis  
• Reflections examined using constant comparison with each strategy (Wiliam, 2011), looking for themes and patterns  
• Interpretive description (Thorne, 2008) |
| Student | • Feedback in form of written comments recorded at end of each lab session | • Identifying themes in student comments |
| 2. How do colleagues who are instructors in clinical nursing use formative assessment, if at all, and to what extent do students recognize and value these strategies? | January 2013 to October 2013 | Instructor | • Reflective journal  
• Online surveys with clinical instructors  
• In-depth interviews with clinical instructors | • Identifying themes and patterns within formative assessment strategies within the instructor groups in responses to survey questions and interview questions |
| Student | • Online surveys with nursing students  
• Interviews with nursing students from initial and additional cohorts of students | • Identifying themes and patterns within formative assessment strategies within the student group in responses to survey questions and interview questions |
| 3. How well does the curricular expectation that students reflect on their own learning serve the intended purpose of supporting independent self-regulated learning? | May 2014 to July 2014 | Instructor | • Reflective journal  
• Feedback on student written reflections  
• Course documents | • Instructor documentation of observation or comments by student(s) as supporting learning |
| Student | • Student journal reflections | • Reflections examined serially by student and across group of students for evidence of learning about the nature of self-assessment and reflection |

Schwandt (1993) defines validity in qualitative research as the accuracy of the representation of a participant’s reality of the phenomena, such that inferences can be made from
the data. In both Study One (2012) and Study Three (2014), I embraced consistent procedures for observing learning, for designing opportunities for formative assessment, and for capturing my own reflective responses to each instructional experience. I made observations in the clinical lab by continuously circulating around the skill stations. My focus was to provide additional feedback on the students’ application of the skills and to respond to their requests for help. In the practicum, my role was to observe at a comfortable distance each procedure assigned to the students. I took notes on each student’s level of skill at various stages of performance in the overall task and used these to give immediate and specific feedback and an overall assessment of the performance. By observing students closely and regularly for the explicit purpose of determining how best to support their learning, I was able to monitor patterns of individual growth and become better at accurately assessing the effectiveness of my practices.

When designing opportunities for formative assessment, I connected each decision to one or more of the strategies that Black and Wiliam (2009) determined to be important contributors to learning and achievement. By aligning my own practice to a theoretical framework, I was able to report on the frequency and importance of both the strategies and my methods for enacting these strategies. In Study Two (2013), my decisions about survey and protocol design were anchored in theories of quantitative and qualitative inquiry. In addition, all letters of information, consent-to-participate forms, online surveys and interview questions were prepared in English and French. I used the services of a professional translator, thus ensuring that respondents would interpret questions similarly, regardless of their first language.

Reflective practice is the cornerstone of self-study. But reflections are more than random remembrances of occurrences. “Reflective practice is a process by which you: stop and think about your practice, consciously analyse your decision making and draw on theory and relate it
to what you do in practice” (Chartered Society of Physiotherapy, n.d.). Reflective practice as it is reported on within this thesis is grounded in this orientation. Immediately before each occurrence of clinical instruction I reviewed the formative assessment strategies (Black & Wiliam, 2009) and connected one or more of these to the curriculum goals. This became my formative assessment plan. Immediately after each instructional occurrence I described my enactment of each strategy and analyzed my effectiveness on the basis of evidence of students’ increasing competence in performing the clinical skill. By maintaining consistency in both the timing and the structure of my reflections I was able to examine patterns and themes in my own behaviour and in my use of formative assessment theory.

In this research the self-study of my instructional practice and professional learning was always conducted in contexts where I was assigned to work as a clinical instructor. This close approximation between the context for knowledge development and the context for practice gives ecological validity to the findings (Gouvier, Barker, and Musso, 2010; Sadler, 1998). In each instructional context, I had to adapt my practice and my inquiry to the resources and limitations of the clinical setting and to the required curriculum, including any prescribed assessment policy, as well as to the variety of learning needs of the students who were assigned to my simulation and practicum courses. These are the kinds of adaptations faced by most clinical instructors. For these reasons, I would expect my efforts at CPL, self-study, and the implementation of formative assessment to parallel the conditions that might be faced by other instructors. The knowledge and understandings that I extracted from my learning processes are thus more likely to be viewed as having “real-world” credibility. These are desirable conditions if the processes and findings of this study are also to have transferability.
Adapting the Methodology

It should be noted that a common feature in the self-study literature is the presence of a critical friend, someone who collaborates in the reflection and gives the teacher constructive feedback without judgment. As a clinical instructor I had access to a course coordinator or course professor for urgent student-related needs, but as a contracted part-time adjunct clinical instructor I was not easily identifiable as a faculty member and typically not in regular contact with other nursing faculty. Consequently, I worked primarily independently in an assigned clinical setting with my assigned group of students. Initially, then, only my supervisor and members of my committee, who agreed to check my interpretation of data (Loughran & Northfield, 1998), were identified as critical friends in my self-study. A variation on the notion of critical friend did emerge as a consequence of my experience of interviewing instructors and students in 2013. This is explored in more depth in Chapter 4.

While the case has been made above that the findings presented in this thesis are trustworthy, findings are not appropriate for transferability unless they have been generated using ethical methods. Research ethics approval came from the General Research Ethics Board at the university where I was a doctoral student and from all universities and colleges where I conducted the inquiry supporting this thesis (see Appendices A, B, C, D, E).
References


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Chapter 4: Formative Assessment in Clinical Nursing Instruction: A Self-Study

The continuous and sometimes rapid advancement of knowledge and innovation in modern professional practice combined with the pressure to integrate emerging and effective technologies has made continuous professional learning (CPL) essential for today’s practitioners (Friedman & Phillips, 2004). While formal courses and workshops continue to be popular ways of advancing professional learning (Bulman, Lathlean, & Gobbi, 2014) the last two decades have seen a rise in more workplace-based approaches. In educational contexts, for example, the expectation for CPL has triggered the growth of self-directed inquiry-based projects (Brookhart, Moss, & Long, 2010; Williams, 2001), the formation of collaborative professional learning communities (Attard, 2012), and the engagement of practitioners in instructional rounds, a strategy for shaping system-wide change initiatives (DeLuca, Klinger, Pyper, & Woods, 2015).

In nursing, professional learning takes on many forms. Nurses may choose to complete an international certification such as the Trauma Nursing Core Course or do a refresher course in a nationally required competency such as cardiopulmonary resuscitation. Some nurses who work in clinical settings may also have to integrate new technologies such as electronic records and update their knowledge to advance health care procedures such as ensuring that patients receive the most appropriate transfusion of blood products. For these nurses CPL may take the form of context-specific workshops and training.

The Canadian Nurses Association characterizes registered nurses as self-regulated professionals who work autonomously and collaboratively with other professionals (Canadian Nurses Association, 2015). The expected standards of practice for registered nurses in Ontario (College of Nurses of Ontario, 2015) and Nova Scotia (College of Registered Nurses of Nova Scotia, 2015) explicitly state to their memberships that they must continue to improve their
competencies in their areas of clinical practice.

For experienced nurses who choose to become clinical instructors there is the additional obligation of becoming an effective educator. The role of educator is, in itself, a complex one. Shulman (1986) described how expert teachers must learn to craft instruction in a way that draws on content knowledge, pedagogical content knowledge, and curricular knowledge. For clinical nursing instructors well versed in the scope and sequence of building the skills of nursing, the application of pedagogical knowledge, including when, why, and how to build in assessment and evaluation, may be the most challenging feature of their job. Typically, there is limited formal induction for nurses taking on the role of educator. In addition, in clinical simulation and practicum contexts instructors tend to work independently. These conditions often mean that instructors are left to their own resources in deciding how to implement assessment and evaluation. Adjunct instructors often do not have ready or convenient access to the learning that comes through workshops and certificate programs in pedagogy. This is where self-study as a workplace-based approach to CPL may make a significant contribution.

Research Purpose and Question

At its simplest, self-study is a form of learning “in which one is, to a large extent, responsible for one’s own instruction” (American Heritage Dictionary, 2016). In practice it is “the study of something by oneself without direct supervision or attendance in a class” (Random House Kenerman Webster's College Dictionary, 2010). Self-study is a thoughtful, deliberate, and critically reflective approach for examining one’s actions in practice for the purpose of personal and professional development (Samaras & Freese, 2006; Loughran & Russell, 2007). The overall purpose of this inquiry was to explore the use and contributions of self-study. Specifically, I addressed the question: How does a self-study approach support an instructor’s
efforts at continuous professional learning, specifically about the use of formative assessment in nursing?

**Background**

**Introduction to the Self-Study Process**

As a clinical instructor, I was interested in finding a systematic way to improve the work I was doing with my nursing students. I read stories by practitioners about how to improve their pedagogy through a disciplined approach known as self-study (Samaras, 2013; Williams & Ritter, 2010). I was attracted to this approach because I could do this learning in the context of my own classroom, and I could control how and when I would work on improving my teaching. Most importantly, I would be making the decisions about how and what I would learn on the basis of my learning needs and the needs of my students.

To frame the challenge ahead, I began by conducting a formal investigation of self-study as a method of professional learning. The motivation for self-study begins with the identification of a professional problem that is of specific importance to the practitioner. Individuals typically engage in self-study to address a discomfort with their practice. The discomfort may be the result of a gap in skill or a disconnect between current practice and desired practice (Donnell, 2010; Drevdahl, Stackman, Purdy, & Louie, 2002). For instructors, self-study requires that the practitioner study how their decisions around instruction are received and used by their students. While the method is called self-study, it is in understanding the interactions that occur in the space between the instructor and students that clarity is brought to the study of the “self” (Bullough & Pinnegar, 2001).

An instructor can craft new ways of approaching instructional practice from resources gathered from formal professional development opportunities, by having conversations with
colleagues whose practices are valued, and by reviewing reports of proven or “best” practices, typically found in research literature (Duke, 2016). The promise of self-study is that it can create a habit of inquiry around the improvement of practice (Alderton, 2008; Bashiruddin, 2006).

Users of this approach to professional learning will be provoked and challenged to continue their improvement efforts as they experience, with their students, the consequences of their work. Sometimes a professional’s efforts do not yield the hoped-for outcomes, but they will always provide insights into what might be the next steps for improvement. In this way, self-study practices are used to guide a journey of contextually grounded, data-informed professional learning (Bullough & Pinnegar, 2001). When I began my self-study I was aware my actions might not always immediately improve my use of formative assessment. While I knew I had to be prepared for the discomfort that might come from not seeing immediate change, I was eager to take on the challenge of interpreting and making sense of the learning both my students and I were doing.

A Story of Self-Study: Formative Assessment in Clinical Instruction

What Practice Am I Improving?

My decision to narrow the focus for my self-study onto formative assessment was influenced by the learning I had done in a teacher education degree program (2004), my prior experience as a clinical nursing instructor (2009), my studies as a doctoral student in assessment and evaluation (beginning in 2009), and the subsequent appeal of Black and Wiliam’s (1998a, 1998b, 2006, 2009) research on the influence of formative assessment on learning and achievement.

Clinical instructors in nursing typically conduct two kinds of evaluation (Star Mahara, 1998). In summative evaluation, instructors are required “to make a definitive judgment as to
whether a student’s practice meets the standards of the profession, and to determine whether the student has met the requirements of an academic course” (p. 1340). In classic formative evaluation, planned educational activities are implemented, the learning efforts and outcomes of students are observed, and then instructional activities are modified to help students progress towards effective nursing practice.

In current educational theory, formative evaluation intended to support instructional practices and the student’s growth towards established learning expectations is called assessment for learning. In many Canadian school systems, assessment designed specifically to help students become more aware of their own learning processes is referred to as assessment as learning (Earl, 2003; Earl & Katz, 2006). Anchoring their approach in constructivist theories of learning, these authors made the case that self-assessment triggers a metacognitive process. Of particular interest to me was the claim that assessment could support the practice of self-monitoring and self-regulating (James, 2006), as these are the skills most closely associated with successful CPL for nurses.

Before adjusting my practice, I would need to understand whether there were implications in describing my self-study as work within formative assessment or assessment for and as learning. Guidance on this decision came from Black & Wiliam (2009):

Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited (p. 9).

It became apparent that assessment for and as learning, as practices, included students in the collection, interpretation, and decision-making about next steps in learning. Doing so, however, did not change the notion that the practice, as a whole, was
formative assessment.

**Operationalizing the Self-Study**

My next step was to clarify the new roles that students and I would play in shaping formative assessment in my classroom. Once again, Black and Wiliam (2009), building on the work of Ramaprasad (1983) and Wiliam and Thompson (2008), provided valuable direction. To create a plan to systematically build formative assessment into each of my classes, I started by examining Ramaprasad’s three key processes for promoting successful teaching and learning. I then classified Black and Wiliam’s formative assessment strategies (2009) under the appropriate process and assigned responsibility for each of these strategies to the appropriate person. The result allowed me to plan how to systemically build formative assessment into each of my classes (See Table 1). I distributed the responsibilities for implementing the five strategies across myself (the instructor), the students, and the students as peers, but it was my responsibility as the instructor to conceptualize how to structure the learning environment so that students could successfully adopt their responsibilities. Table 1 provides examples of how I encouraged all of us to assume our formative assessment responsibilities.
Table 1
*Transferring and Integrating Formative Assessment Strategies from Education to Clinical Nursing Instruction (adapted from Black & Wiliam, 2009, p. 8)*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Where the learners are going</th>
<th>Where the learners are right now</th>
<th>Getting learners to the target</th>
</tr>
</thead>
</table>
| **Instructor** | Strategy 1. Understand, discuss, and clarify learning intentions and criteria for success. **Examples-in-Action:**  
  • Review specific curriculum performance targets for each class and assign pre-class readings related to these.  
  • Use class summary to introduce and answer questions on learning intentions for next class. | Strategy 2. Facilitate discussions and implement learning tasks that provide evidence of students’ current understandings. **Examples-in-Action:**  
  • Circulate during student practice of skills in simulation lab and give appropriate feedback on observed performance.  
  • Schedule student administration of medications according to student readiness as determined by my discussion with each student about “rights”, safety checks promoting the correct way to administer medication. | Strategy 3. Provide feedback most appropriate for moving learning forward; modify approaches and resources for learning. **Examples-in-Action:**  
  • Complete midterm evaluation and meet with each student to review and discuss both student and instructor evaluations of the student’s learning.  
  • Allocate time in post-conference for around-the-table student reporting of their evolving learning needs. Give appropriate feedback and identify new opportunities for students. |
| **Student**   | Strategy 1. Attend to and understand, and ask questions, if necessary, about the learning intentions and criteria for success. **Examples-in-Action:**  
  • Model the skill or show video to provoke questions.  
  • Create skill stations with procedural checklists to provoke thinking about criteria for success. | Strategy 5. Self-monitor performance and seek out appropriate feedback and resources to help move the learning forward. **Examples-in-Action:**  
  • Identify additional resources; for example, recommend clinical math skills textbook to demonstrate alternate methods of medication calculation.  
  • Explicitly redirect students to textbook content and to online resources for answering questions about procedural steps. | |
| **Student peer** | Strategy 1. Understand and be prepared to clarify for others the learning intentions and criteria for success. **Examples-in-Action:**  
  • Disseminate evaluation forms and review and discuss criteria for successful performance of two clinical skills.  
  • Redirect students to use textbook procedural steps for giving peer feedback during practice at skill stations. | Strategy 4. Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources. **Examples-in-Action:**  
  • Develop partner or group activities such as role-playing with assigned participant and observer roles to facilitate opportunities for peers to practice giving constructive feedback.  
  • Share practice stories from my clinical nursing experience to support instructor feedback, to “make real” or to highlight the theory-to-practice connections. | |
I understood that an explicit commitment to CPL would require that I engage in iterative planning, acting, reflecting, and decision-making. I first prepared for and then implemented the formative assessment activities that seemed appropriate for each day’s curriculum content. Planning and implementation were natural processes for me, as these are core instructor behaviours. New for me, however, were the additional responsibilities of explicit documentation, reflection, and analysis as a precursor to making decisions about next steps.

To address these responsibilities I used a reflective journal. Using the journal helped me to ensure that I systematically documented the influence and consequences of integrating formative assessment. This work included describing the responses of students to my efforts. I also used the journal to capture my reflections on my actions and any new ideas or insights that arose as I was reflecting. Finally, the reflective journal provided the data that I used to carefully interpret and construct meaning around my effectiveness in orchestrating formative assessment as a way to move student learning forward. I repeated this cycle after every instructional episode. After each teaching session I used this evidence to inform the decisions I made about my next steps.

Of the three new responsibilities, the most challenging one for me was the analysis and interpretation of my journal data. Data analysis was ongoing. Keeping in mind that I was working concurrently in a clinical practicum and a simulation laboratory, it was essential that I be able to study my practice over time, within different contexts, and across curriculum content. As a first step, I re-formatted data from the journal and transferred the information into an electronic chart. This chart allowed me to view by date and context (in numerical order of each clinical practicum or simulation lab session) the ways in which any or all of the five formative assessment strategies were being addressed.
Data about the use of the five strategies in clinical nursing instruction were coded by context: CP for clinical practicum and CS for clinical simulation. The day, month, and year of the class were indicated with a numerical sequence following the two letters used for context. For example, CS250112 represents a journal reflection on a clinical simulation lab conducted on January 25, 2012. This coding by context was necessary if I was to understand the limitations, if any, that context might have on the use of any of the five formative assessment strategies. By employing a constant comparative approach (Glaser & Strauss, 1967) I could continuously examine any natural tendencies I had for using particular assessment strategies in particular contexts and make adjustments to this balance, if necessary, on the fly. I could also determine whether outcomes for specific skills were being supported equally well through the use of formative assessment. An excerpt from this electronic chart demonstrates this organization (Table 2).
Table 2

*Examples of Examining the Implementation of Formative Assessment Strategies in Two Clinical Nursing Education Contexts*

<table>
<thead>
<tr>
<th>Clinical context, date, and curriculum focus</th>
<th>Strategy 1</th>
<th>Strategy 2</th>
<th>Strategy 3</th>
<th>Strategy 4</th>
<th>Strategy 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS250112 Lab #3 Positioning, transfers, pressure sores, restraints</td>
<td>Reviewed recommended readings. Demonstrated use of linen and mechanical lift for transfers.</td>
<td>Organized skill stations for student practice of positioning and transferring. Provided crutches and instructional pamphlets for students to fit crutches and practice crutch walking. Circulated during practice to observe and answer questions. Listened to student comments for evidence of understanding.</td>
<td>Acknowledged students referencing course resources when making suggestions for transfers. Identified good body mechanics. Commended safe performance in positioning and transfers. Called attention to observed unsafe practices.</td>
<td>Welcomed assistance of two students with mechanical lift experience from their work as PSWs. Encouraged students with crutch walking experience to share tips for using crutches.</td>
<td>Referenced pre-readings and emphasized the importance of student preparedness for labs. Introduced examples from my clinical practice to make explicit theory-to-practice connections. Monitored student discussions and encouraged use of procedural steps and rationale in course textbook. Provided opportunity for student questions at end of each lab.</td>
</tr>
<tr>
<td>CP020312 Clinical Day #2 Working with PSWs</td>
<td>Implemented plan for each student to work with one staff PSW. Created client assignment in collaboration with staff PSW, student, and RN. Reviewed clinical course guidelines</td>
<td>Encouraged and observed students helping to serve and feed clients. Discussed incident of a client choking in the dining room during our post-conference and made explicit connections to nutrition, special diets, assisting with feeding, and safety.</td>
<td>Provided feedback to individual students throughout the clinical day on the basis of my observations or feedback from others (clients, staff, family). In post-conference discussed response of staff to a choking client as an example of preparation and prior experience for</td>
<td>Assigned two or three students to each clinical area. Encouraged students to assist PSWs and each other.</td>
<td>Collaborated with RN and PSW staff to facilitate student access to care plans and charts of assigned clients. Consulted with PSW and RN staff to determine appropriate client for each student assignment. Initiated discussion in post-conference around developing a nursing care plan specific to</td>
</tr>
</tbody>
</table>
for reflections and nursing care plans. knowing what to do and how to respond. the needs of their assigned client.

Note. The day, month, and year of the class were indicated with a numerical sequence following the two letters used for context. For example, CS250112 represents a journal reflection on a clinical simulation lab conducted on January 25, 2012. PSW = personal support worker; RN = registered nurse.
The electronic data chart enabled me to view the types of formative assessment strategies that I used to support learning around specific learning outcomes as well as the frequency with which I used each strategy. Additionally, it facilitated a closer examination of my formative assessment practices with respect to specific clinical skills. As I was particularly interested in teaching and learning around the administration of medication, I extracted data from three medication labs and one clinical practicum session and displayed the text in a new chart (see Appendix G). An excerpt from this chart is shown in Table 3. This data collection and analysis structure may be useful for clinical instructors engaging in self-study as a CPL mechanism. The first column displays the calendar dates when medication administration was a curricular focus. In the second column I report my efforts to implement each of the five assessment strategies. In the third column I report my preparation, my students’ response, and the new thoughts and ideas emerging from my reflection on my instructional practice. In the final column I report the decisions I made or actions I planned towards my CPL. This table shows how ongoing systematic reflection worked to shape my new beliefs, personal views, and employment of formative assessment strategies to promote learning about safe medication administration.
#### Table 3
An Excerpt from Examining Teaching and Learning around the Preparation and Administration of Medication

<table>
<thead>
<tr>
<th>Date and source of data and curricular focus</th>
<th>Formative assessment practice(s) / focused reflection</th>
<th>Insights from analysis</th>
<th>Plan for next steps</th>
</tr>
</thead>
</table>
| CS150212 First medication lab. Focus: preparation and administration of oral medications | Strategy 1
Understand, discuss, and clarify learning intentions and criteria for success.
(Instructor)
- Reviewed terminology.
- Drew attention to tables and diagrams in textbooks.
- Referenced pre-readings and related online resources.
- Identified procedural steps and rationale as fundamental for learning.
- Demonstrated the clinical skill and coached student practice. | *My instruction.* Preparation for each simulation was consistent: review lab outline and course objectives, read assigned textbook content, review related course videos, draft a lesson plan with teacher demonstration followed by student practice, and gather additional resources (e.g., med cups). This was my first time teaching a simulation course. Instruction closely followed the prescribed outline. I wondered how necessary it was to review assigned textbook content if students had done so in their preparation. 
*Student response.* When I asked students about their preparation, some reported they had read; others had reviewed. From questions asked it seemed that some students were less familiar with readings. Others demonstrated difficulty locating procedural steps and accompanying rationale in their textbooks. The varying number of “rights” presented as desired outcomes of safe medication practices in different resources (i.e., right client, right medication, right dose, right route, right time), seemed to confuse instead of clarifying (CS150212). | • Reevaluate lesson content and management of instructional time. 
• Clarify number of rights with course coordinator to promote consistent instruction across courses. 
• Create skill stations for preparing and administering oral medications. 
• Consider integrating use of a medication cart in simulation. 
• I thought about how introduction to medication administration could be taught differently using case scenarios or role playing and having more time for practicing (CS150212). |
| Strategy 2
Facilitate discussions and implement learning tasks that provide evidence of students’ current understandings.
(Instructor)
- Provided equipment (e.g., medication cups, oral syringes) to increase familiarity. 
- Incorporated Math Clinical Skills Workbook content as an additional resource. | *My instruction.* There is limited time to provide a solid foundation of content and opportunities for students to practice performing safe administration of oral medications in a clinical setting within a three-hour lab. I did not feel students got the full grasp of oral medication administration; they got an overview. An overview is neither sufficient nor adequate preparation for administering medications. Although course materials, multiple texts, and online instructional resources were available, students’ actual preparation for this lab was unknown. Exploring students’ knowledge and understanding of medication safety might be a good post-conference focus. My attempt to integrate an online video (College of Nurses’ self-regulated learning) to model accessing course resources and to | • Consider revision of outline to build a solid foundation for medication administration in the first simulation. 
• Purchase a clinical skill and medication textbook to prepare for calculation questions. 
• Discuss concerns about students’ calculation difficulties with coordinator. 
• Consider developing a medication administration scenario using a manikin, medication, a physician |
- Accessed and displayed content from course websites to clarify the rights of medication administration.
- Asked questions to determine and promote understanding.
- Integrated examples from my clinical practice in discussions.
- Developed simple orders with familiar antipyretic medications to practice dose calculations.
- Explicitly presented the procedural steps for performing the clinical skill before student practiced in pairs at prearranged bedside skill stations situated around the perimeter of our lab.
- Reviewed a medication test assigned and completed before and separate from the lab.

<table>
<thead>
<tr>
<th>Strategy 3</th>
<th>My instruction. Calculations were minimally practiced on paper. Most calculations were in the med calculation test. It was challenging to assess individual student’s understanding of the calculations and hence to give constructive, specific feedback. To what extent was my preparation for this lab adequate? To what extent was students’ preparation adequate for the lab and adequate for safe administration in practicum? I asked myself what factors in the preparation and administration of medications require attention for safe administration of all meds for clients. What do faculty say? What do clinical teachers say? What do students say? (CS150212)</th>
<th>Consider developing simulation scenarios for administering oral medications aligned with course textbook recommendations for reducing medication errors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide feedback most appropriate for moving learning forward; modify approaches and resources for learning. (Instructor)</td>
<td>Student response. Not all students purchased the drug book or math clinical skills books. Students seemed to have more familiarity with textbook content related to medication administration than textbook content in the previous lab on infection control. Students engaged in examining blister packs, suspension, a pill splitter, and syringes (CS150212).</td>
<td>Consider how soliciting feedback from instructors has potential for realigning learning objectives across the simulation course curriculum. For example, content was so full that time for assessing students’ understanding (12+2 students because one facilitator was</td>
</tr>
<tr>
<td>- Established pairs and groups of students to practice the new skill.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
feedback during calculations and during practice of skill on the basis of my observation of the student’s interpersonal communication and clinical skill performance.

- Redirected students to the procedural steps and accompanying rationale outlined in their textbooks and recommended using this as a resource when practicing.

<table>
<thead>
<tr>
<th>Strategy 4</th>
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<tbody>
<tr>
<td><strong>My instruction.</strong> As I provided assistance to students as they calculated the medication dose, two students were offering assistance to peers who requested support. I encouraged peer support. <strong>Student response.</strong> One student offered additional help to a student who acknowledged the medication calculation was difficult. Student experiences of medication calculation varied. The simulation lab seemed to be a safe environment for some students to identify gaps and for others to offer assistance. Two students coached peers individually. One of these students used the cross multiplication method (my prevalent practice), and the second student (ex-medic with medication experience) worked 1:1 with another student who accepted the offer of help outside lab hours.</td>
<td>My instruction. Oral feedback and written comments from students at the end of this lab indicated the need for further understanding and explanation and acknowledged the benefit of feedback from both peers and instructor. Approaching the end of each session, I invited questions specific to the new clinical skill and the simulation course. Before exiting each week, students were required to rate and comment on the lab experience in an evaluation document provided by the course coordinator. (CS150212) <strong>Student response.</strong> Student who verbalized her difficulty with sick) was “incomplete” from my perspective (CS150212).</td>
<td><strong>Review students’ written feedback on simulation learning to identify opportunities for improvement.</strong> <strong>I know how students are learning about medication in this program and wonder how my practicum students at a different site are learning the same information.</strong> CS150212 <strong>Consider questioning my practicum students to support scaffolding their knowledge and practice of medication administration.</strong></td>
</tr>
</tbody>
</table>
| **Strategy 5** | **Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources. (Student)**  
- Commended two students whom I observed coaching peers in medication calculation.  
- Encouraged students to work independently and then with a peer to compare results of calculations.  
- Provided feedback on observed performance as students practiced.  
- Encouraged working together to learn medication calculations. | **My instruction.** Oral feedback and written comments from students at the end of this lab indicated the need for further understanding and explanation and acknowledged the benefit of feedback from both peers and instructor. Approaching the end of each session, I invited questions specific to the new clinical skill and the simulation course. Before exiting each week, students were required to rate and comment on the lab experience in an evaluation document provided by the course coordinator. (CS150212) **Student response.** Student who verbalized her difficulty with sick) was “incomplete” from my perspective (CS150212). | **Implement students’ self-assessment of their preparation to safely perform medication administration in the clinical placement.** |
calculations accepted responsibility for learning by accepting a peer’s offer of assistance. (CS150212)

*Note.* The day, month, and year of the class were indicated with a numerical sequence following the two letters used for context. For example, CS250112 represents a journal reflection on a clinical simulation lab conducted on January 25, 2012.
Insights into Self-Study

Self-study, a work-based approach to CPL, enabled me to acquire new understandings about formative assessment strategies that have been found by others to promote student learning (Black & Wiliam, 1998b, 2009; Wiliam 2011) and to monitor my practical application of these strategies in nursing education. Because the curriculum structures (e.g., course outline, required clinical evaluations) were already in place at the time I started this project, I adapted my implementation of the five strategies to these curriculum-mandated expectations. The value of the self-study approach was that it helped me to interpret the complexity of the content to be taught, align the formative assessment strategies to that content, document my efforts at implementing the formative assessment strategies, and then monitor their effectiveness for promoting student learning. As I analyzed this documentation, the following insights around the practice of formative assessment emerged.

My Professional Learning about Formative Assessment

As a clinical instructor, my responsibility was to facilitate discussions and implement learning tasks that would provide evidence of student learning while making sure students received feedback that could move their learning forward. In an effort to support students’ regulation of their own learning, I created conditions for my students to ask questions, self-monitor their performance, seek out appropriate feedback and resources to move their learning forward, and take on the role of “learning guide” for peers. I adopted a formative assessment framework to focus and guide my instructional decision-making and implemented a self-study approach to systematically document and examine reflections on my instructional practice. Together these facilitated my CPL about formative assessment and supported my efforts to become a more competent clinical instructor.
Formative assessment strategy 1: Understand, discuss and clarify. I had to implement this strategy for all of the instruction to enable my students and I to understand, discuss, and clarify learning intentions and criteria for success. Reaching a common understanding of the learning outcomes, one shared by my students and myself, established a foundation for learning. Course manuals, clinical expectations, and clinical skill evaluations supported this common understanding.

Formative assessment strategy 2: Initiate discussions and implement tasks to elicit evidence of learning. It was easier to plan and implement discussions and learning tasks that elicited evidence of learning in lab instruction than in practicum instruction. In learning tasks such as brushing a patient’s teeth, I created opportunities for students to pair up to practice brushing each other’s teeth to heighten their awareness of how teeth brushing might be experienced by a patient. I set up skill stations in the lab for students to practice giving a bed bath to a peer to prepare them for providing this care to a patient requiring assistance in clinical practicum. In practicum, discussions were teaching-in-the-moment opportunities to explicitly connect theory to practice, often in response to an observation (e.g., a patient choking in the dining room, or feedback from a patient on student performance).

Formative assessment strategy 3: Provide feedback to move learning forward. Essential pieces of formative feedback in the lab come from the instructor as well as from a student’s peers and from the student’s own self-analysis. Feedback in the practicum setting may also come from patients, their families, or other health care professionals. Instructor feedback in the form of questioning (e.g., What did you think? How did you feel? Why did that work/not work? What might you try next time?) prompted students to think beyond solely answering the question directly. In analyzing my own feedback strategies, I noted that I applauded what I saw
and heard performed correctly as I circulated among students. This coaching was intended to lessen nervousness, build confidence, and promote learning.

**Formative assessment strategy 4: Activate learners as instructional resources for one another.** One way I activated peer learning in the lab was to have students take on the role of learning guide. In some cases I was able to encourage students to draw upon their previous experiences (e.g., as personal support workers) to demonstrate or describe the learning in a different way. In addition, students learned to use a procedural checklist associated with each skill to check their own performance and to observe and provide direct feedback to their peers about their performances.

In practicum, it is not appropriate for students to observe each other using tools like a checklist. At the end of each practicum day, I set up post-conferences where our clinical group of students would gather around a table to report on their clinical experiences of that day. This created opportunities for students to discuss what they observed, to consider alternative ways to perform the skills, and to discuss how they conducted themselves as novice nurses.

**Formative assessment strategy 5: Self-monitor performance and seek out appropriate feedback.** For formative assessment to be effective, students must feel safe that any instructor, student peer, or self-appraisal of their performance will not ultimately cost them in terms of their grade. I had students submit written reflections on their beginning practice, solicit information and feedback appropriate to their learning needs, access additional resources to guide them in practicing clinical skills, and identify a peer to support their learning. Students used the performance skill checklists at each skill station and reported that these provided concise information on what was “need to know and the must know” (CS070314). Although this was neither planned nor anticipated, some students took these checklists home. All students took
the syringe and needle kits and dressing trays from the lab for additional practice. Providing students with a skill kit for additional practice outside of the lab facilitated student skill development. I observed students’ increased competence during the evaluations of intramuscular injections (CS140312). My observation of students’ increased familiarity with the procedural steps before evaluation of these skills suggests that the students took ownership of their learning and used these dedicated clinical skill kits to practice outside of the simulation lab (CS290212).

Studying my implementation of formative assessment required systematic reflection and documentation of these reflections both before and following each instruction. Before each instruction, I planned activities and discussions to optimize opportunities for formative assessment. Some activities incorporated multiple strategies. For example, introducing a procedural checklist at each skill station provided students with a tool for monitoring both their learning and the learning of peers. Using the sterile dressing performance evaluation document to support students’ learning to change a sterile dressing attended to all five strategies—understanding success criteria, eliciting evidence of learning, soliciting feedback from a peer or oneself, being an instructional resource for one another in pair or group efforts, and activating students as owners of their own learning. Then, to provide rich descriptions of the formative assessment, I reflected on my practice and students’ response to my instruction and documented these thoughts in my reflection journal.

**Activating Assessment Strategies Differently for Learning Different Skills**

My decisions to implement different formative assessment strategies for different activities and learning tasks were anchored by my documented reflections about how effective each strategy was in engaging student interest and participation. My decisions were also influenced by the complexity of the clinical skill and student preparedness for learning. When
teaching complex tasks, such as administering medication, I attended to all five formative assessment strategies during my instruction. In the first of three labs dedicated to medication, I explained for my students the criteria for successfully administering all types of medication and established a foundational knowledge base. I then focused on the safe administration of oral medications in particular. In subsequent medication labs, although I reviewed the overall expectations, I gave greater attention to success criteria specific to the routes of administration assigned to those labs. The complexity of medication administration required that I implement multiple strategies for different students learning different components of these skills at different times. This occurred in the lab and also in practicum when students were researching medication records and the medical conditions of their patient in preparation for administering medications.

Learning to make a bed was simple. Students had prior knowledge of bed making and for most students the new feature was learning to make mitered corners. My instruction and discussion focused on this technique, infection control, and patient safety. After I demonstrated how to make a bed with mitered corners, students practiced in pairs. Students were able to monitor their own performance and limited instructor feedback was required. I observed students coaching each other and commenting on the end product, an open or closed hospital bed with mitered corners.

**Student preparation for learning clinical skills.** The course outline listed pre-readings and online videos associated with each clinical skill lab. The outline did not state completion of these was *recommended* or *required*. I was often uncertain about how much, if any, pre-reading my lab students had done in preparation for the labs. Some students asked questions that were answered in the recommended readings. Was this a matter of the students not having done the reading or not understanding what they had read? Other students had difficulty finding the
procedural skill lists in the textbook (CS150212). When I asked questions to seek evidence of student understanding during instruction, it was the same 4 out of 12 students who volunteered responses to most of my questions (CS080212). I decided to review more of the recommended textbook readings during the instructional portion of the labs than I had originally planned because I was uncertain about the students’ baseline of knowledge. In a three-hour lab, the fact that I had to pay greater attention to discussing and clarifying learning intentions and ensuring that the students understood the success criteria meant that there was less time for the other strategies such as implementing learning tasks, giving feedback, and promoting student-initiated monitoring of self and peers. When there was an obvious need to review the performance expectations and the ideas underpinning these expectations more thoroughly, there was less time for students to practice the skill. I wondered how beneficial my decision to commit greater attention and time to students’ preparation for learning was (CS080214). I wondered whether some students might read less in preparation for a lab because they anticipated that I would review the material during the session. Thinking about this later, I came to the conclusion that as the instructor I should have discussed with the students my expectations for their preparation and also explicitly stated why we were reviewing more and practicing less. Although my lab students did not participate in a lab pre-test I had anticipated that students would read in advance to be ready to practice in the lab.

The expectations for pre-class reading at the collaborative program site attended by my practicum students were significantly different. In this setting nursing students had to achieve 70% success on a pretest based on the weekly readings to participate in the clinical skill lab. One of my practicum students reported that he blocked two hours for reading on the morning of each lab to ensure that he could participate in these skill labs (CP160312). He reported that this
learning strategy, dedicating time to study in advance of each lab, facilitated his learning. He was ready for lab. Effective for one student at one site, this strategy might have been effective for learning if it had been implemented at other sites and it might have given students more hands-on time learning skills.

Activating Assessment Strategies in Different Clinical Contexts

The example of different levels of student preparation for learning described above also demonstrates how strategies for formative assessment are likely to vary on the basis of opportunities and constraints inherent in the different contexts for learning. For this reason it was important that I remain sensitive to the advantages and constraints of the two different contexts where I was working and not assume that formative assessment practices that were effective in the clinical lab would necessarily be effective in the practicum.

Clinical lab. The ratio of students to instructor in the lab was 12 to 1. Weekly instruction of clinical skills occurred in three-hour sessions over one semester. In my instruction I began with a review of the focus skill, related the skill to the curricular content in the textbook, provided one or more demonstrations of the skill, and then had students work in pairs or small groups so that I could coach their practice. Because I had control over the instructional environment, I was able to orchestrate when and how formative assessment could occur. I was able to build into each lab opportunities for self-assessment, peer assessment, and instructor assessment.

Clinical practicum. The ratio of students to instructor was 6 to 1. Each clinical day was eight hours long and was scheduled in one health care setting. I used the final hour of the day for a post-conference meeting with all of my students. During each of seven practicum days, nursing students performed clinical skills while attending to actual patients. As the instructor navigating
a clinical site with students, I focused on creating access to appropriate learning opportunities (e.g., collaborating with nursing staff to determine patient/student assignments). It was important for me to consider the complexity of care that would be required in each assignment and to be certain that the student had a level of preparedness that would allow for learning without jeopardizing the well-being of the patient. This readiness was especially important when the task was the administration of medication. After each student had successfully prepared and administered oral medications to their patient under my supervision, I encouraged the student to identify opportunities for administering medications by other routes. While I facilitated these additional experiences, my expectation was that students would take the initiative to adequately prepare for these opportunities and identify when they felt ready. I was the seeker, intentionally and continuously inquiring about or identifying opportunities for students to observe (e.g., urinary catheter insertions) and to practice learned clinical skills (e.g., changing sterile dressings). Formative assessment strategies that I could initiate were confined largely to verbal feedback on their performance and discussions with individuals and within the clinical group about the variety of expected performances. In this setting, however, students did receive additional feedback, most often informal and sometimes unsolicited, from the patients, families, and clinical staff. This additional feedback was important for me as the instructor as it provided further evidence of the performance of my students and ways to fill any gaps in learning. This was important and meaningful for students who interpreted practicum as an opportunity to perform new skills and to provide real nursing care. I encouraged others to provide input on student performance by introducing myself as the clinical instructor to initiate conversations. Students often heard or were invited into and contributed to these conversations. Appraisal of student performance emerged from various sources.
Self-Study as My Approach for Continuous Professional Learning

Self-study offered a systematic approach for pursuing my professional learning goal; namely, to better understand and improve my practice of formative assessment in clinical nursing education. I embraced the opportunity to become a more competent clinical instructor and chose self-study as the most suitable method for tracking and monitoring my pedagogical decisions and their consequences for my students.

Reflection on practice, systematic documentation of reflections in a dedicated journal, and analysis of data are the essential instruments of self-study (Hamilton, Pinnegar, Russell, Loughran & LaBoskey, 1998; Loughran, 2005). These actions are embedded in iterative cycles of planning, acting, reflecting, and decision-making. In preparation for engaging in this method of practitioner inquiry, I reviewed the self-study literature pertaining to classroom teacher practices (Samaras & Freese, 2006; Hutchinson, 2006) and developed a plan for studying my own professional learning interest in formative assessment. This plan included finding ways to integrate into nursing education the five assessment strategies adapted from the research of Black & Wiliam (2009). I selected these strategies because there was both theoretical and empirical evidence to support the authors’ claim that, as a set, they promoted student learning and achievement while triggering student engagement in their own learning processes.

When I began work in both the lab and practicum settings, I initiated my reflective journal. I used this journal to document my ideas and feelings around what I had experienced and the responses I had observed in my students (Schön, 1983). These reflections documented learning as it occurred in the space between my students and myself. I asked myself what had worked and what had not worked and speculated on why this was the case. I revisited the formative assessment framework (Black & Wiliam, 2009) and reconsidered its meaning in light
of what my students and I had experienced. These reflections formed the data of my self-study. By carefully analyzing these data I was able to make data-informed decisions about what would I do differently next time.

It was critical to construct these reflections as soon as possible after each instructional event so that I could create detailed, rich descriptions of my plans, assumptions, actions, and student responses as well as more elaborate considerations of how and why the teaching and learning had unfolded as it had. Each sequence of plan, act, and reflect contributed to decisions about next steps. As a set, these have given me broader insights into my efforts at becoming a better instructor.

Assessing my Professional Growth

I have argued that self-study was the optimal way for me to scrutinize, adapt, and subsequently strengthen my instructional practice. In reflecting on the process as a whole, I have identified specific changes in my understandings and practices of formative assessment that will now serve as the baseline for my pedagogy. These are summarized below.

- I effectively implemented five formative assessment strategies identified by Black and Wiliam (2009) and others (Wiliam & Thompson, 2008; Wiliam, 2011) in nursing education in different clinical contexts. The explicit nature of each strategy together with the practical descriptions of examples-in-action that emerged in this self-study support(ed) their implementation. Moving forward I will embed these strategies as I develop additional activities and learning tasks and continue to monitor and reflect on my students’ responses to formative assessment.

- I came to understand that my interpretation of the learning objectives for a given instructional session may differ from students’ interpretations. Breaking the learning
objectives down into specific criteria may make these more transparent for both instructors and students. I realize that it is necessary and important to invest time in discussions with students at the beginning of each course and throughout each course to achieve a common understanding of the objectives and to help students understand where they are in their progress towards these goals.

- In my practice I now pay greater attention to the language that I use and to the way in which course outlines state the expectations of students for preparing for learning. I learned that when I explicitly state the expectations for student preparation, participation, and performance the responsibilities for learning are shifted to the students, promoting students’ regulation of their own learning.

- I have heightened awareness of my responsibility to monitor the participation and performance of each student, on each clinical date, in each clinical context. I know that my additional attention to students in difficulty necessarily lessens the amount of time I can spend with other students. In these circumstances, I schedule a time to check in with each student to observe their performance, to provide additional resources, to create new learning opportunities, and to address any concerns. Organizing these informal meetings after morning report, before or after our scheduled breaks, or before our end-of-day post-conference optimizes opportunities to provide formative feedback with the intention to scaffold performance and build students’ confidence.

- In planning and implementation, I have a responsibility to develop and to operationalize activities that enable students to demonstrate their learning to themselves, their peers, and their instructor. As clinical instructor, I have a responsibility to create a learning environment where students feel safe to ask questions, have opportunities to self-monitor,
and receive and give feedback. Giving and receiving feedback is different in lab and practicum contexts.

- Context matters. I learned that in building an effective pedagogy, the context for teaching and learning matters as much for instructors as it does for students. When teaching in the clinical lab, I was in close proximity to other instructors and the course coordinator. This provided opportunities for discussion and for giving and receiving feedback for my professional learning. In the practicum, instructors are often isolated within one clinical setting and may have limited contact with other instructors. The feedback that drives professional learning in this context comes primarily from the students and from the instructor’s reflections. Self-study not only promotes systematic reflection but also requires that the learning that comes from these reflections becomes explicit and therefore available when decisions about the next steps in teaching and learning are to be made.

**Promoting a Professional Learning Orientation in Students**

By entrenching formative assessment strategies in the simulation and practicum curriculum, I discovered and documented evidence that students were making decisions about how to advance their learning and improve their performance. These are characteristics of self-regulated learning. Requiring students to compare their performance to a standard, make decisions about what is required next, and reflect on their own performance introduces students to elements of professional practice in ways that can be monitored and supported by the clinical instructor.

**Self-Study as an Approach to Investigate Other Professional Learning Interests**

One appeal of implementing self-study as an approach to professional learning was the
growing evidence that documenting my efforts could provide insights not only for me but also for others interested in improving their own professional practice (Alderton, 2009; Fransson and Holmberg, 2012; Goodnough, 2006; Samaras, 2013 Samaras & Freese, 2006; Minott, 2010). Having explored, in depth, the use and contributions of self-study for my own professional learning, I was then able to consider how other clinical instructors in nursing education might also use and benefit from this form of professional learning.

Table 4 represents an initial effort to construct a general guide to a self-study approach to professional learning in nursing education. I invite other clinical instructors who are interested in self-study as a way to investigate their professional learning interests to try the guide out, add details, or otherwise adapt it to further the quality of their own self-study experiences. The headings in Table 4 identify the phases of self-study that made my professional learning both continuous and iterative. Each column contains general descriptions of the actions and activities related to formative assessment that I used to implement my self-study approach. I hope this guide will help others to make their self-study activities explicit and that it will encourage clinical instructors to join in a broader discussion around the use and value of self-study.
Table 4
A Guide to Using Self-Study to Support the Professional Learning of Clinical Instructors: A Formative Assessment Example

<table>
<thead>
<tr>
<th>Provoking ideas for addressing my professional learning goal</th>
<th>Describing the implementation of goal-directed professional practice</th>
<th>Reflecting on the implementation and consequences of practice</th>
<th>Making decisions around the next steps (examples are provided from this study)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider the instructional content, readings, assignments, and learning objectives for each scheduled learning experience.</td>
<td>Identify curriculum processes and structures that support each strategy.</td>
<td>Document responses of students to the five assessment strategies in clinical learning experiences.</td>
<td>In addition to initial discussions of course learning objectives and success criteria, review desired outcomes before clinical performance evaluations.</td>
</tr>
<tr>
<td>Consider different strategies and identify actions for integrating these in ways to promote student-regulated learning.</td>
<td>Create opportunities for students to monitor own and others’ performance.</td>
<td>Consider the adequacy of my preparation for teaching.</td>
<td>Identify additional resources to support my learning about instruction and formative assessment (e.g., review new literature on formative assessment in nursing education and self-study; engage a mentor or critical friend when possible).</td>
</tr>
<tr>
<td>Develop lesson plans with a combination of instructor-led, small group, and individual activities.</td>
<td>Ask questions during instruction to assess student understanding.</td>
<td>Reformat data from the reflective journal into an electronic format.</td>
<td>Implement skill checklists or student use of clinical skill performance evaluation forms as guides for practicing skills and for self and peer assessment at skill stations.</td>
</tr>
<tr>
<td>Plan and execute discussions or tasks aligned with course learning objectives.</td>
<td>Observe students’ responses to formative assessment activities.</td>
<td>Code data by clinical context and calendar date to view data by strategy and date.</td>
<td>Make explicit the value of clinical resources, course materials, and peers for supporting student learning.</td>
</tr>
<tr>
<td>Observe students’ responses to my efforts to implement the formative assessment strategies.</td>
<td>Assign roles in a simulation scenario requiring students to take the role of client, family, nurse, and observers.</td>
<td>Compare use and effectiveness of formative strategies for learning specific skills and in specific contexts.</td>
<td>Consider appropriateness of engaging in discussion or</td>
</tr>
<tr>
<td>Review student feedback following each simulation learning experience.</td>
<td>Facilitate debriefing and require feedback from all participants.</td>
<td>Select significant instructor/student interactions and consider what worked, what did not work, and why.</td>
<td></td>
</tr>
<tr>
<td>Systematically document my efforts to integrate the five assessment strategies in a reflection journal.</td>
<td>Facilitate around-the-table sharing of learning experiences in post-conference to facilitate planning of new learning opportunities.</td>
<td>Document emerging ideas about the meaning of these reflections.</td>
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<tr>
<td></td>
<td>Create additional opportunities to practice clinical skills before performing in practicum and</td>
<td>Return to data to confirm that meanings being constructed are</td>
<td></td>
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<tr>
<td>structure ways for students to receive feedback on performance. Document my observations of students’ responses to my instructional practices in a dedicated journal.</td>
<td>supported by evidence.</td>
<td>redirecting students to their course materials when responding to student questions. Review the lesson plan after each lab experience. Evaluate effectiveness. Document my emerging ideas about integrating and implementing the five strategies. Review journal reflections to generate new thinking about current experiences. Review patterns of decision-making to confirm that I am integrating new learning. Communicate and collaborate with course and clinical coordinators as necessary to 1) seek guidance for concerns about student learning (e.g., develop a learning plan) and 2) to discuss the introduction of new resources (e.g., clinical skill or math skills textbook).</td>
<td></td>
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</table>
Conclusions

The overall purpose of this inquiry was to explore the use and contributions of self-study. Self-study presented me with a unique opportunity to systematically and critically study my instructional practice as a method of CPL. Examining the practice of formative assessment and the implications of learning about formative assessment facilitated my ability to clarify these processes, to describe what I had seen and considered, to interpret my experiences and those of my students, to make meaning of my attempts to improve teaching and learning, and to provide other clinical instructors with thick, rich descriptions and defensible insights appropriate for the transferability of CPL, self-study, and the practice of embedding formative assessment in nursing education.

Engaging in a self-study approach for my CPL revealed the empowering nature of self-study for me. It created a habit of inquiry around my practice. Self-study allowed me to make judgments about which strategies to emphasize for learning each clinical skill. It prompted me to make changes in my instructional practices. The iterative cycle of planning, acting, reflecting, and making decisions supported these efforts.

As a conscientious member of the nursing profession, I continue to engage in professional learning. From this episode of self-study new questions around formative assessment emerged to stimulate further learning: 1) How is my experience as an instructor using embedded formative assessment similar to or different from the formative assessment practices of other clinical teachers and how might their practices inform my understandings and practices? 2) To what extent are the formative assessment experiences of students in this study similar to or different from the experiences of other nursing students? What do students deem important? My next step, in keeping with the ethos of CPL, is to reach out to other
clinical instructors and their nursing students to learn about their experiences of formative assessment in nursing education.
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Chapter 5: Examining Clinical Instructor and Nursing Student Understandings of Formative Assessment

There is much for a clinician to learn to be an effective instructor (Cant & Cooper 2011; Cederbaum & Klusaritz, 2009; Pratt, Harris, & Collins, 2009). Nursing instructors must introduce the professional knowledge and skills of nursing to students in ways that reflect sound pedagogy. They must undertake systematic and continuous professional learning (Kyrkjebo & Hanestad, 2003) about both the practice of nursing in different clinical contexts and about how to effectively teach a group of students in these contexts. The role of clinical instructor is complex (Davidson & Rourke, 2012), yet there is a scarcity of literature on programs for educating and mentoring clinical instructors in teaching scholarship (Slimmer, 2012). Given my unique situation as a graduate student, nurse, teacher, and clinical nursing instructor, my goal was to systematically examine my practice for becoming a better instructor and then to disseminate both what and how I learned with other laboratory and clinical instructors and with curriculum developers. The altruistic objective was to contribute to teaching scholarship in the profession of nursing.

In response to the challenge of becoming a more effective instructor at the same time as I was introducing nursing students to clinical practice, I chose to steer my professional learning in the direction of formative assessment. In a previous study I learned about the practice of self-study as an approach to continuous professional learning (see Chapter 4). In teacher education, self-study is recognized as a contributor to improving teaching practices. This approach to professional learning resonated with me because of parallels between improving teacher practices in classrooms and improving instructional practices in clinical nursing contexts. I used this method of inquiry to examine my translation and implementation of Black and Wiliam’s
(2009) formative assessment strategies. My learning involved finding effective ways to integrate their five recommended strategies into my instructional practice. Self-study (Bullough & Pinnegar, 2001) proved to be an effective way for me to examine educational theory, particularly the theory of formative assessment (Black & Wiliam, 2009), and apply it to clinical nursing education.

A scheduled practicum and a clinical skills simulation lab provided the context and a nursing curriculum provided the structure that would support my learning about formative assessment. I was challenged to learn how to continuously clarify course learning objectives and the evaluation criteria that would be used to judge student achievement. I planned opportunities for questioning to advance my students’ thinking and focused on providing timely, constructive feedback on students’ performance. In the lab I designed clinical skill stations and introduced procedural checklists that enabled students to work more independently of me. The opportunities for self and peer assessment of performance provided an additional form of feedback about my teaching and students’ learning. In the practicum I worked with staff and students to select client assignments that required students to perform the skills they most needed to practice. Students were then responsible for preparing themselves for these assignments. I then formalized daily reviews of performance. During these group sessions students debriefed their work with their peers and me. I encouraged them to include in these discussions any feedback they had received from other nurses and the clients they were serving.

Throughout the process, the self-study framework required that I systematically document, describe, and reflect on my practices and how I saw my students responding to these practices. Reflection on practice is recognized as an essential process for enhancing pedagogy (Yorke, 2003). The reflective process required that I analyze these descriptions, interpreting how
well my practices reflected the strategies advocated by Black & Wiliam (2009) and making inferences about the effects of my efforts on student learning. These steps of self-study allowed me to make new meaning of my efforts and to plan my next steps for using formative assessment to improve teaching and learning. From my notes, I was able to document the benefits of this disciplined approach to examining my practice. I also had concrete evidence that in both the lab and practicum my students benefitted from my learning (see Chapter 4). As I reflected on my experiences, however, new questions emerged. How do colleagues who are instructors in clinical nursing use formative assessment, if at all? To what extent do students recognize and value these strategies?

The current study tells the story of how I attempted to use formal qualitative research methods to examine the usefulness and the limitations of my initial efforts to practice formative assessment. I begin by reviewing the educational theory underpinning this study and then describe the purpose and value of using a qualitative approach to the research. Specifically, I outline the procedures I used to create both instructor and student open-ended surveys as well as instructor interview and student focus-group protocols. I then map out the efforts I made to collect data. Finally, I present my findings and discuss the resulting insights.

My primary intention was to use the findings of this study to inform my future practice. I anticipated that instructor results would allow me to compare with my own practice the activities and practices of formative assessment used by my colleagues, and that students’ responses would provide insights into how to engage them meaningfully in the five strategies recommended by Black and Wiliam (2009). The decision to move from the descriptive and reflective activities of self-study into a more elaborate qualitative research design reflected the desire I had to capture, more generally, the value each group placed on formative assessment and begin to unpack
further how the context for learning might shape decisions about how to use formative assessment. My story reveals some of the challenges I experienced in using conventional survey research methods in support of self-study and continuous professional learning.

**Background Literature**

To effectively design qualitative research instruments and to subsequently interpret the quality of assessment thinking embedded in instructor and student responses, I had to have confidence in my understanding of the most current thinking about formative assessment. Specifically, I reviewed the empirical claims made about the relationship between formative assessment and student learning. I also examined the assumptions and practices that led to the theory of formative assessment offered by Black and Wiliam (2009). I selected their theory and strategies they suggest for practice because they have been widely adopted in Canadian educational systems (Ontario Ministry of Education, 2013; Western and Northern Canadian Protocol for Collaboration in Education, 2006). Although I intentionally aligned my work to five formative assessment strategies, it is important to note that the elements I investigated have connections to and are informed by other research, for example, promoting student autonomy in learning (Black, McCormick, James, & Pedder, 2006) and promoting student self-regulation of learning (Zimmerman & Schunk, 2011).

**Formative Assessment and Student Learning**

The connection between formative assessment and student learning is well established. In 1983, Ramaprasad introduced the benefit of identifying where students are in their learning, where they are supposed to be going, and what teaching and learning need to occur to get students to the desired outcome. He also identified a role of teachers, students, and student peers in tracking the progress of teaching and learning. In 1989, Sadler described learning as the
activities involved in closing the gap between a student’s present state and the state implied by the learning objective. He then argued that being able to identify these two states was an important metacognitive skill for learners to develop.

Black and Wiliam extensively reviewed the literature on formative assessment (1998a, 1998b) and reported that improvement in formative assessment practice, effective teaching, and student self-assessment had a significant impact on promoting student achievement. Additionally, Black and Wiliam (1998a) emphasized that assessment can only be considered formative if it is used to advance learning. They labelled this practice assessment for learning. They reinforced that the student must perceive a gap between a desired goal and their present state and see a need to close this gap. Earl (2003) called attention to the notion of assessment as learning. She described how the student could be an active agent who contributed to and made meaningful connections between assessment and learning. Davies and Herbst (2013) described assessment in the service of learning where students were involved in co-constructing success criteria then collecting and sharing evidence of their learning.

While different researchers interested in the relationship between formative assessment and student learning examined different aspects of the practice, it is clear that their efforts converged on some common features. Black and Wiliam (1998a, 1998b, 2006) and their work with others (e.g., Black, Harrison, Lee, Marshall, & Wiliam, 2004; Black, McCormick, James & Pedder, 2006; and Wiliam & Thompson, 2008) focused attention on teaching and learning strategies. Black, Harrison, Lee, Marshall, and Wiliam (2004) documented the use of five formative assessment activities found to promote student learning in classrooms: (a) sharing success criteria with students, (b) skilled questioning, (c) comment-only marking, (d) peer and self-assessment, and (e) formative use of summative tests. Black and Wiliam (2006) examined
four themes: the relationship of the teacher, learner, and subject discipline; the importance of feedback and teacher-student interaction; the role of the teacher in regulating learning; and the role of students in regulating their own learning. Specific formative assessment activities and teacher-learner relationships were identified as contributors to an effective learning environment.

Wiliam and Thompson (2008) proceeded to analyze and locate these assessment activities, taking into account the role of teacher, student, and peers in learning, and integrating Ramaprasad’s (1983) position of a learner in the process of learning. Integrating formative assessment with learning in this way, Wiliam and Thompson contributed a useful formative assessment framework that placed emphasis on five strategies for promoting student learning. These strategies were congruent with earlier findings in classrooms. Research conducted over 10 years confirms continuing interest in examining the interaction of formative assessment and student learning. Black and Wiliam (2009) undertook to develop a theory of formative assessment in response to calls from other researchers to situate formative assessment within a theory of pedagogy.

Methods

The desire to hear instructors and students describe their efforts and experiences in relation to Wiliam’s (2011) strategies led me to choose methods of inquiry that were qualitative in nature. I designed qualitative survey and interview questions for instructors to see whether they would recognize Wiliam’s framework as one that effectively captured their own practices. I prepared survey and focus group/interview questions for students to learn about students’ assessment experiences and the extent to which they saw assessment contributing to their growth and independence as learners.

This study was approved by research ethics boards at two universities in Ontario.
Research Design

Recruiting participants. I identified my initial cohort of potential participants as the group of clinical instructors and nursing students from three program sites of one collaborative undergraduate nursing program in eastern Ontario. These clinical instructors and their second-year nursing students were engaged in teaching and learning during the winter 2013 semester. I contacted the course coordinators and requested that they discuss my letter of information with their clinical instructors (lab and practicum) and the second-year nursing students. In my letters, one for instructors and one for students, I introduced my doctoral work and described their opportunity to participate in my research about assessment. I attached a letter of information with my contact information, a link to the respective instructor or student survey, and an invitation to participate in a survey and/or an interview (instructors) or focus group (students). Course coordinators accepted responsibility for disseminating recruitment information to potential instructor and student participants.

The second cohort of potential participants consisted of second entry nursing students and their clinical instructors at two universities in Ontario. I initiated recruitment for these participants in late spring 2013 after finding that participation from the initial cohort of instructors and students was low. I revised the recruitment materials and submitted amendments for my research to include a second cohort of participants, and I added an incentive to participate. I used a similar collaborative process to make contact with instructors and students at these sites.

Developing instruments. I anticipated needing four data collection instruments: a qualitative online survey and an interview protocol for instructors, and a qualitative online survey and a focus group protocol for students. All questions were framed using Black and
Wiliam’s (2009) theory of formative assessment and were informed by Wiliam’s (2011) five formative assessment strategies. By designing instruments that would probe the same ideas that had informed my initial self-study, I hoped to compare instructor understandings and practices with my own thinking and documented experiences as a clinical instructor (see Chapter 4). Student data would allow me to examine the relationship between the type and number of assessment practices reported by instructors and students’ perceptions of the frequency and value of formative assessment as described by Wiliam (2011).

To have confidence in the quality of the data I was collecting, I worked with an English/French translator to develop bilingual (English/French) surveys as well as bilingual interview and focus group questions as required by one institution that offered nursing programs in English and French. Respondents to the English surveys provided their answers in English. Respondents to the French surveys provided their answers in French. All responses provided in French were back translated into English so all data could be analyzed together. I also employed the technology provided by FluidSurveys to develop, distribute, and collect data from both online surveys. At the time, FluidSurveys was the technology my university used to support larger scale research. The questions in the surveys were piloted with a sample of registered nurses to evaluate the clarity of the wording of the questions and the extent to which these nurses’ understanding of each question matched my purpose for asking it. Feedback from five nurses indicated that no revisions were necessary.

Table 1 itemizes the questions I asked of clinical instructors around each of the five formative assessment strategies. I was particularly interested in learning about lab and practicum instructors’ experiences with students preparing and administering medications and therefore
intentionally used medication administration as an example with the hope of eliciting medication-specific comments.

Table 1
Instructor Survey Questions

<table>
<thead>
<tr>
<th>Question(s)</th>
<th>Element being investigated</th>
<th>What formative assessment research tells us</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To what extent is clarifying, sharing, and understanding learning intentions and criteria for success important? Why?</td>
<td>Instructors’ notions of connections between the learning intentions and success criteria, and student learning.</td>
<td>Understanding learning intentions and success criteria is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>2 Describe classroom discussions, activities, and learning tasks that elicit evidence of student learning. For example, in students’ learning to prepare and administer oral medications, what works?</td>
<td>Instructor descriptions of discussions, activities, or tasks that produce evidence of learning.</td>
<td>Learning tasks that elicit evidence of learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam 2011).</td>
</tr>
<tr>
<td>3 Describe the type of feedback that moves learning forward. To what extent is assessment for further learning, such as giving feedback, the same or different in the lab setting and in the clinical practicum?</td>
<td>Instructors’ definitions of effective feedback and descriptions of feedback in different contexts.</td>
<td>Feedback is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>4 How do you activate learners as instructional resources for one another? What might this look like?</td>
<td>Instructors’ strategies for facilitating peer support for learning.</td>
<td>Activating learners to promote others’ learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>5 How might you activate learners as owners of their own learning, for example, in learning to prepare and administer an intramuscular injection?</td>
<td>Instructors’ strategies for encouraging students’ accountability for their own learning. Promoting students’ regulation of their own learning (Zimmerman &amp; Schunk, 2011).</td>
<td>Activating learners to become accountable for their own learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>6 To what extent is a teacher’s assessment of students’ learning clinical skills dependent on the skill being learned? How might assessment be different in learning to prepare and administer medication, for example, than it is for learning to assist with feeding?</td>
<td>Differences in assessment related to skill being learned and assessor experience. Identify approaches that promote autonomous learning (Black, McCormick, James, &amp; Pedder, 2006).</td>
<td>The skill of assessment determines the capacity of formative assessment (Yorke, 2003).</td>
</tr>
<tr>
<td>7 Please complete the following. “Assessment that promotes nursing students’ learning…”</td>
<td>Instructor notions of assessment as learning (Earl, 2003) and assessment for learning (Black &amp; Wiliam, 2009). Constructivism and development of knowledge (Brandon &amp; All, 2010).</td>
<td>Formative assessment incorporates assessment as learning (Earl, 2003) and assessment for learning (Black &amp; Wiliam, 2009).</td>
</tr>
</tbody>
</table>

The nursing student survey questions were also informed by the work of Black and Wiliam (2009) in formative theory development and Wiliam’s (2011) practical application of
five formative assessment strategies in the classroom. I hoped to collect descriptive data about student experiences of assessment as learning (Earl, 2003) and assessment for learning (Black & Wiliam, 2009). Table 2 provides the survey questions around formative assessment and learning and their theoretical foundation.

**Table 2**  
**Student Survey Questions**

<table>
<thead>
<tr>
<th>Question(s)</th>
<th>Element being investigated</th>
<th>What formative assessment research tells us</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 From your experiences as a nursing student in the clinical simulation lab or in clinical practicum, please indicate to what extent clarifying, sharing, and understanding learning intentions (objectives) and criteria for success is important. Why?</td>
<td>Students’ notions of connections between learning intentions and success criteria.</td>
<td>Understanding learning intentions and understanding success criteria is one formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>2 Describe classroom discussions, activities, and learning tasks that provide you with evidence of your learning. What do these look like? For example, in learning to prepare and administer oral medications, what was it in the clinical simulation or the practicum that helped you to learn this skill?</td>
<td>Student descriptions of discussions, activities, or tasks that produce evidence of learning, that promote learning.</td>
<td>Learning tasks that elicit evidence of learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011). Assesment as learning (Earl, 2003) pays attention to the role of the student and teacher in the process of learning.</td>
</tr>
<tr>
<td>3 To what extent is assessment that promotes further learning (such as receiving feedback) the same or different in the laboratory setting and in the clinical practicum?</td>
<td>Differentiating between assessment as learning and assessment for learning (feedback) in the simulation lab and in clinical practicum.</td>
<td>Effective feedback is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>4 Describe the type of feedback that moves your learning forward and who you get this from (teacher, peer, self, other).</td>
<td>Student definitions of effective feedback and differences in feedback in different contexts.</td>
<td>Feedback is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>5 What motivates you to support other nursing students’ learning? How might you help other students learn? How might they help you?</td>
<td>Student motivation for facilitating others’ learning.</td>
<td>Activating learners to promote others’ learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>6 How might you take more responsibility for your own learning, for example, in learning to prepare and administer an intramuscular injection?</td>
<td>Student accountability for their own learning.</td>
<td>Activating learners as accountable for their own learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>7 To what extent do you approach learning one clinical skill in the same way as or differently than you approach another clinical skill? For example, do you use different learning strategies when you are learning how to prepare</td>
<td>Student approaches for learning different skills.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009). Assessment for learning</td>
</tr>
</tbody>
</table>
and administer an intramuscular injection than if you are learning to assist with feeding? If so, what, why, and how? supports learning how to learn (Black, McCormick, James, & Pedder, 2006).

Tables 3 and 4 itemize instructor interview questions and nursing focus group questions. In each table, the element being investigated and the conceptual or theoretical underpinning for each question are identified.

Table 3  
**Instructor Interview Questions**

<table>
<thead>
<tr>
<th>Question(s)</th>
<th>Element being investigated</th>
<th>What formative assessment research tells us</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To what extent is clarifying, sharing, and understanding learning intentions and criteria for success important? Why?</td>
<td>Instructors’ notions of learning objectives and success criteria.</td>
<td>Learner knowing where they are and where they are going facilitates progression in learning (Ramaprasad, 1983).</td>
</tr>
<tr>
<td>2 Describe classroom discussions, activities, and learning tasks that elicit evidence of learning. For example, in students’ learning to prepare and administer oral medications, what works?</td>
<td>Instructors’ efforts to create opportunities for student learning and to collect evidence of learning.</td>
<td>Learning tasks that elicit evidence of learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011). Assessment as learning (Earl, 2003) pays attention to the role of the student and teacher in the process of learning. Learners create understanding and construct competency in a structured problem-based learning environment (Hendry, Frommer, &amp; Walker, 1999).</td>
</tr>
<tr>
<td>3 Describe the type of feedback that moves learning forward. To what extent is assessment for further learning, such as giving feedback, the same or different in the lab setting and in the clinical practicum?</td>
<td>Instructors’ experiences of operationalizing assessment for learning in different clinical settings.</td>
<td>Teacher feedback is an important element for learning (Black &amp; Wiliam, 2009). Formative feedback promotes student development of self-regulated learning strategies (Clark, 2012).</td>
</tr>
<tr>
<td>4 How do you activate learners as instructional resources for one another? What might this look like?</td>
<td>Instructors’ approaches for operationalizing and monitoring peer assessment and learning.</td>
<td>Teachers’ activation of learners as instruction resources for each other is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>5 How might you activate learners as owners of their own learning, for example, in learning to prepare and administer an intramuscular injection?</td>
<td>Instructors’ notions about students beginning to regulate their own learning.</td>
<td>Formative feedback promotes student development of self-regulated learning strategies.</td>
</tr>
</tbody>
</table>
To what extent is a teacher’s assessment of students’ learning clinical skills dependent on the skill being learned? How might assessment be different for learning to prepare and administer medication than it is for learning to assist with feeding? Differences in approaches to assessment relative to context or content of learning. The skill of assessment determines the capacity of formative assessment (Yorke, 2003).

What conditions appear to facilitate or constrain the use of embedded formative assessment in clinical nursing education? Instructors’ notions about facilitators and constraints from their experiences. The skill of assessment determines the capacity of formative assessment (Yorke, 2003).

### Table 4

**Student Focus Group Questions**

<table>
<thead>
<tr>
<th>Question(s)</th>
<th>Element being investigated</th>
<th>What formative assessment research tells us</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To what extent were you aware of the learning objectives in the clinical simulation and clinical practicum this semester: What was the effect of knowing or not knowing these learning objectives on your success in clinical learning?</td>
<td>Students’ notions of learning objectives and the relationship between learning objectives and success in learning.</td>
<td>Knowing both learning objectives and the success criteria is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>2 Describe classroom discussions, activities, and learning tasks that provide you with opportunities to show or know you have learned. What do these look like? For example, in learning to prepare and administer oral medications, what was it in the clinical simulation or the practicum that helped you learn this skill?</td>
<td>Activities or tasks that provide students with evidence of learning.</td>
<td>Learning tasks that elicit evidence of learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam, 2011).</td>
</tr>
<tr>
<td>3 Consider whether you accomplished any significant learning throughout the clinical simulation and clinical practicum. If so, what was it and how did the learning take place? If not, what were the barriers to learning you experienced?</td>
<td>Student identified facilitators and constraints to learning in simulation or practicum.</td>
<td>Assessment for learning supports learning how to learn (Black, McCormick, James, &amp; Pedder, 2006).</td>
</tr>
<tr>
<td>4 Consider feedback from your teacher or a peer as you are learning something new. What type of feedback helps you understand or learn? To what extent is the nature of the feedback, which helps you learn in the clinical simulation, the same as or different than feedback that helps you learn in the clinical practicum?</td>
<td>Teacher and peer feedback in practicum and in simulation contexts.</td>
<td>Effective feedback from peer or instructor moves learning forward (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>5 Consider differences in how you prepare for clinical practicum and how you prepare for clinical simulation. Are these the same? If so, how do you prepare for each? If not, what did you do differently?</td>
<td>Requirements for preparation for simulation and practicum.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>6 Consider how you prepared for the simulation on making a bed. What did this preparation involve? Did you feel ready for the lab? Why or why not?</td>
<td>Preparation requirements for simulation lab on bed making.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009). Assessment for</td>
</tr>
<tr>
<td>7 Consider how you prepared for the simulation on administering an intramuscular injection. What did this preparation involve? Did you feel ready for the lab? Why or why not?</td>
<td>Requirements to prepare for simulation lab on administering an intramuscular injection.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>8 What does taking more responsibility for your own learning look like, for example, in learning to prepare and administer an intramuscular injection?</td>
<td>Students’ notions of responsibility for learning.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>9 Consider the preparation and administration of medications in simulation and then in clinical. Describe the activities or preparations that helped you become competent in safely preparing and administering medications. Identify any barriers in the learning of this clinical skill.</td>
<td>Student identification of activities or preparations supportive of becoming competent in medication preparation and administration. Student identification of barriers related to learning to prepare and administer medications.</td>
<td>Activating students as owners of their own learning is a formative assessment strategy (Black &amp; Wiliam, 2009).</td>
</tr>
<tr>
<td>10 How might you help other students learn? What motivates you to support other students as they are learning?</td>
<td>Students’ notions about peer support in learning.</td>
<td>Activating learners to promote others’ learning is a formative assessment strategy (Black and Wiliam, 2009; Wiliam 2011).</td>
</tr>
</tbody>
</table>

**Monitoring response rates.** There was almost no response to my initial invitations to participate in the survey and very few requests (n = 5) to participate in interviews or focus groups. This motivated me to initiate additional recruitment efforts. When I spoke with site coordinators, they agreed to redistribute the study information to instructors and to students. I created and electronically distributed information posters about the research to each program site (see Appendix H). I attempted to increase interest by speaking about my research at a professional development day for clinical instructors. I mounted a display and responded to inquiries from instructors and faculty throughout that day.

At the same time it became clear that I would need to tap into the second cohort of participants to collect enough data to answer my questions. This cohort also received (revised) letters of information and invitations to participate. I used the same survey, interview, and focus
groups questions that I had used with the first cohort. Course coordinators at each university agreed to disseminate the revised documents and surveys to these clinical instructors and their students. To make my study more visible, I mounted and staffed a display presenting the research opportunity at one of the nursing schools. I sent a reminder email to the course coordinators. Additionally, I submitted an amendment to the research protocol to add an incentive to participate: a draw for three iPod Shuffles, one at each of the two universities and one at the combined collaborative program sites. Potential nursing student and clinical instructor participants at the five sites are identified in Table 5.

Table 5
Potential Instructor and Student Participants

<table>
<thead>
<tr>
<th></th>
<th>Clinical practicum instructors</th>
<th>Clinical lab instructors</th>
<th>Nursing students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort 1 Site A</td>
<td>17</td>
<td>8</td>
<td>130 English, 84 French</td>
</tr>
<tr>
<td>Cohort 1 Site B</td>
<td>4</td>
<td>4</td>
<td>132</td>
</tr>
<tr>
<td>Cohort 1 Site C</td>
<td>4</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>15</td>
<td>384</td>
</tr>
<tr>
<td>Cohort 2 Site D</td>
<td>Not reported</td>
<td></td>
<td>24 English, 18 French</td>
</tr>
<tr>
<td>Cohort 2 Site E</td>
<td>Reported estimate of 20 instructors</td>
<td></td>
<td>72</td>
</tr>
</tbody>
</table>

Course coordinators did not report the number of clinical practicum and lab instructors for the second entry programs. There were more than 60 potential instructor participants in the two cohorts combined. There were 498 potential nursing student participants in the two cohorts combined. Of these, 102 students attended a nursing program where learning occurred in French.

Data Collection

Table 6 reports the participation of clinical instructors and students in the online surveys and interviews. In the surveys and interviews some instructors provided information on their
experience in both lab and practicum contexts. In the second cohort, site D did not report the number of instructors and site E estimated 20 instructors. Some instructors were in full-time contracts and taught nursing students in labs and in clinical courses in different years of the four-year program. Other instructors were in a clinical practicum contract with one or two groups of second-year nursing students.

Interviews with clinical instructors were conducted on campus at a time convenient for the instructor. I recorded and subsequently transcribed these interviews. In addition, I occasionally made notes to remind myself of particular ideas that I thought might deserve special attention. During the interview I asked questions to clarify my understandings. Nursing students interested in participating in a focus group contacted me to arrange a convenient time to meet on campus. Because it was not possible to coordinate a date for the focus group on which all volunteers could attend, I used the protocol to conduct individual interviews with each nursing student at a time convenient for each of them. These interviews followed the question set I had prepared for the student focus group. All participants had an opportunity to participate in surveys only, interviews (instructors) or focus groups/interviews (students) only, or both activities.

To promote accessibility and encourage participation, I offered two ways to engage in the study. I was not looking to identify whether the same individuals in each group of instructors and students had participated in both the survey and an interview. By asking the same questions in the interviews as in the surveys my objective was to increase my understanding of what survey responses meant.
Table 6
Participation of Clinical Instructors and Nursing Students in Surveys and Interviews

<table>
<thead>
<tr>
<th></th>
<th>Cohort 1</th>
<th>Cohort 2</th>
<th>Total participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical instructor surveys</td>
<td>( n = 1 ) (1 complete)</td>
<td>( n = 10 ) (4 complete, 4 incomplete)</td>
<td>( n = 11 ) (5 complete, 4 incomplete)</td>
</tr>
<tr>
<td>Clinical instructor interviews</td>
<td>( n = 2 )</td>
<td>( n = 0 )</td>
<td>( n = 2 )</td>
</tr>
<tr>
<td>Site A (( n = 1 ))</td>
<td>Site D (( n = 0 ))</td>
<td>Site E (( n = 0 ))</td>
<td></td>
</tr>
<tr>
<td>Site B (( n = 0 ))</td>
<td>Site C (( n = 1 ))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing student surveys</td>
<td>( n = 12 ) (7 complete, 5 incomplete)</td>
<td>( n = 7 ) (5 complete, 2 incomplete)</td>
<td>( n = 19 ) (12 complete, 7 incomplete)</td>
</tr>
<tr>
<td>Nursing student interviews</td>
<td>( n = 3 )</td>
<td>( n = 2 )</td>
<td>( n = 5 )</td>
</tr>
<tr>
<td>Site A (( n = 0 ))</td>
<td>Site D (( n = 0 ))</td>
<td>Site E (( n = 2 ))</td>
<td></td>
</tr>
<tr>
<td>Site B (( n = 1 ))</td>
<td>Site C (( n = 2 ))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Analysis

The most significant feature of the data collection was the very low and disappointing response rate. For this reason, I abandoned my aspirations to report on (a) formative assessment practices that could be attributed to these particular clinical instructors, and (b) the value that second-year students placed on assessment as a contributor to their learning and their professional growth. Instead of considering the similarities and differences across these contexts, I settled on a more modest goal; namely, to describe the common and divergent ideas as these were expressed within the two groups (instructors and students) and reflect on this information as a way to further my own self-study into formative assessment practice.

The Data

Collecting the online survey data through FluidSurveys facilitated the analysis of responses. Five of 11 instructors answered all questions. Seven of 19 students answered survey questions on age, sex, language, and past education only. One student and one instructor completed their respective surveys in French. I employed Google Translate initially to back translate French into English and then checked the accuracy of block text translation with
bilingual colleagues who participated in the initial pilot survey. This resulted in a final set of
survey data from five instructors and 12 students. In the combined cohorts of instructors and
students, two clinical instructors and five nursing students agreed to be interviewed. I used all of
these data to critique and inform my own thinking about formative assessment.

Table 7 shows the way I labelled the sources of the data in this study.

<table>
<thead>
<tr>
<th>I</th>
<th>S</th>
<th>01–12</th>
<th>sur</th>
<th>int</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>Student</td>
<td>Instructor or student participant identification number</td>
<td>Survey</td>
<td>Interview</td>
</tr>
</tbody>
</table>

For example, a quote from the second instructor’s interview would be coded as (I02int), while a
quote from the 12th student survey would be coded as (S12sur).

**Analysis and Interpretations**

I documented descriptions of formative activities, tasks, or strategies employed by the
instructors, looking for similarities with and differences from my own practice. From this
comparison I was able to consider how theoretically robust practices (i.e., those congruent with
Black and Wiliam’s 2009 theory) might be operationalized in my future practice. Data analysis
involved numerous interconnected steps for examining the four sets of data: from the instructor
survey, instructor interviews, nursing student survey, and nursing student interviews (see
Appendix I: Data Analysis Study Two). During data analysis, it was necessary to make sure I
was using the appropriate data (interview or survey responses of instructors or students) for the
interpretations I was making about the presence of the five strategies, and the extent reported
practices were congruent with formative assessment theory. Through iterative analysis I was able
to refine themes, explanations, and interpretations while making sure these were well anchored
by the data.
**Validity.** Validity refers to “the soundness of the inferences made from the results of a data gathering” (Yarbrough, Shulha, Hopson, Carruthers, 2010, p. 293). Feldman (2003) proposes that the validity of inferences in self-study can be increased by clearly identifying what the data are and how they are collected; by explicitly describing how the data are transformed into a representation of the research, by incorporating triangulation, and by considering other ways to represent what has emerged from the data and to then make evident the value of the findings. The triangulation of multiple sources of data and the use of multiple data collection methods contribute to the truth-value of the findings (Jones & Lyons, 2004; McGloin, 2008). In this study I have clearly identified and described the data collected using two different instruments, triangulated survey and interview data, revisited the data set several times to consider alternative themes and patterns, and examined responses of both nursing clinical instructors and nursing students. Most importantly I have restricted the use of the findings. Rather than making inferences about instructor and student thinking and behaviours, I have reviewed the findings only for the contributions they might make to my own thinking and practice.

**Findings, Analyses, and Implications for My Practice**

The responses of instructor and student participants demonstrate the variability of thinking around formative assessment. I first report the themes that emerged from the described experiences of clinical teaching and learning specific to the five formative assessment strategies. I then try to make explicit my own developing insights into the practices and values that can be attributed to each strategy. Where possible, I next indicate my specific plans for how to improve my own use of this strategy. In conducting this study my intention was to improve my practice of clinical instruction by reaching out to instructor colleagues and their students to come to know
their experiences of formative assessment. In doing so, I learned how Black and Wiliam’s (2009) five formative assessment strategies could inform and enhance clinical instruction. I anticipate that the strategies and findings I report in this study will resonate with other instructors and support their clinical instruction. By disseminating the results to others, my goal is to contribute to teaching scholarship in the profession of nursing.

**Clarifying, sharing, and understanding learning intentions and success criteria.**

*Instructors.* There was general agreement among the instructor participants that this strategy was important to student success. Their comments also suggested that they assume they are making a strong effort to use this strategy with their students.

Clarifying, sharing, and understanding learning intentions and criteria is very important in clinical practice. In the beginning of each semester this lays the foundation for the semester in terms of what they need to achieve. If expectations aren’t clear and students don’t understand why they are there, the chances for them to have a successful semester decrease. If everyone is on the same page and things are transparent in terms of what are the goals of the semester, things tend to run smoother as a whole. In terms of testing as well, if things are clarified in the lab setting while practicing the skills, when it comes to testing, there should be no conflicts or students having multiple explanations for skills learned. (I07sur)

One instructor was definitive about the need for this strategy, calling it *extremely important.*

Misinterpretation is easy; communication is difficult therefore clarification is essential to guide the students to learn. Without sharing in clinical and practicum again the student will be unable to change behavior or modify learning experiences to be successful. If the learning intentions are not clearly laid out the student will only be successful if they are good at guessing. (I09sur)

These comments reflect the sentiment of others. Clarifying learning intentions and the success criteria helped instructors and students to share a common understanding of expectations for performance in each clinical environment. “Clarifying helps the student to understand or make some sense of what they are seeing or experiencing so they can put it in a particular framework and link the theory to practice” (I10sur). Discussions by each instructor with their
students served as a “double check that the information received has been understood as expected by the teacher. It is important because both have understood expectations and can work toward the same goals” (I11sur). Two other instructors talked generally about the importance of this strategy, although only one mentioned using a clarification process in preparation for each instructional class.

Outcomes and assessment of outcomes should be driven by the learning expectations. In order for students to work towards successful outcomes they need to understand the expectations or learning objectives. I take time pretty much every day to review the expectations and we talk about each aspect of the course and what success looks like. I also give handouts on the expectations and on how to achieve them so that students can review them at home. The students do a great deal of sharing informally about their progress and assignments and other aspects of learning. (I01sur)

Instructors did not assume that all students read course documents and understood the meaning of *successful performance*. Although learning outcomes were stated in black and white in curriculum documents, instructors suggested the existence of a grey zone. The interchange of terms may contribute to this grey zone. In instructor survey and interview questions, I employed the term *learning intentions*. When restating the formative assessment strategy, instructors used the term *intentions*. In their later descriptive responses, however, instructors spoke of learning expectations, learning objectives, or outcomes. Instructors had a critical role in translating curriculum learning intentions into desirable expectations, objectives, and outcomes. Instructors took on the role of guide to navigate students through this grey zone.

**Students.** Ten of the 17 students who responded to all questions in this study reported that knowing about learning intentions at the beginning of a course was beneficial in giving them a picture of what they would be expected to learn. Only three students made specific claims about the importance of understanding learning intentions and success criteria. One student reported it “increases confidence to know what expectations are” and students have an
increased chance of successful completion of [the] course if learning intentions are clear” (S09sur). Learning intentions were described as providing a “critical core” (S02int) of information that is able to “lead you in the right direction to be able to concentrate your studying on the more important objectives” (S01sur).

More commonly, however, students experienced this strategy primarily as a “general” (S04int, S05int) introduction to course expectations. Consequently, even when learning objectives were reported as clear at the start of the course, they were reported as being “not helpful. They are a formalized process. They are not relevant to the entire [learning process]” (S05int). These students were typically expected to read the intentions and success criteria on their own and consequently it is possible that they “did not pay attention to them, and instead focused on skills and try[ing] to learn.” (S05int). For these students, the course objectives were a guide for showing where they were going; yet they were not able to describe in any detail how these general objectives could support their journey. One student suggested that identifying three specific objectives for each lab would promote better preparation because “I find it hard to determine what aspects of a lecture we should focus on more” (S02sur).

Many students referred to the presence of a clinical manual or their course outline and how these worked as tools to define intentions and success criteria. It is unclear whether instructors recommended this practice. There could be a significant problem attached to the practice of simply stating learning intentions in print. Students reported widely different responses to these. There was mention of the significant amount of time it took to complete all readings identified as necessary preparation for each lab and how it would be difficult to catch up on missed readings (S02int). Most students reported being selective about what they read. One student adopted a process of scanning to decide what to read (S02int). Only one student talked
specifically about how completing the readings could support lab performance (S01int). This student reported that entrance to each lab required success on a pre-test based on the recommended readings. He blocked two hours for reading just before each lab. For this student the pre-test provided incentive for completing the recommended readings, and admission to the lab demonstrated successful preparation. At least one student recognized that the clinical manual and the questions it posed were intended to support learning. However, she also reported being unable to engage in the manual’s learning tasks independently. She was looking for more formal support and direction. “We never did them [the questions]. I tried to do them. There was a guide for basic goals [but] taking it one step further was kind of a challenge” (S03int). This student sought and purchased additional resources that she thought she could use to assess her performance: “I purchased a Home Learning Course and used a video” (S03int).

Students recognized that the success criteria applied in the clinical practicum varied by instructor. One student mentioned the importance or, more accurately, the lack of importance of having explicit success criteria. Her concern was that there was always “some subjectivity” (S04int) involved in measuring learning objectives. Some instructors required students to know patient’s lab results and normal values while others were more “lenient” (S04int). Possibly because success criteria were perceived as vague, students reported that they informally discussed and compared their clinical experiences with each other. This could be a way for students to compare the criteria being applied to their performance. One student expressed appreciation for her instructor’s willingness to show their group a “prototype of a cheat sheet” (S04int) that could help them to organize their clinical work and identify and track success criteria. It is interesting that efforts to make expectations and success criteria explicit were referred to as a cheat sheet.
Together, these data suggested that students are not always certain where or how to concentrate their efforts. This leaves students to adopt strategies such as scanning the lab outline (S02int) and purchasing additional materials (S03int) to support their learning. Students probably see this as problematic because they continue to see their instructors as having the responsibility for guiding them through all aspects of the learning. Statements that are intended to define satisfactory performance require reinterpretation.

**Improving my practice.** My use of Black and Wiliam’s (2009) term *learning intentions* in survey and interview questions may have been unfamiliar to the participants. Participants responded to my survey and interview questions using the terms *intentions, objectives,* or *outcomes.* These terms are imprecise and not synonymous. As an instructor, I need to pay greater attention to the terms used in course outlines and student evaluations. Verification of my interpretation of curriculum terms and criteria for success with the course professor will enable me to more accurately unpack these terms with my students.

In my instruction of clinical skills, I typically review the procedure, demonstrate performance, and mentor student practice. One novice clinical instructor (101sur) introduced an additional step. She performed the skill for students in their clinical site. In doing so, the instructor clarified success criteria and promoted students’ transfer and application of knowledge from lab to clinical practicum. This additional step may be best operationalized, as it was in this example, when the instructor is also an employee of the clinical site and therefore approved to operate mechanical lifts and other equipment.
Engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning.

Instructors. One lab instructor described four instructional steps for promoting student learning and eliciting evidence of their learning: “review the theory, give a demonstration, have the student return the demonstration, debrief” (I10sur). A different instructor described students’ responsibilities: “learning the textbook steps to complete the task, practicing the task in the lab, performing in clinical under supervision with assessment of understanding and feedback, and successful completion of skill” (I09sur). Each instructor described scaffolded steps in learning. What was unclear was how the instructors understood students’ responsibilities for learning and how and if they discussed these with their students.

One practicum instructor reported on an orientation activity designed to prepare students for performing a bath in practicum.

Before giving a patient a tub bath, the students are oriented on the use and cleaning of the tub at the facility. Students are then indicated by the instructor to observe, assist, and then take the lead on doing the skill under supervision. Students feel confident; they know they are performing the skill correctly and safely. (I11sur)

Although this instructor-led hands-on activity contributes to the creation of a safe learning environment for students, not all instructors are familiar with policies, procedures, and the function of equipment at practicum sites. To increase familiarity, one instructor talked about reviewing site-specific handouts as part of the orientation. Instructors did not talk about their orientation for instruction nor their affiliation agreements regarding their responsibilities for creating a safe learning environment.

Conversation and questioning were strategies reported by one practicum instructor as the best way for me to determine whether my students are understanding and learning. I have a conversation with them; together we have a discussion about certain skills and talk
about problems, etc. I get the best picture about critical thinking and whether it is being developed. (I07sur)

Evidence of student learning emerged from scheduled and unscheduled observations of student performance and from planned and unplanned discussions with students, staff, patients, and their families.

Three instructors described strategies for introducing medication administration in practicum. One reported, “I believe that the actual task needs to be modeled for students and then I believe they need to watch the process in the actual clinical setting once by an experienced RN [registered nurse] so they don’t stumble so much on the basics (i.e., where are the meds, where are the med cups). I think this would lead to quicker mastery of the skill” (I06sur). The second instructor reported “before students administer medication during practicum, they shadow the RPN [registered practical nurse] the shift before. Clear expectations are reviewed as well” (I11sur). Translated from French, a third instructor reported,

I observe in training the administration of medication. I question first on the student’s knowledge and calculations about the drug and I then observe the administration and I make sure that the student completes the entire [process], which includes re-evaluation of [the] patient. (I01sur)

Engineering medication administration opportunities in practicum is complex. It requires collaboration at many levels: instructor-student, instructor-staff, instructor-student-staff, and instructor-student-staff-patient. The roles of instructors and RN and RPN staff necessarily overlap. Instructors identified their three steps: (1) assessing student readiness, (2) collaborating with nurses assigned responsibility for medication administration to create conditions for student observation and to support supervision of student preparation and administration of the medications, and (3) supervising student documentation and patient reassessment. The
administration of medication under these supervised conditions in practicum was evidence of student preparedness for performing the clinical skill.

Although instructors were asked about eliciting evidence of learning, two instructors reported on activities that introduced students to other aspects of professional practice. One instructor made efforts to connect students with other health care professionals to increase students’ understanding of others’ roles on the team and how interprofessional team members collaborate. A different practicum instructor stated that her goal was to give students “as varied of a clinical experience as possible” (I02sur). Further to introducing students to clinical practice, these instructors took on additional responsibility to enculturate novice nurses into the profession of nursing.

**Students.** Most students reported that their performance of clinical skills in the lab was different than their performance of the same skills in practicum. “Lab lets you know what to expect in clinical BUT it is not the same” (S02int). Students did not talk about how role-playing and practicing with partners in the lab contributed (or not) to their learning, but rather they said that it was not the same as interacting with a real patient (S15sur). Students also commented that knowing where you are in the process of learning or performing a skill in the lab is different from knowing where you are in practicum. “The lab tells you where you are. Clinical practice helps with knowing where you are” (S02int). Although they described their learning in the skill lab as preparation for beginning as a nursing student in clinical practicum, students did not talk about what was or was not effective for promoting their learning nor did they talk about how they assessed their own learning. One student reported that evidence of learning sometimes came from the lab instructor(s) as they walked about during the lab, observing and giving feedback on student performance (S03int). Only one student made a *connection between* learning to perform
in the lab and future nursing practice: “skills are really important; you use them anywhere you go” (S02int).

Students described having equal access to opportunities for learning in the lab setting; however, they indicated that opportunities for them to participate in tasks that elicit evidence of learning in practicum varied. This was particularly relevant for one student, who stated, “practice of skills in clinical solidified learning” (S04int). At least one student understood the reason for varying opportunities to perform skills in practicum, stating, “Performing skills in clinical is dependent on the facility and the type of patient you have. Some students did not learn as much. Clinical experiences were not all equal” (S02int).

In practicum, evidence of learning emerged from instructor and patient feedback on performance.

Evidence of my ability to employ a particular clinical skill was revealed by either the comfort level of my patient (in that they weren’t afraid when a student was giving them their injection, for example) or when my clinical supervisor expresses satisfaction after he/she watches me practice a skill. Either form of evaluation, either from the patients or my supervisor, helped boost my confidence in what I was able to do. (S15sur)

Insufficient access to these learning opportunities may have contributed to the difficulty some students expressed in self-assessing performance in practicum.

One student reported that some skills, such as administering medications and applying sterile dressings, were best learned in the lab while others were best learned in practicum.

For all medications, and sterile wound dressings, it was the clinical simulation that helped me learn these administration skills. For basic care such as transfers and pericare, it was the practicum that helped me to learn these skills. Although the “simulators” in lab give you an opportunity to grasp the concept, providing care on a person is different. (S01sur)

This student described learning a skill as two progressions: grasping the concept and then performing. Students placed greater value on learning and performing in the practicum. This is not surprising as the way to learn to perform a skill is to actually perform the skill.
Different in practicum was that evidence of student learning came from multiple sources: the patient, staff, instructor, peers, and self. Feedback on performance came from planned and unplanned activities including informal and post-conference discussions about clinical experiences and written instructor comments on course-required assignments. Some students reported that instructor feedback on their reflection assignments also contributed to their learning. Students did not describe the nature of the comments that made these reflections effective.

**Improving my practice.** When introducing nursing students to clinical practice, I followed the customary and expected practice of pairing nursing students with personal support worker staff. In long-term-care settings these employees are responsible for assisting clients with activities of daily living (i.e. providing basic care). My role in practicum was less hands-on at the bedside and more guiding, mentoring, seeking opportunities, and giving feedback to students on my observations and student or staff reports of their clinical performance.

It would be interesting to examine my practice as a clinical instructor in pediatrics where I could draw upon my extensive pediatric experience. It would also be interesting to examine my practice as a clinical instructor in my clinical workplace, where I have electronic access to many resources and am very familiar with policies, procedures, and equipment. To improve my practice in all contexts I will be explicit with my students about the difference between lab and practicum learning. I will help students to understand which skills learned in the lab will form the foundation of their practicum experience. In post-clinical conferences I will initiate dedicated time for students to reflect on how their actual practice “extends” what they have learned in the lab. Integrating reflection in small clinical group discussions and in students’ written
assignments will allow students (and instructors) to understand what learning looks like and inform future instruction.

**Providing feedback that moves learning forward.** This third formative assessment strategy is about feedback that promotes student learning in practicum and lab contexts.

**Instructors.** Only one instructor talked about student responses to assessment feedback.

From student feedback I have received on evaluations, all of my students appreciate the positive and constructive feedback. This happens continuously and is not just on the midterm and final evaluation. I think that it’s not only the type of feedback that has the ability to move learning forward; it’s the frequency as well. Students need to have feedback immediately after something happens (i.e., debriefing at clinical). [Instructors need to talk] with the student [and] other students after performing a skill. (I07sur)

This instructor used the descriptor *constructive*, meaning that in some cases feedback may be corrective. To move learning forward, feedback on clinical performance or assignments may be positive (to reinforce learning) or constructive (to improve or to correct performance).

Novice and experienced instructors reported on their perceptions of the effectiveness of feedback. One first-time practicum instructor (I01int) described effective feedback as immediate, clear, and specific. She provided written feedback on non-graded student reflection assignments with provoking questions, such as “How did you feel that went? What did you learn from that? What could you have done differently?” (I01int). This instructor reported that these clinical course assignments provided a window into students’ thinking about their practice. They gave a “play by play for [the] teacher” (I01int). Her feedback, in the form of questions, was intended to move thinking and learning forward.

An experienced instructor stated that concurrently teaching students in a simulation lab and clinical practicum facilitated her use of formative assessment. Instructing in both contexts, she knows both teaching and practice well. In her experience, it is “harder to give feedback” when teaching only in the clinical setting (I02int). The additional instructional hours provided
more opportunities for building relationships with and giving formative feedback to the same students.

In her interview, she talked about role-playing scenarios in the lab and reported how the formative feedback she gave to students performing in front of their peers moved learning forward.

[It] pushes the students to reflect on what they know and do not know. Second, it places the student in a public domain, practicing in front of others, as will be their experience in clinical practicum where others will give feedback on performance. (I02int)

Additionally she required students whose performance was unorganized or below expectations to submit a critical written reflection on their performance and described the purpose of her feedback on these assignments as anything from “redirects to remedial” (102int). Her instructional practices incorporated complex feedback loops. When introducing new clinical skills, she demonstrated the skill, supervised student practice, explicitly engaged students in assessing their own and peers’ skill performance, and then facilitated group discussion of peer feedback. Instructor feedback assimilated from peer feedback was corrective and constructive, and it informed students’ future performance.

**Students.** Reports on feedback varied. “Sometimes when we practice our techniques we do not always get the attention and feedback we require” (S14sur). In an interview one student stated that “not all students get feedback,” explaining that if a student does not say anything when instructors walk about the lab, the student may not get feedback (S02int). Students described two ways of receiving feedback: spontaneously from instructors and as a consequence of student questioning. The informal, undefined, and unstructured characteristics of feedback can be problematic for students who rely on unsolicited feedback to promote learning.

Students indicated that feedback in different contexts serves different purposes.
Feedback in the lab was by testing methods to ensure that you were able to perform a skill but feedback in the clinical practicum was through the patients themselves or by the clinical instructor. With both of these types of feedback, the instructors were there to guide and the patient was there to let you know if your approach was a good application of knowledge. (S03sur)

For this student, it was instructor feedback on performance and patient feedback on approach that were important. Another student reported feeling more confident to administer injections after a resident commented, “Thanks for being gentle to me” (S03int). The student suggested that because residents in long-term care facilities have received injections for years, their feedback on student-administered injections is seen as worthy.

Students attributed different merit to, and sought particular qualities in feedback from, different sources. “Feedback that moves my learning forward most is that which identifies my strengths as well as my weaknesses” (S19sur). Translated from French, one student reported,

I much prefer to have feedback from a teacher or perhaps a colleague whom I trust. I like to be corrected in a positive way, or [in a way] that suggests to me alternative methods that are easier or more advantageous. I prefer to have the opinion or information from someone who has already been in my shoes or has been exposed to a similar or identical situation to mine. (S14sur)

Overall, students interpreted their self-assessment of performance of a clinical skill in practicum as preliminary evidence of learning. Others’ feedback on clinical performance fortified their confidence and guided their subsequent performance.

Students also reported on factors that may contribute to or interfere with learning. One of these is trust in the relationship between the instructor and student. “How the instructor relates to you is key,” said one student (S04int). Timeliness of feedback is another. “Feedback throughout the lab, not at the end, this gives time for improvement” (S05int). A third factor is communication and conversation. Discussions “in the moment help [me to] see the big picture”
(S04int). In their survey and interview responses, students described formative feedback and learning that occurred in interactions with others in their learning environment.

**Improving my practice.** Instructor and student responses remind me of the importance of giving frequent, clear, specific, and timely feedback to each student. As stated by one instructor, “therapeutic relationships and communication set the context for the learning of the skills” (102sur). Moving forward, I will pay more attention to relationship building with students. I will also give greater consideration to how a student might (mis)interpret my feedback on their performance.

**Activating learners as instructional resources for one another.** This strategy promotes students taking responsibility for and beginning to regulate their own learning. Mobilizing students as learning supports for each other is particularly important in practicum where each instructor typically has eight students and is less available to seven of the students when working closely with one.

**Instructors.** When assigning students to clinical areas, one instructor reported intentionally pairing “engaged and eager students with medium students” (I01int) to facilitate students supporting students learning. Another paired students up “to learn different skills that one student is strong in and the other weak in” (I09sur). Instructors also talked about formalized opportunities for students to share and discuss their clinical experiences at the beginning or end of each clinical day. One instructor reported students “are also encouraged to share resources and to talk over challenging situations with each other during the clinical day” (I02sur).

Instructor responses suggested that activating learners as instructional resources for each other was the best way to stimulate exchanges of peer feedback and thus stimulate learning. One instructor reported that peer feedback was effective for bringing learners together and
recommended that instructors should “incorporate it into the curriculum starting in year one. Peer feedback should be part of every course. If this is the norm, students know that they can go to each other as resources as well” (I07sur).

In the survey, one instructor described three ways to activate students as instructional resources: require a student who has learned a skill to model it for another or walk them through the process; require each student to report on their unique clinical experiences in post-conference, and assign practicum-relevant topics for student presentation in post-conference (I06sur). Another instructor integrated peer assessment in group learning activities, such as peer feedback on student measurement of blood pressure (I10sur). The frequency and variety of instructors’ responses reflected their familiarity with this formative assessment strategy.

Students. One student reported that helping other students has a dual purpose.

I’m motivated to help other nursing students both to enhance my knowledge through reinforcement, but also to give other students a peer that they can talk to in order to answer questions. Asking a peer, as opposed to a clinical instructor, can be easier for some students who have a less comfortable relationship with the clinical or lab instructor. (S09sur)

Students described multiple strategies for interacting with peers. These included creating study groups; communicating with other students either in person or using Skype, phone, or text messaging; booking additional lab time; and approaching instructors. One student reported that talking with peers and talking with instructors addressed different needs.

…discussing things with peers, I gain different perspectives in how to perform a skill and talk about things I may have missed in the textbook or didn’t quite understand. Discussing with a teacher I learn if I am on the right track through compliments or grades and they also help me improve on skills by suggesting ideas to perform certain skills more easily. (S02sur)

There are both intrinsic and practical motivators for students to support each other’s learning. Two students reported they liked to help friends in the program (S01int, S02int). These
friends created a study group and “when my group identifies a problem, we use Skype and talk” (S02int). Students described the reciprocal nature of learning among peers.

I like to share information and help others out in hope that when I have a question, they would be able to help me. I help others when they are struggling to learn something and by helping them I am also testing my own knowledge. (S02int)

In other words, supporting others’ learning supported their own learning.

I am motivated to help other students because I need help sometimes too so I would hope they would be there when I needed them for clarification. To help other students I may enter into discussion to allow them to figure out the best step to take. (S11sur)

It is important to note here that helping other students did not necessarily mean giving others the correct answers or solving their problems for them.

One student described an unusual occurrence that resulted in students sharing information within and across groups.

There has been a large variety of lab instructors in our 4th semester due to unforeseen events. Different professors explained skills in different manners, so I would talk to students in other groups and share tips that my lab instructor had shared, and they would share tips their instructor had taught them. (S01sur)

Students’ efforts to regulate their learning have implications for lab and clinical instructors. In each clinical context, instructors can promote students’ continued efforts towards regulating their own learning by engineering recurrent opportunities to clarify learning intentions and success criteria with their students.

Improving my practice. As an instructor I will continue to schedule dedicated time for information exchange with all students during class summary times and post-clinical conference. I will continue to solicit each student’s report on their learning experience each day and use their examples to discuss effective practices. To increase my awareness of information that students are sharing, including tips that may be useful for others, and to create an opportunity to clear
false information I will explicitly ask students to share their strategies for adapting to clinical practice. I will share relevant examples from my clinical practice. Additionally I will pay greater attention to engineering discussions to reiterate and clarify for students the learning intentions and criteria for success in our clinical context.

Assigning students of different abilities to work together in one clinical area and rotating lab partners for skill practice are two strategies for mobilizing students as instructional resources for one another. These strategies will be more effectively implemented when an instructor knows students’ strengths and limitations in both the skill being practiced and in their ability to offer, receive, and use peer feedback. As an instructor, my strategies will include creating opportunities for peer assessment and engineering group activities that have the potential to activate students as instructional resources. For example, a think-pair-share (Prahl, 2017) approach to considering problems in nursing care or skill implementation requires students to think about something independently and then self-assess how strong their ideas are in relation to another. The final sharing activity allows the pair to discuss the strength of their shared understanding against the understanding that the entire class finally derives. Activities that trigger feedback from peers mobilize students as instructional resources. Activating students as instructional resources for one another may be an interdependent step that contributes to students beginning to regulate their own learning.

**Activating learners as owners of their own learning.** Accountability for, and ownership of, learning are not easily demonstrated, yet accountability is a cornerstone of nursing practice. “Canadian RNs are accountable for providing competent nursing care, which means they must maintain and continuously enhance the knowledge, skills, attitude and judgment required to meet client needs in an evolving health-care system” (Canadian Nurses Association,
Activating nursing students as owners of their own learning is critical to their becoming nurses.

**Instructors.** One practicum instructor (I01int) described her response to a student who was not fully prepared for learning, as evidenced by the fact that the student had arrived late, had come with an incomplete nursing care plan, and had failed to research drugs in preparation for administering them. This instructor reviewed with the student the expectations for developing the care plan and gave explicit directions for correction. To support this student in becoming more responsible for learning, the instructor collaborated with the student in developing a formal learning plan, which identified performance expectations for each clinical date and required daily check-in as a way for the instructor to closely monitor the student’s progress.

Several instructors revealed their expectations of students. A first-time instructor expressed her frustration around student accountability for learning. “Whose responsibility is it if you identify there is not enough practice in lab? Encourage doing that. Practice. I don’t know how you elicit insight” (I01int). An experienced instructor identified that through experience she learned the importance of helping students begin to regulate their own learning. “At the beginning [I] gave answers, and now realize that students need to do [look up the information] for themselves. Teacher talking is not working” (I02int). Another instructor described why students need to be accountable and what this requires.

I expect students to be owners of their own learning. Each student brings a different knowledge and skill base and a unique set of personal and professional experiences so they have to drive their own learning. I expect them to read up on topics they are unfamiliar about, research topics of interest, and initiate requests for certain learning experiences. (I02sur)

Although these three instructors spoke clearly about their expectations, it was unclear if or how they discussed their expectations with their students. It was also unclear whether instructors
actually used any specific strategies to scaffold students from being dependent upon instructors
to becoming more independent. They did not talk about how they helped students learn how to
manage and organize information that they were reading or learn how to recognize key points in
a reading or key actions in a skill.

One instructor talked about how students prepared for clinical practicum by learning
skills in the lab and about the importance of reassessing student preparedness for performing the
skills learned in practicum.

In the clinical setting, as teachers we assume that the students are prepared from the
laboratory setting but we need to be strict and hold them accountable. Asking critical
thinking questions can easily get to the bottom of whether the learner has come to clinical
prepared to assume patient care and perform skills such as administering intramuscular
injections. It becomes clear when you have ongoing conversation with a student
performing a skill, whether they have come prepared and taken ownership for their
learning. (I07sur)

Another instructor offered a softer approach for activating students as owners of their
own learning. “Guide them. Remind them of the College standards. Remind them of their role in
learning. Encourage them to become more independent/proactive in their learning—[it’s a]
gradual process” (I09sur). Two instructors (I02sur, I10sur) stated an expectation that students
activate their own learning but one did not talk about how ownership might be activated. The
other (I10sur) suggested this could be accomplished by asking students to take ownership and
reminding them of their need to review.

Instructor responses about how they might activate student ownership of learning were
not helpful for improving my instructor practice. Leveraging student ownership of learning may
be a significant challenge for instructors, particularly practicum instructors, who have
responsibility for supervising novice nursing students providing care to real patients.
**Students.** One student defined taking more responsibility for learning, stating that “in clinical practicum to do well takes more than learning in the class. It takes you to be interested in what you are doing, to have empathy. I put all of myself in what I do” (S02int). This student offered an example from medication administration to illustrate the importance of making connections between the medication prescribed and a patient’s condition. She measured a patient’s blood pressure and obtained a low reading. “Knowing the prescribed medication would lower blood pressure, I notified the nurse and was told to hold the medication” (S02int). The student’s decision to report to the nurse first was a consequence of understanding the implications of giving one medication and knowing its side effects.

Another student reported his/her strategy for owning learning was “to keep [the] book nearby” (S01int) when practicing a skill after the instructor demonstration. One student reported that the practicum instructor in her clinical group asked the students if they had concerns about any skills. This student reported that she had a fear of giving an injection and told the instructor and “she worked with me to perform it,” adding that her instructor “sought out opportunities for students” (S02int) to perform the clinical skills that they had learned in the lab. Students were expected to be prepared.

Two students spoke about investing more time and effort in learning to give an injection. Although their advance preparation for learning all skills included reading to understand the process and observing the instructor demonstration, these students described a more serious approach and investing more time in practicing this skill.

For all clinical skills, I do my pre-reading and make sure that I understand the theory behind the skill. However, for certain skills such as feeding vs. injections, I take the injection more seriously and spend more time on that skill. (S01sur)
Although the student did not explicitly state this, she probably took the injection more seriously because of the potential for negative consequences if she administered it incorrectly. The other student reported “learning new skills the same way, by reading about them, watching a demonstration, and then performing it on my own. For more difficult tasks like an intramuscular injection I would probably repeat the process or practice it more often before doing it myself but I usually learn things all the same way” (S02sur). One student reported an alternate or additional approach. “If the skill is more complex I like to watch a video on it because I am a visual learner” (S12sur).

A student from the second cohort of participants made decisions about learning on the basis of her prior experiences, reporting,

…as I’ve already spent some time in the hospital for certain clinical rotations, I have observed what skills actual nurses practice more routinely than others. Therefore, when the time comes to learn a skill in lab, I am more eager and serious about learning ones that I have seen being used in the hospital by nurses than those that are less common. Additionally, if the skill involves an unfamiliar tool that I have never used before, I will also pay more attention and be more attentive when learning in the lab. (S15sur)

Understanding how each skill fits into overall nursing practice helped this student to make better decisions about what needed a significant amount of attention and possible independent learning.

Descriptions of students’ strategies and efforts to learn revealed their understanding of a connection between learning and its potential impact on others. One student described how completing the assigned lab readings enhanced her learning in the lab by allowing her “to spend what little time you have on the actual skill, instead of trying to catch up and figure out how to do the skill” (S01sur). Another student described multiple strategies.

Practice at home is one of the biggest things that I can do. Also, getting a part time job to reinforce learning is another good way to improve learning. Searching online for videos of proper techniques can be helpful, though they aren’t always accurate. I also use online databases to search things I have particular trouble with. (S09sur)
Although these students answered the question about owning learning, two students reported observations of less engagement in learning and the implications this had for the student, other students in the lab, and instructors. One student reported that the extent to which other students take lab pre-readings seriously differs. “When you work with a partner who did not study, you know” (S02int). The other student reported that ownership of learning, or not, is a decision made by each student. “To each it is their choice if they want to be accountable” (S01int). This response raises alarms and highlights the importance of heeding the first formative assessment strategy: clarifying, discussing, and understanding learning expectations and success criteria, to avoid misinterpretations of program outcomes and curriculum expectations.

*Improving my practice.* Instructors talked about their expectations of students in terms of students’ actions that demonstrate ownership of learning, such as practicing clinical skills to improve performance and researching medications before administration. When explicitly questioned about owning their learning, some student participants described what this was and how they did it (i.e., research the new skill, attend the lab, ask questions, practice, and ask for feedback) (S03sur). It was unclear if instructors and students shared the same definition of learning and thought about ownership of learning in the same ways.

In the lab, when a student does not take ownership of their learning it impedes their learning and the learning of others. In practicum, significant harm to others may ensue if a student has not activated their own learning. To improve my instructor practice and encourage students to take ownership of their own learning I will design a simulation lab activity requiring students to perform a new clinical skill. In the post-clinical conference in practicum, I will introduce a case scenario based on student preparedness (or not) for performing a clinical skill. In debriefing the simulation and discussing the case scenario I will focus the discussion on
students taking ownership of their own learning and the potential consequences if they do not do so.

Ramaprasad (1983) described three processes of teaching and learning from the teacher perspective: where learners are, where they are going, and what needs to occur to get them to the goal. Instructors identify where students are in the process of learning and make instructional decisions for moving students forward. Student ownership of learning within these three processes is not defined. When asked questions about ownership of learning, the nursing students who participated in my study may have been focused on their achievements in the present rather than their professional learning journey. Moving forward, I will draw students’ attention to this formative assessment strategy by explicitly reviewing the curriculum expectations related to students taking ownership of their learning, and then I will share, discuss, and clarify my expectations for students to take and demonstrate ownership of their learning.

To improve my instructor practice and scaffold student learning, I will engineer activities so that students can assess their own learning needs. To assess my students’ readiness for performing particular skills in practicum (e.g., catheter care), I can improve my practice by implementing a think-pair-share activity. As a scaffolding strategy for administering subcutaneous injections in practicum, I can provide a procedural outline and meet with each student one on one to review, discuss, and practice each step and require the student to judge their own performance.

Using Conventional Survey Research Methods as a Mechanism for Self-Study

I chose to reach out to clinical instructors and their students to examine, compare, and contrast their understandings and experiences of formative assessment with mine. I chose a purposeful sample of clinical instructors and their second-year students because their
experiences would be closest to my own and could thus be particularly informative for me. My prior experience as a clinical instructor of second-year students at the collaborative sites of one university included in this study provided me with a limited insider understanding of both the communication networks within these educational organizations and the potential receptiveness of these organizations to an inquiry initiated by an outside source. Although decision makers in these organizations were willing to support my efforts, I encountered a number of barriers to using conventional survey research methods to further my professional learning about formative assessment.

**Recruiting.** The high number of potential student participants ($n = 384$) in the first cohort contributed to the recommendation by those responsible for monitoring research in the organizations that I disseminate information about my study and specifically about the surveys and interviews through course coordinators at each site. I had no direct access to potential student or instructor participants. Even if I had had this access, the students would not have known me from any of their program experiences. The fact that I could not introduce myself and that instructors and students could not ask me questions about the research directly meant that the only way to persuade people to participate was to hope that the topic of the research interested them. This leaves me to wonder whether the introduction to and letter of information about the research may have raised questions that needed to be addressed to encourage participation. The entire process became more complicated because there was a change in clinical coordinators at two of the sites during my study.

**Time requirements.** One consequence of the challenges I faced in recruiting was that my plans for implementing and completing this piece of research required radical adjustments to the tasks I had to complete. The rhythms of the school year, including lab schedules, practicum
dates, and exams, restricted when I could collect data. For example, to seek out a second cohort of participants I needed to submit two additional research board applications and revisions as requested (see Appendices A, B, C, D, E). One of the research sites I got permission to work in informed me that they would require me to conduct my inquiry in both official languages. This meant that I needed to create bilingual letters of information, consent forms, surveys, focus group protocols, and interview questions. In addition, my timelines had to accommodate the schedule of an English/French translator whom I hired at my own expense.

I planned to collect data as students and instructors were approaching the end of practicum and lab learning experiences so as to draw upon participants’ experiences while these were still fresh in their minds. Late in the term, however, is also when final clinical evaluations occur and student exams begin. Delays in receiving ethics approval meant that I had to postpone recruitment of participants until the end of the semester. Clinical instructor contracts end when the practicum ends. Exams signal the completion of courses and students are then off-campus until September. Second-year students become third-year students. It was not possible to collect data from these instructors or students past the end of the semester. Low participation from this first recruiting effort led to my submission of amendments to include an incentive to participate and the addition of a second cohort of participants. I revised my recruitment documents and survey titles for the second cohort of participants. The addition of a second cohort of instructors and students extended the data collection period.

**Reliability.** In a typical self-study, the practitioner discusses their experience with a critical friend to elicit feedback, and this increases reliability. In this self-study, I did not share or seek feedback on my experiences of formative assessment with a critical friend, as I did not have a nursing instructor colleague. Although discussing my experiences with my supervisor does not
replicate the conditions under which most clinical instructors work and would implement self-study, her knowledge of formative assessment in education and her critique of my research in nursing education was strategic for transferring knowledge about formative assessment from education to nursing.

To extend my professional learning I reached out to instructors and students for their perspectives on each of the five formative assessment strategies. Their interview and survey responses to my questions about formative assessment were descriptive and analytical. I compared and contrasted their experiences with my own.

With such a small sample size there is no way to know whether the data collected reliably represent the ideas and experiences of second-year instructors and students. Because interview data and survey data support each other, and because all participants had the same opportunity to contribute through the instruments I developed, it is possible to trust that the data I collected are an accurate representation of the ideas and experiences of my sample of instructors and students. These efforts promote credibility and dependability, two aspects of trustworthiness in qualitative research (Merriam, 2009; Shenton, 2004).

**Considerations.** Conducting research in this way may be less problematic for instructors who are working in faculty nursing positions. A strong sense of identity within the school as well as knowledge about the culture of the organization are likely to lend more authority to the faculty researcher and credibility to the research as well as better opportunities to select participants and manage timing so that it doesn’t conflict with other program commitments or rhythms. The goal is to collect an adequate amount of data to answer the questions you are asking. For individuals like me who may require support to acquire a broader picture of a particular aspect of nursing
education practice and wish to use tools such as surveys, interviews, and focus groups, I recommend the following:

- Choose a single site that is similar to the site where you are likely to conduct your program of research.
- Focus on developing a relationship with an administrator who supports your work and will provide some counsel as you make implementation decisions.
- If you require ethical approval to collect information, find out how much time approvals tend to take and whether there are particular application deadlines. Leave enough time that a delay in approval will not derail your inquiry.
- Introduce the inquiry and disseminate recruitment information directly to potential participants yourself. Your explanations will be more enlightening, and it is hoped that direct contact with you (the researcher) will motivate individuals to participate.
- Locate a critical friend, namely a respected colleague who is engaged in professional learning, shares your research interest, and can critique the interpretations and inferences you make from the data.

Conventional survey research is time consuming to prepare for and to implement. You need a background in research methods to have confidence that the instruments you are developing for data collection and the way you are analyzing the data can actually answer the questions that you have about practice. Surveys, interviews, and focus groups have the potential to provide powerful information about the nature of instructor practices as well as students’ responses to these practices. It is apparent to me now, however, that new understandings of this nature are most useful when the goals are to locate one’s own practices within a particular context, to inform the field about the scope of and variations in particular practices, and to draw
inferences about the implications of these practices for students in general. Unlike the use of self-study, conventional survey research is not a system of inquiry that lends itself well to the kind of professional learning that is required when there is an immediate need to adjust or adapt one’s own professional practice.

Conclusions

Instructor and student responses to my questions about their formative assessment strategies have informed my thinking and my practice as an instructor. I hope these explicitly shared experiences will inform and enhance the instructional practices of instructor colleagues and contribute to teaching scholarship in the profession of nursing.

The first strategy, clarifying, sharing, and understanding learning intentions and success criteria, was problematic for instructors and students. Curriculum developers did not explicitly define learning intentions and success criteria, leaving instructors and students to interpret the developers’ intentions or construct their own definitions in each education context. To establish a shared understanding of learning intentions and success criteria it is essential that instructors initiate and continue these discussions with students.

To promote clarity for instructors and students, curriculum developers must use terms consistently and define these terms in all curriculum documents. Consistent terminology is particularly important for learning intentions and success criteria in the course outlines and clinical evaluations. Clinical instructors have a responsibility to ask for clarification of the intentions, criteria, and terminology if and when necessary for themselves and for their students. A uniform interpretation of learning intentions and success criteria supports instructors and students. It helps instructors to design activities that elicit evidence of learning. It provides a
guide for self, peer, and instructor assessment. Formative feedback based on one interpretation of learning intentions and success criteria promotes learning. It is more precise.

A unique feature of paired or group learning tasks and the resulting formal or informal peer feedback they generate is their innate ability to activate students as instructional resources for one another. Implemented formally or informally, peer assessment offers feedback to guide next steps in learning and to monitor performance. Activating students as instructional resources for one another offers the potential to mobilize students as owners of their own learning. Helping students begin to regulate their own learning is a desirable outcome. Clinical instructors can support students’ efforts to regulate their own learning by designing and implementing activities and tasks that require peer assessment.

The concept of multiple feedback loops emerged from the instructor data collected in this study. Integrating self, peer, and instructor assessment in the design of a learning activity will elicit formative feedback from different perspectives. This concept aligns with the strategies of providing feedback that moves learning forward and activating students as instructional resources and owners of their own learning. The concept of multiple feedback loops is complex and demands closer examination. A reasonable next step for my continuous professional learning (and for others) is to focus on an element of the clinical curriculum that an instructor must pay attention to in order to create conditions for nursing students to regulate their own learning.

Reaching out to others through surveys and interviews did not contribute to my professional learning about formative assessment in the way I had anticipated. Still, the willingness of a small group of instructors and students to share their ideas and experiences did support my continuous professional learning and my self-study of formative assessment practice by triggering further reflection on my own practice. With their help, I have been able to identify
new opportunities for inquiry into the potential of formative assessment in my work as a clinical instructor. For example, one instructor declared that she used anecdotal notes to “foster and encourage student learning” and that they were also “effective [for] increasing one-on-one teacher: student feedback” (I01int). She reported that her written constructive feedback to students seemed to be most effective when it took the form of asking students questions about their thinking. She viewed written student reflections as “windows into students’ thinking about their clinical practice” (I01int). Instructors’ responses to students’ anecdotal notes contribute new ways of thinking about how a clinical instructor might construct feedback to advance student thinking. This is an interesting area for further research. As the next step in a series of self-studies I will focus my attention on students’ written reflections and explore ways to provide feedback that can contribute to both their learning of clinical skills and their self-regulation of learning.

In documenting my experiences and presenting them in this manuscript, I hope to encourage other lab and clinical instructors to consider the potential of both conventional survey research and self-study forms of inquiry. What I have learned about the use of Black and Wiliam’s (2009) five formative assessment strategies may also act as a resource for instructors already interested in exploring the role of formative assessment in nursing education. Additionally, findings from this study draw attention to the importance of achieving one shared understanding of success criteria and learning intentions, ensuring consistency in curriculum terminology usage, and developing learning activities or curriculum assignments that incorporate multiple feedback loops. These have implications for curriculum developers. Addressing these findings may also contribute to teaching scholarship in the profession of nursing.
References


Chapter 6: At the Intersection of Formative Assessment and Reflective Writing

Clinical instructors face three significant challenges as they guide nursing students to be competent professionals. The first is to implement the required elements of the clinical curriculum using both their instructional and formative assessment practices. The second is to be responsive with their instruction and assessment in the often-unpredictable clinical contexts where students are learning. The third is to promote and support students’ efforts to recognize and respond to their own learning needs as they navigate a demanding clinical journey. This third challenge is likely to persist when students are not confident in judging how well they are learning or achieving and when the criteria for these judgments are vague or are left to the discretion of their instructor. This skill of regulating their own learning, however, is what will ultimately shape students’ professional competence (Mullen, 2007; Zimmerman & Schunk, 2011).

This is my third in a series of self-studies on the integration of formative assessment into clinical nursing instruction (see Chapters 4 and 5). I chose self-study (Alderton, 2009; Bullough & Pinnegar, 2001) as my method for inquiry primarily because it is a deliberate and critically reflective approach for examining one’s actions in practice (Samaras & Freese, 2006). Self-study requires systematic and descriptive documentation of events and interactions within the professional context, followed by reflection on and analysis of this documentation. In my self-study work, ongoing reflection consists of analysis and recursive interpretation of my own thinking and behaviours in light of my students’ experiences. This effort allows me to construct meaning of our interactions and to make informed decisions about the next steps to take in my practice. Self-study supports my efforts at continuous professional learning to become a better clinical instructor and to contribute to the fields informing my study.
In the first self-study I interpreted and then worked to integrate Black and Wiliam’s (2009) five assessment strategies in both practicum and simulation contexts. These strategies are as follows: clarifying, sharing, and understanding learning intentions and criteria for success; engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning; providing feedback that moves learning forward; activating students as instructional resources for one another; and activating students as owners of their own learning (Wiliam, 2011). I learned that these strategies, which were found to promote student learning in school classrooms (Black & Wiliam, 2009), were also effective in supporting my clinical nursing instruction, resulting in a more powerful learning experience for my students.

To better understand formative assessment in nursing practice, I next used surveys and interviews to reach out to learn about the practices of other clinical instructors and the experiences of their students. Although only a small number of instructors and students participated in this inquiry, their descriptions of effective teaching and learning strategies highlighted the importance of instructors and students having a common understanding of the curriculum expectations and the accompanying success criteria. I learned from the instructors in this study that integrating formative assessment feedback loops into learning tasks and activities was an effective strategy for sharing and reinforcing these expectations. Some instructors acknowledged designing activities that required students to give and to receive formative feedback on their performances. This confirmed that in some tasks students were being mobilized as instructional resources for each other. To be formative, feedback must be used (Black & Wiliam, 2009). Students identified formative feedback from self, peers, and the instructor as useful to understand and achieve the success criteria. However, neither instructors nor students identified the use of this feedback as a strategy to activate students as owners of
their own learning. My professional learning about the uses and potential of formative assessment in these two studies triggered new questions for me about how an instructor might operationalize elements of a curriculum to trigger conditions that encourage students to be confident enough to begin using feedback to make decisions about what they know and can do, and how their own learning processes should unfold.

**Research Purpose and Question**

The purpose of this self-study was to examine the influence that nursing curriculum had on the use of formative assessment and subsequently on students’ opportunities to become more self-regulated in their learning. My question was the following: *How well does the curricular expectation that students reflect on their own learning serve the intended purpose of supporting independent self-regulated learning?* My intention was to provide formative feedback on student reflections. I anticipated that engaging in this self-study as a form of continuous professional learning would enable me to better understand how providing written comments on student reflective writing might work as a formative assessment strategy in support of self-regulated learning.

**Study Context**

The context for this study was a university nursing program in Nova Scotia. I was a clinical instructor assigned to instruct and supervise eight first-year nursing students in a clinical setting as part of an introductory clinical course. In preparation for this opportunity, I attended an organized scholarship day for clinical instructors and participated in simulation activities with all students. Following didactic and simulation preparation for our clinical practicum and a meeting with the clinical manager at my assigned site, my group of students and I engaged in 120 hours of learning in a convalescent geriatric assessment setting. Throughout this instructor experience I
continued using the elements of self-study, specifically my own reflective journal, to document
and analyze my efforts to use formative assessment.

**Formative assessment.** Having been engaged in self-study around the use of formative
assessment for two years, I felt confident implementing the formative assessment strategies that I
had learned to be effective in my earlier instructional experiences. With my students I attended to
the five assessment strategies advocated by Black and Wiliam (2009) described above. The focus
of my attention for this self-study, however, was on student reflection assignments and their
potential for helping students develop self-regulating skills.

**Student reflection assignments.** The professor who had authority for the course
curriculum notified all students of the requirement to reflect on their beginning practice. At the
end of the first and second weeks, students electronically submitted to their clinical instructor a
written reflection describing what they were learning as beginning nurses. The course professor
also notified all instructors of our responsibility to apply a specific rubric to assess these
reflections. The rubric, adapted from a document from a provincial nurse licensing organization,
identified five elements that students were required to incorporate into their reflective exercise:
focus, reflect, assess, make meaning, and explore (FRAME). There were three levels of
performance criteria for each element: excellent, satisfactory, and unsatisfactory. These criteria
made up the cells of the rubric. The rating for each element was translated into a mark out of
three (see Appendix J). A total mark out of 15 was assigned to each of the two reflections
students submitted. A student’s total mark on an assignment also represented a standard of
performance: excellent (12–15), satisfactory (9–11.9), and unsatisfactory (less than 9). These
marks were to be included in the calculation of students’ final clinical course grade.
Rationale for Study

While I was pleased there was an expectation in the curriculum that students engage in reflective practice, I was immediately concerned about the consequence of grading these reflections. I wanted to see if, under these conditions, there was a way the activity would (1) help me to monitor how my students were thinking about their learning, and (2) allow students to use their reflections and my feedback to make better decisions about how to proceed with their own learning. Could these reflective submissions promote growth, not only in the expected practical nursing skills but also in the skill of learning how to learn? I hoped that through this inquiry I would develop a better understanding of the relationship between curriculum decisions and the value of formative assessment as a support mechanism for student self-regulated learning.

Curriculum decision makers developed reflection assignments with an accompanying rubric in an effort to promote students’ reflection on their learning and to support instructors in grading these reflections. In a three-week practicum, positioning these assignments at the end of the first and second weeks allowed time for students to think about their beginning practice and for instructors to grade and return the first assignment before students submitted the second one. It also allowed time for students to use instructor feedback to improve their clinical performance the following week. What decision makers may not have taken into account was the extent to which students would be capable of reflecting on their learning, and how grading influences the quality and content of a reflection.

Background Literature

Reflective Practice is Thinking-in-Action

Schön (1983) differentiated between professional knowledge, described as “instrumental problem solving made rigorous by the application of scientific theory and technique” (1983, p.
21), and tacit knowledge, which comes about from a competent practitioner’s recognition of patterns and associations, a *knowing-in-action* through *reflection-in-action* (1983, p. 54).

Examining professional practitioners’ reflections, Schön (1983) proposed that reflective practice is the activity of thinking about one’s practice through reflection on past or present actions. In his study of reflective practice, Schön replaced the word *practice* with *action* to address problems with the term *practice*. This added clarity to his description of a reflective practitioner as a professional who thinks while acting. Reflection precedes knowing. In this self-study I explored the potential of student’s reflective writing and my formative feedback to facilitate students’ development of tacit knowledge.

**Reflection and Reflective Writing**

The definition of the term *reflection* is elusive, partly because the term is used and understood in different ways and it is not possible to observe the process of reflection (Denton, 2011). Allan and Driscoll (2014) define reflective writing as

…a potentially transformative act of responding to, connecting with, and analyzing an experience, event, process or product. Reflection is one way to bridge the divide between thought and action—an opportunity for students to describe their internal processes, evaluate their challenges, and recognize their triumphs in ways that would otherwise remain unarticulated. (p. 37).

When aligning this definition with the clinical nursing curriculum I was using, I assumed the purpose of the student reflection assignments was to have students think about their beginning nursing practice by describing and analyzing a clinical experience. In doing so, the activity (thinking) and actions of reflection (evaluating and responding) could create conditions for nursing students to self-assess the quality of their learning and thus begin thinking about how to adjust their learning in ways that could address their self-identified needs. I decided to provide
feedback on students’ reflections as a way to support this process, even though I was not required to do so by the rubric.

**Assessing Student Reflections**

I began implementing the curriculum expectation by initiating whole-group and individual discussions with students about curriculum learning outcomes and success criteria. The course professor who was responsible for assigning students’ final grades had provided direction on how to mark the reflection assignments (see Appendix K). I shared this information with my students. I explicitly defined and described professional conduct, clinical competence, and the curriculum expectations for the students’ assignments. This activity is consistent with research on teaching behaviour that promotes both student growth and achievement (Hagler & Morris, 2015). Each day I gave regular feedback to students on their preparation, participation, and performance and purposefully planned how I might implement the five formative assessment strategies (Black & Wiliam, 2009; Wiliam, 2011). In a dedicated reflective journal I documented my efforts and reflected on my students’ responses to the formative assessment I provided on their reflections.

Students were required to submit their reflections to me at the end of the first week and then again at the end of the second week. To optimize the usefulness of both the reflective exercise and my formative feedback, the students and I discussed the curriculum learning outcomes underpinning the reflection assignments. I explained the intended connection between the reflection assignments and provincial nursing requirements for reflective practice and lifelong learning. Together we examined the meaning of the FRAME elements (focus, reflect, assess, make meaning, explore) and the criteria being applied by the rubric to each reflection (see Appendix J). I also explained how I would provide the students with feedback on their
reflections to help them with their professional growth. In this way I thought it was reasonable to examine how formative assessment on reflective practice might influence students’ willingness to become more self-aware and proactive in their learning.

Because my goal was to provide formative assessment to encourage growth and self-awareness, my first step was to add a section to the bottom of the rubric where I could offer my observations and comments. In each individual student assignment I looked for expressions of learning about themselves as nurses and statements about what they had done or planned to do to become better practitioners. As I read and reread my students’ written reflections, I considered how my written feedback might scaffold students’ thinking about “learning how to learn” as a nurse. For grading purposes (summative evaluation) I evaluated each student’s assignment against the criteria in the rubric and awarded a score out of 15. I returned the assignment with highlighted text, an assigned mark, and my written feedback to the student electronically.

**Self-Study Method**

**Data and Analysis**

**Instructor book.** I continued my clinical instructor practice of keeping an instructor book for documenting notes from any meetings with program or site contacts, my daily assignments for students, and the post-conference topics. Throughout each clinical day I also made entries in this instructor book on observations, learning activities, ideas for future instruction, and students’ progress. My instructor book was a repository for documenting my progression as an instructor new to this curriculum.

**My reflective journal.** Following each clinical day, I continued the practice I had implemented in my first self-study. I reviewed the notes in my instructor book and then documented in a dedicated reflective journal my thinking about my instructional practice and
student responses to my efforts to implement formative assessment strategies. From these deliberations I made evidence-informed decisions about my next steps in supporting student learning.

**The curriculum expectations.** As an instructor new to this curriculum, I familiarized myself with the Bachelor of Science in Nursing program document at my institution. In this undergraduate curriculum, teaching and learning focus on knowledge, values, and practice. Reflective practice is identified as one aspect of nursing practice: “Nurses engage in processes of critical thinking and reflective practice when working with clients and members of the health-care team. They use systematic processes of problem-solving and decision-making” (School of Nursing, 2014, p. 4). Reflective practice is addressed explicitly in the first curriculum outcome (see Appendix L), but I proposed to students that the skills of demonstrating, practicing, communicating, collaborating, and analyzing, which are all expectations of the curriculum, require knowledge that is anchored by reflective practice. The evaluation tool for the practicum as a whole, used by practicum instructors and their students to discuss and comment on student progress at the midpoint and end of the three-week practicum, was founded on these expectations.

**Two student reflection assignments.** Each student submitted two reflection assignments. On assignment due dates, I downloaded each student assignment. I first read the student reflection narrative. On second reading I read the reflection with the rubric, considering the assignment against the descriptions in the rubric. I electronically highlighted text that represented evidence the student had met the success criteria. This was my attempt to draw the student’s attention to what they said they did, saw, felt, or thought; what they indicated was beneficial and/or what they would do differently; and any reasons they gave for how they came
to these determinations. Such content indicated that the student was beginning to *know-in-action*, which emerges through *reflection-in-action*. Next, I considered the quality of this content to decide on the score for each element and then calculated the overall mark for the assignment.

**My formative feedback on student reflections.** I had carefully constructed individual responses (a) to affirm where the student was in their learning to become a nurse; (b) to confirm their journey towards becoming a professional practitioner; and (c) to prompt or provoke students to think about their next steps towards this goal. Referencing my feedback to the first student on their first reflection assignment (S01Ref1), more specifically, I

- commented on the students’ application of FRAME to write the reflections (e.g., “You have followed the FRAME outline closely…”), (S01Ref1)
- acknowledged and affirmed specific descriptions or statements (e.g., “…and describe reflection on a situation where you drew upon prior knowledge of your patient [discussion with nurse the day before],” (S01Ref1)
- and ended with a brief thought, probing question, or comment to prompt the student to think of other perspectives, actions, or options for moving forward (e.g., “You indicate good understanding of the importance of gathering information that will allow you to provide organized care to your patient.”) (S01Ref1)

(See my complete set of comments in Appendix M). I also examined the second assignments for evidence that students had incorporated feedback from their first assignment into their practice and their second reflection.

**The reflection rubric.** The rubric framework, adapted from a provincial nurse licensing organization, is described above (see Appendix J). This was my first experience using rubric criteria to assign scores to student reflections. As required, I assigned a score to each FRAME
element and submitted final scores for each student reflection assignment to the professor responsible for this introductory clinical course. The course professor determined how these and other assignment scores contributed to students’ final summative grades.

**Data Management**

I assigned a code to each student’s reflection. Students were assigned a number from S01 to S08 and each of their reflections was assigned a number. S01Ref1 represented student one, reflection one. S05Ref2 represented student five, reflection two. In total there were eight students with two reflections each. For this study I re-examined the first and second reflections of each student, looking for what they reported and my instructor feedback, and then I reflected on my feedback. I looked for evidence of connections between what the student reported in their first reflection and their second reflection. I also looked for evidence that the students had used my feedback.

**Findings**

**Student Reflections and Formative Feedback**

According to the criteria specified on the rubric, all students achieved the highest standard (excellent) on both assignments. Student scores on the first reflection assignment ranged from 13 to 15. On the second assignment, marks ranged from 14 to 15. Despite my invitation to do so, not one student approached me to discuss their scores or my written formative feedback. Given that their scores were an indication of high achievement on a summative assessment, it is likely that students saw no need to improve what they were doing or how they approached the task. Another explanation is that students understood my instructor feedback and/or were content with their scores.
Of concern to me was the discrepancy between the score I assigned on the basis of the rubric’s criteria and the struggles I observed students having as they engaged in the reflective process. For example, two students (S01 and S06) had difficulty focusing on a specific situation for the assignment. They both, however, reflected in some detail on the situation they ultimately chose to discuss in the assignment, describing what went well or did not and identifying supports or a new action or skills they would need to handle a similar situation in future. As such, they satisfied the criteria for each element.

Two students (S02, S05) attained lower scores on the second reflection than they had on the first. S02’s first reflection focused on attending to a client’s discomfort. I commented, “You show attention to details and the process” (S02Ref1). The same attention was not apparent in the second reflection. Looking at my comment now, I wonder if she interpreted the “process” I had referred to as that of providing care to the patient or of attending to the criteria of the FRAME rubric. What is clear is that the student’s initial score of 15 (out of a possible 15) did not promote her learning. The contexts of her two reflections were not connected. In the second reflection, S02 stated she was “learning to be more comfortable with bathing” (S02Ref2) and that this would assist her in future similar situations. I assigned a score of 14. It was challenging to give feedback when the reflection was about something intangible. How does one learn to be more comfortable? I suggested, “For your future reflections try to go more specific, then deeper.” Now I wonder if, and if so how, she understood what my feedback was asking her to do.

Student S05 also scored lower on the second reflection. In her first reflection she focused on patient dignity, specifically in the contexts of using the commode. The student responded in a way that addressed all FRAME criteria (S05Ref1) and I awarded a score of 15. The student prefaced her second reflection with a curriculum outcome: “Demonstrate through examples how
you communicated, collaborated, and/or partnered with clients and other members of the healthcare team to provide safe, timely, quality, patient-centered care and your challenges and strengths” (S05Ref2). Grounding her reflection on this outcome widened the reflective lens. The student drew upon her experiences using a stand-sit lift and advocating for a diabetic client.

Using the rubric I awarded full points for the elements reflect and explore but felt there was less evidence of the student’s effort to focus, assess, and make meaning. What the student did do was describe two additional clinical situations as a way to document achievement of the curriculum outcome. Scoring on the reflection rubric did not allow for this level or breadth of response.

Although it may be that students felt more comfortable with the second reflection assignment given their “excellent” score on the first one, six students took more risk in presenting their situations on the second assignment. One student described how she became unsettled in working with a patient with dementia.

Recently a patient with dementia thought that she was a worker at the hospital instead of a patient. The patient called a family member to ask her to pick her up because her workday was done. The family member proceeded to tell the patient that she was not in fact at work but she was a patient in the hospital. The patient turned to me and asked if I could talk to the family member and tell them that the patient was in fact working all day and was not a patient at the hospital. When I was asked this I initially was unsure what to do, because I could not tell the family member that she had been working because it was not true. I also did not want to tell the patient that she was actually staying at the hospital because she was already very upset and I did not want to make it worse. (S03Ref2)

The student’s reflection on this situation warranted full scores for the elements of focus, reflect, and assess. In my written feedback I commented on the student’s use of FRAME and commended her for asking the nurse for advice. “The FRAME model worked well in this situation. It is a dilemma for staff in these situations. Asking the staff nurse for her response in these was a good strategy.” Despite rich description of her experience of this situation, I did not give full scores for the elements of make meaning and explore. Questions within the elements
make meaning and explore demanded deeper thinking and may have limited the student’s reflection in some of the student-selected situations. This student may not have considered discussing with others or reading the care plan to make meaning, or reading about dementia as a way to explore supports or communication strategies. Alternatively, she may have taken these steps previously as part of her research for planning care and therefore did not think that they represented doing something different in this reflection. It is also possible that the student was looking for my feedback on her performance to think about how she might respond differently next time and to identify supports or skills for enhancing her abilities. She had implemented my feedback from the first reflection (So3Ref1), “Asking another nurse in times of ‘trouble with a patient’ or when you ‘are nervous’ is a solid strategy. Asking questions shows a willingness to learn and demonstrates safe practice. If you don’t know, ask.”

Another student admitted to being uncomfortable in talking publicly about a patient.

It was only the second day, and as a group of us loaded in the elevator for lunch, along with another worker and a family member, one student used the first name of the client while speaking of her, and then, abbreviated her name into an endearing nickname. I was immediately taken aback. We learn, within the first few days of our nursing degree, the importance of confidentiality, maintaining dignity, and the importance of family-centred care. While the student had been saying nothing but praise for the patient, I could not help but wonder: Was the fellow worker cringing at the breach of privacy? Was the family member worrying about what nicknames their loved one receives, or what kind of information leaves the unit? Or, was the family member able to detect the fondness the student had developed for the patient, and understand the excitement of wanting to share a success story? (S04Ref1)

In this example the student described a situation with peers in a public space and expressed her thoughts about what the others present might be thinking. For me, these reflections presented more sophisticated evidence of the focus, reflect, and assess criteria. What they didn’t do was address directly the make meaning and explore criteria specified by the rubric. To earn full points the students had to identify what they would do differently the next time and state the new skills
or supports they required to act in this way. As student 03 reported, “I think that in situations like this there is no way to know exactly how to react or what to do seeing as it will be different under every circumstance” (S03Ref2). Applying the rubric to each reflection to establish a score helped me to understand the limits of the rubric.

Below is an example of an entry to which I did award a full score on the make meaning criterion. I was persuaded by the writing that this student had thought about the implications of her behaviour both for herself and those around her.

I would like to think that next time, after reflecting, that I would speak to the student afterwards. I do not believe it would be my place to be condescending or judgmental, but rather just offer a reminder about confidentiality, regardless of what was being said. The discussion would provide me with an opportunity for growth, by having to deal with a situation that makes me uncomfortable, as well as providing me with the opportunity to practice advocating for the patient and the family, in the simplest of ways. (S04Ref1)

Overall, I was disappointed to see that there was little evidence of connections between the first and second reflections and that there was no evidence that the students used any of the feedback I provided to help them grow as reflective practitioners. For feedback to be formative, there is a requirement that a student receive and then use the feedback to build upon previous knowledge (Hattie & Timperley, 2007). It is clear that (a) even though I emphasized self-regulated learning and growth when introducing the task and (b) in most cases I tried to provide feedback on how the experiences of the first week might be extended, the reflection task and its accompanying assessment instrument were internalized by students as independent summative assessments.

In this study I was examining the use of instructor written feedback as a strategy for promoting self-regulation. Re-reading my feedback, I noted that my focus was on the quality of the students’ nursing practice, such as “You are so genuine and caring, and your patients both know and feel that” (S08Ref2). Often I was affirming, assuring students that their reflections
had relevance for professional nursing practice, such as “Other understandings you identified include the uniqueness of each individual, challenges in communication with those who are not verbal, feeling good about providing care and feeling appreciated, gaining confidence, and considering the patient’s perspectives” (S06Ref1) There were occasions when I asked a question to provoke further thinking.

Maintaining human dignity, respect, and privacy is important and you have well described this situation from the perspective of the patient, yourself, and another student. Did you have a chance to talk about the situation with the other student after, privately? Sometimes we need to debrief and in these short talks with colleagues, come to new understandings, or even realize that both people felt the same. I especially liked how you involved the patient in how to move her leg so that she would be more comfortable. What better person to ask than the patient? (S07Ref1)

Student reflections were a window through which I could view and begin to understand their beginning nursing practice. The reflections did inform me about an episode in the student’s practice and provided some insight into how I might facilitate progression of their developing competence. However, the assignment left me feeling that the contributions I was able to make to students’ professional growth and self-regulation had been severely limited. I was certainly able to give them feedback on their nursing skills, but given that I was not able to hold a student/instructor conference after my feedback on their first reflection, I had no way of knowing how my comments had been interpreted or how I might have been able to help them better understand their own learning process. It is also evident that the rubric conveyed no expectation that the second reflection should build on what students had learned about themselves the previous week. Specifically, there was no encouragement or reward for students to use the reflection task as a way to better understand a dilemma and how best to learn from it. While I chose to provide a second set of comments there was no indication that these contributed anything but a rationale for the grade I assigned.
Reflective practice is espoused as a process that can promote professional thinking in students, one that builds their capacity for knowing-in-action (Schön, 1983). For these students, the primary value of the reflective tasks was probably to provide me with evidence that I could incorporate into their overall clinical performance evaluations. I was reminded of how one instructor in Chapter 4 had told me that these assignments were very important in helping her know how and what each student was thinking. If the intention of the curriculum developers in requiring these reflective tasks was solely to have students report and get feedback on the quality of their nursing practice, then I had misread the intention.

**Discussion**

On the surface, the reflections my students submitted did provide evidence that the students could make decisions about how to advance their learning and improve their performance, which are the goals of self-regulation. In this clinical instruction context, however, there were only unique and modest examples of this happening. When these characteristics of self-regulated learning did appear, I found that I was unable to build on them using the required curriculum assignments and assessment tools. My efforts to have students evaluate their performance against the criteria of professional practice, reflect on their performance, and then make decisions about next steps in their learning were probably minimized by several conditions. I discuss these below.

**Instructor Experience**

This was the first time I implemented the curriculum at this institution, and I was reluctant to modify or adapt any of the learning objectives or required assignments. Scoring the student reflections with the suggested rubric was not difficult. The criteria were broad enough that all students could address them. As a result, everyone achieved high scores, and students
received similar (high) scores on both reflection assignments. This was the case even though I detected significant differences in the quality of students’ reflections. The scores I assigned students on the FRAME criteria were based only on the criteria provided in each cell. If the purpose of reflection was to develop thinking skills in clinical practice, then the reflective activity may have accomplished its purpose. My interest in promoting professional learning and using formative assessment as a way to support self-regulated learning compelled me to add written constructive feedback and/or highlight text in each of the assignments. This appears not to have been enough to transform the rubric into a learning tool. If it were to be useful as a learning tool, both the rubric and the way the rubric is used by students would have to be transformed.

**Number and Timing of Reflections**

In my previous experiences as a clinical instructor, I had provided written feedback on all submitted assignments. Reflections had been part of the clinical course but had not been assigned marks. I had looked forward to reading and commenting on student reflections. They were an opportunity to acknowledge, affirm, and sometimes correct beginning practice; to remind students of their journey and relevant success criteria along the way; and to offer thoughts or suggestions on how they might reach the goal.

In the present clinical instruction context, students were only required to produce two reflections. These were submitted one week apart. Given the complexity of becoming more independent and self-reliant as a learner, more time and more feedback is likely to be needed to establish reflective practice. Time allows students to better identify what they need to learn, while feedback helps students to close the gap between what they know and what they need to know (Hattie & Timperley, 2007). One learning strategy, then, could be to initiate a learning log
to document a continuous reflective journey of learning. Instructor feedback could help to highlight significant milestones in learning as well as patterns of growth not possible over two entries. Giles, Gilbert, and McNeill (2014) recommend that one way to promote professional in nursing students is to have them, not just their instructor, engage in the feedback process. This could be accomplished by requiring students to reflect on and respond to both peer and instructor feedback. This form of student feedback may also address the learning needs of an instructor as she/he works to build a learning environment for both professional growth and achievement.

The Focus of My Feedback

My intention was to provide comments that would help students better understand their learning needs and help them to make their own decisions on how to address those needs. While I can argue that my comments were sufficient to contribute to student knowledge, understanding, and future actions (Giles, Gilbert, & McNeill, 2014), they may not have been presented in ways that would stimulate students’ efforts to be self-regulating. Some questions I posed in writing may have been better asked in person. Using questions to initiate a conversation with a student may have helped both of us to focus on the student’s learning process. I also missed opportunities to ask permission to use some of the situations described by students as starting points for a continuing discussion about self-regulated professional practice. These assessment practices align well with Koh’s (2008) description of feedback as a dialogue that provides an opportunity for students to engage with the instructor and their peers about the meaning of feedback.

Alignment of Curriculum Expectations, Learning Tasks, and Assessment Instruments

Whether the authors of the curriculum intended for the required reflective exercises to be used to promote self-regulation is still a question. My reading of the curriculum intentions,
especially the first one, suggested they did. I felt reflection was the ideal learning task for students to “demonstrate application of nursing science through critical inquiry, commitment to life-long learning and evidence-based practice” (School of Nursing, 2014, p. 5). In communicating the intentions of the curriculum, however, the course professor indicated my responsibilities for marking and labeled the reflective exercises and student post-conference presentations as “assignments” (Appendix K). None of these assignments were directly linked to one or more of the curriculum expectations. In retrospect, this made it difficult for me and for my students to determine how the assignments were meant to address the learning expectations of the curriculum. The assessment rubric explicitly identified success criteria and achievement levels for each element of FRAME (focus, reflect, assess, make meaning, and explore) however the overall learning intention was ambiguous.

In this case, it can be argued that the grading scheme associated with the rubric established the rubric as a summative assessment tool only.

In any area of the curriculum where a grade or score assigned by a teacher constitutes a one-way cipher for students, attention is diverted away from fundamental judgments and the criteria for making them. A grade therefore may actually be counterproductive for formative purposes. (Sadler, 1989, p. 121).

Had grades not been attached to the first submission, I would have had an opportunity to discuss with my students, in more depth, what constituted a strong reflection. This discussion could have revealed features of self-regulated learning. With one or more exemplars in hand, I could have built into the discussion opportunities for students to self and peer assess the extent to which their work satisfied the FRAME criteria. These assessment activities could have served as additional learning tasks for students. Subsequently, the rubric could have acted as a tool to help students monitor the quality of their second reflection as they were writing it. When a rubric
helps students develop strategies for improving their work it is serving as a powerful learning guide.

**Conclusions**

Students are commonly asked to submit anecdotal notes or reflection assignments in clinical nursing curricula. These offer an opportunity for clinical instructors to hear students discuss their professional learning. The learning most likely to be shared in this context will center on the acquisition of nursing skills. In the present study, two required reflections and the efforts of an instructor willing to provide feedback on those reflections were not enough to sufficiently support students along a path of self-regulated learning.

If curriculum developers value self-regulated learning, then the presence of an explicit curriculum expectation would draw attention to this. It would also enable a planning process that could align the expectation with appropriate learning tasks, assessment purposes, and assessment instruments. Such a process would clarify for both instructors and students their roles and responsibilities with regard to self-regulated learning. If students were afforded the time and the quality of feedback required for self-awareness as a learner to develop, then a rubric designed to guide the development of professional self-regulation would be useful. Such a rubric could provide students and their instructor with a recognizable trajectory for growth in each of the rubric’s elements.

As I continue my own journey of professional learning through self-study, I am once again confronted with new questions for inquiry: What is the optimal way to introduce and support reflection as a learning strategy in support of self-regulation for beginning nurses? What might a growth rubric for professional self-regulated learning look like? In pursuing these questions, I see myself optimizing even more the potential of formative assessment as a
mechanism for professional growth and achievement.
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Chapter 7: Becoming Conscious of the Acquisition of Knowledge

My decision to enter a PhD program was based on a desire to improve my instructional practices and contribute new knowledge to teaching scholarship in the nursing profession. The purpose of this thesis was to

(a) examine the processes and outcomes related to the use of self-study as a method of continuous professional learning (CPL) in clinical nursing education,

(b) contribute new understandings to the knowledge bases that currently shape self-study and formative assessment, and

(c) offer insights to other clinical instructors who may be interested either in adopting self-study as an approach to CPL or in integrating formative assessment as one strategy in support of student self-regulated learning.

I chose to engage in self-study for two reasons. First, it appeared to be an ideal professional learning strategy by which to advance my expertise as a clinical instructor both in conducting formative assessment and in supporting independent student learning. In addition, I hoped that by documenting my process of self-study and the outcomes that resulted, other clinical instructors might recognize some value in either adopting self-study as an approach to CPL or integrating formative assessment into their own practices.

In this chapter I use current literature and the processes and outcomes of my research to discuss these goals. This discussion has four themes: self-study as CPL, the embedded nature of formative assessment, supporting self-regulated learning in nursing students, and implications for knowledge utilization in nursing education.

Within each theme, what I have learned is synthesized and offered as insight for other instructors who may have learning needs similar to mine. Together these three themes highlight
some of the complexity inherent in nursing education and the roles and responsibilities of the clinical instructor.

**Self-Study as Continuous Professional Learning**

**The Challenge of Improving Clinical Instruction**

Nursing education is complex. It incorporates two professions (nursing and education; Booth, Emerson, Hackney, & Souter, 2016) and two modes of teaching and learning (theory and clinical practice), and it requires students and their instructors to draw on a variety of pedagogical and clinical competencies on the basis of emergent contexts or practice. Around the world students learn to become nurses in clinical placements that are taught predominantly by part-time clinical nurse instructors (Davidson & Rourke, 2012). Although instruction in placements is recognized as a pillar of nursing programs (Dahlke, O’Connor, Hannesson, & Cheetham, 2016), the preparation that clinical instructors receive for the challenges they will face is often considered to be inadequate. It is understandable that for optimal supervision of students’ application of theory in clinical settings and for the safety of clients who are recipients of students’ care, clinical instructors must be expert nurses. While demonstrated expertise in nursing is essential, clinical instructors’ expertise in pedagogy (the methods and practices of teaching and learning) is rarely scrutinized (Booth et al., 2016). Suplee, Gardner, and Jerome-D’Emilia (2014) identified gaps in instructors’ management of student learning and weaknesses in their instructional strategies. They specifically targeted clinical instructors’ deficiencies in the practices of assessment and evaluation, the very practices that were at the heart of my CPL.

This problem is how an experienced clinician might also become an effective instructor. As a nurse who was active in clinical practice, who was educated as a teacher, and who had access to research literature in nursing education, I found little guidance at the beginning of my
PhD program on how to think about or improve clinical instruction in nursing. University research teams in the health sciences and education have begun taking an interest in the complexity of this subject. Zakari, Hamadii, and Salem (2014), for example, studied one nursing college’s efforts to train clinical instructors with the focus on strategies similar to mine: planning, implementation, feedback loops, and reflection. Instructors employed full-time by a university-affiliated organization have access to a community of practice, as do instructors like me who are engaged in graduate education. However, if contracted clinical instructors wanted to conduct a systematic inquiry into current research and what it might mean for their own practice they would have to call on resources of time and expertise that are currently outside the scope of their positions.

If I had chosen not to pursue a PhD, another option would have been to become a certified nurse educator through the Canadian Nurse Educator Institute (http://cne-icie.casn.ca/). This institute offers a three-module online program followed by a certifying examination. One module identifies a required competency of being able to “implement learner-focused formative and summative evaluation strategies” (Canadian Nurse Educator Institute). However, given the examination is also online, it was unlikely that I would have finished the program with evidence of this practical skill.

These kinds of learning modules or programs are typically described within the nursing profession as self-study (Brookes, 1991). While they are certainly a useful option for nurses with little or no background in clinical instruction, investing in coursework in addition to preparing for teaching and learning may feel onerous, even if such courses are seen as one way to formally document evidence of CPL. For clinical instructors who have identified specific questions
around their own practices and want to better understand the influence of their practices on
students, such programs are not likely to be appealing.

**Implementing Inquiry-Based Self-Study**

While I was able to familiarize myself with notions of self-study as described in the
education literature, it is unlikely that many of my colleagues have first-hand experience with
this form of professional learning. For this reason, I summarized the required elements of CPL in
my first self-study (Chapter 4). My motivation for using self-study as a strategy for professional
learning was to improve my practice of formative assessment. The primary source of evidence
about how well I was learning this practice came from my students. For this reason, those
embarking on self-study must be keen observers who are willing and able to identify, record, and
reflect on the consequences of their actions. I was able to conduct a systematic analysis of these
observations and reflections because I recorded them in a disciplined and structured way. The
role of journal writing in the self-study process cannot be underestimated. It continues to be a
primary tool in support of reflective practice leading to professional growth (Johns, 1998; Schön,
1987). Chapter 4 and Chapter 6 provide examples of how I chose to organize entries, deliberate
on their meanings, and use these reflections to craft new understandings and ideas on how I
might continue to learn.

**The call for a critical friend.**

A critical friend, as the name suggests, is a trusted person who asks provocative
questions, provides data to be examined through another lens, and offers critique of a
person’s work as a friend. A critical friend takes the time to fully understand the context
of the work presented and the outcomes that the person or group is working toward. The
friend is an advocate for the success of that work. (Costa & Kallick, 1993)

A decade ago a critical friend was deemed to be an essential element of self-study
(Schuck & Russell, 2005). In newer deliberations around effective self-study, the requirement for
a designated critical friend is changing. Instead of focusing on how another person can be
engaged in the self-study, the emphasis now is on ensuring there is opportunity for those
conducting the self-study to receive critique of their behaviours and meaning-making processes.
When that critique comes in the form of conversation, it should be similar to the dialogic and
dialectic conversation recommended in effective duoethnography (Norris, Sawyer, & Lund,
2012; Woods & Sebok, 2016). How many conversations need to occur and who the others are
will need to vary depending on the context for the study.

Jones (2015) reported the use of different critical friends who carried out different
functions, such as organizing data, reporting observations, and analyzing data. Drake (2016) did
not use the term critical friend in his self-study as a teacher educator. He advocated for
systematic journaling and “in-the-moment coaching” (p. 244). In a recent self-study in Chinese
language teaching, Chen (2016) used rigorous documentation of knowledge construction, and
knowledge sharing in the absence of a critical friend. This last option appears to require another
layer of reflection to be successful. Reflection on feedback from teachers and students followed
reflection on tensions that emerged from implementing a quality teaching model in the
classroom.

During my self-studies, I worked without a natural professional support group. The
sources for effective critique were thus spread across a number of resources. Dialogue with
others took the form of formal interviews with instructors and students (see Chapter 5). While I
had no single critical friend, my proposed learning process was reviewed by members of five
post-secondary ethical review boards as well as members of my doctoral committee and one
outside examiner of my proposal. As a group, these students, practitioners, and academics
offered alternative viewpoints, providing me with opportunities for a more in-depth “coming-to-
know” (Hamilton & Pinnegar, 2015, p. 181) about my study design, analysis of data, and interpretation of the findings. It was an advantage to have critique from scholars in education. Our dialogic and dialectic conversations were continuous over the course of the three studies, perhaps more than would have been the case if I had collaborated with a critical friend as defined in the early self-study literature.

In reflecting on my three years of self-study, I would argue that what made my interactions with my committee especially effective was not friendship but mentorship. I have come to realize that to engage in self-study effectively one has to be willing to be mentored. Mentorship can be found within a community of practice, but in the absence of a natural community of practice I would urge clinical instructors interested in self-study to seek out the support of one or more individuals whom they trust to have expertise in addressing context-specific issues of both nursing practice and nursing education. I would argue that it is equally important, however, to recruit a mentor with a genuine interest in you and your learning as a professional. In this way, the conversations are less likely to be about the right way to proceed and more likely to be about the best way for you to proceed given your time-sensitive needs and strengths.

**Self-Study as a Trustworthy Approach to Professional Learning**

Vanassche and Kelchtermans (2015) identify three key characteristics of self-study: its focus on one’s practice, its collaborative interactions, and the importance of trustworthiness. While evidence of new practices and quality interactions is relatively easy to document and report on, it is more challenging to argue that the resulting learning is valuable and trustworthy. Clinical instructors who adopt a self-study approach to CPL are unlikely to do as I did, namely, “write up” their self-study processes and findings for review and critique. Instead, they are more
likely to want to follow their initial learning by addressing a new question worthy of immediate attention. The ultimate evidence of whether a clinical instructor has used self-study as a high-quality form of CPL will be found in the behaviours of his or her nursing students. For this reason, tools that help clinical instructors to track student growth become as important as those used to collect reflections or information about student achievement. The third self-study (Chapter 6) offers some insights into how reflective assignments might be used to help clinical instructors monitor the influence of their teaching on student learning and practice.

**The Embedded Nature of Formative Assessment**

**Remembering the Purpose of Formative Assessment**

The purpose of formative assessment, as it was initially described for use in school classrooms, was “… to provide feedback and correctives at each stage in the teaching-learning process” (Bloom 1969, p. 48) and to advance students’ skill acquisition along a novice-to-expert continuum (Dreyfus & Dreyfus, 1980). In nursing education, skills are developed in two contexts: the laboratory and the practicum. In the lab, the focus of instruction is to support students’ growth towards the competent performance of clinical skills as identified by the curriculum. In the practicum, the task is more challenging because it requires students to determine what skills to perform given the context of care. Additionally, the provision of nursing care to patients demands more expert performance. In practicum, “the primary role of clinical faculty is to guide and coach students toward a greater understanding and sense of professional responsibility for the underdetermined practice of nursing” (McNiesh, Benner, & Chesla, 2011, p. 60).

Formative assessment strategies that promote student learning and elicit evidence of a learning progression are thus suited to supporting the work of clinical instructors. In my first
self-study (Chapter 4) I focused on the systematic implementation of formative assessment strategies as suggested by Black and Wiliam (2009) and interpreted for classroom teachers by Wiliam (2011). My first challenge was to see how I might interpret and then use these strategies. This proved to be doable because the strategies themselves are stated in terms that were easy for me to understand. Each strategy statement is also accompanied by an explicit assignment of instructor and student responsibilities. I had to remember, however, that “doing” formative assessment as an instructor was only my first step. My real challenge was to determine whether my efforts at formative assessment were serving their intended purpose, namely, promoting effective student learning and achievement. This is where using self-study as a method for my own professional learning was so useful. By recording systematic reflections of both my actions and the responses of students, I was better able to track the ways and the extent to which students were actually benefitting from my actions, if at all. Looking at these reflections over time allowed me to adapt my practices and as a consequence keep the focus on student learning. As clinical instructors come under more and more pressure to practice formative assessment, they will need support to focus not only on their own practices but also on the intended purpose for such practices and the consequences for students.

**Embedding Formative Assessment into Planning and Instructional Practice**

A special edition of the journal *Applied Measurement* (2008) examines the relationship between formative assessment and curriculum by considering formative assessment as an instructional practice intended to promote learning. Although formative assessment is commonly discussed and possibly used in nursing education, *embedded formative assessment* is a better term to describe how I came to think about and understand the value of formative assessment. Embedding formative assessment in lessons is an approach taken by curriculum developers and
assessment specialists to improve teaching and to promote student learning (Ayala et al., 2008).

Saunders (2003) reported that to help instructors and students concentrate on educational goals, lesson plans should include objectives, a content outline, a timeframe, and strategies for teaching and evaluation. At the time of Saunders’ study, evaluation was typically interpreted as the act of collecting information to make judgments about achievement of expected outcomes, (e.g., clinical nursing performance evaluations). Today, quality evaluation is based on effective assessment practices. Such practices involve collecting information about student behaviours as they strive towards the expected standards for performance. I began my self-study very aware of my evaluation responsibilities, as most instructors are. In both the lab and practicum contexts, I would need to determine the extent to which each of my students achieved the expected curriculum outcomes/objectives. I also knew that formative assessment was intended to be an “ungraded assessment that carries meaningful information as an educational tool to aid students’ learning” (Al Kadri et al., 2011, p. 45). My challenge was to learn how to make formative assessment a priority in my thinking and practice and trust that quality evaluation would follow.

I began this task by analyzing each course outline that was provided to me and imagining how to plan my teaching to incorporate the five formative assessment strategies of Black and Wiliam (2009). My goal was to embed the use of these strategies, allowing them to become the foundation for how I designed learning activities and operationalized experiences in practicum.

I learned that in my teaching, the five strategies contributed in different ways in the simulation and practicum contexts but were applicable in both of these settings. For example, in planning for both contexts I had to consider how to introduce the learning and then how to pose questions, raise issues, and assign tasks in ways that would help students begin to take more responsibility for both their own learning and the learning of their peers. Having this as a focus
for planning was quite different than the direct instruction approach that I was more familiar with. Direct instruction is an explicit teacher-directed approach to learning where the teacher sequences the learning of a skill in a logical manner. That logic can be based on either a formal analysis of the skill or the instructor’s own experience of learning the skill. It is a very popular approach to skill development, in part because it appears to allow instructors and students to “do more in less time” (University of Kansas, para 3). When the focus is on direct instruction, formative assessment can be seen as an additional responsibility to teaching.

My decision to embed formative assessment activities into lessons as the actual strategies for teaching and learning changed my focus as an instructor. Rather than making decisions about how I was going to cover the curriculum, I learned to emphasize activities that encouraged students to work in ways that allowed them to receive, give, and use feedback about their own learning processes and products as a way to move toward the required competency. In this way, I was able to share instructional responsibilities with my students and allow them to identify and articulate gaps in their own learning. This was a way for me to encourage them to think about their learning in a way that was more consistent with what a practicing nurse needs to do.

My first efforts to embed formative assessment strategies into my planning for learning occurred in the clinical nursing education context (Chapter 4). I identified the responsibilities of an instructor, students, and student peers in formative assessment and provided examples of how I encouraged students’ acceptance of these responsibilities. A summary of how I did this is shown in Table 1. This table serves as a guide, albeit only one way, for clinical instructors interested in embedding formative assessment strategies into lesson planning.
Table 1  
Formative Assessment Strategies Applied in Clinical Nursing Instruction

<table>
<thead>
<tr>
<th>Formative assessment strategy (1–5)</th>
<th>Application in clinical nursing instruction</th>
</tr>
</thead>
</table>
| **Strategy 1**  
Clarifying, understanding, and sharing learning intentions and criteria for success.     | • reviewing with students the course outline  
• discussing evaluation criteria  
• providing procedural skill checklists for practicing skills  
• reviewing with students the evaluation of clinical performance                                                                                                                                 |
| **Strategy 2**  
Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding. | • pairing students for learning clinical skills to facilitate peer feedback during practice  
• instructing students in using procedural lists or checklists for self and peer assessment  
• circulating in the simulation lab, giving feedback to promote improvement in student clinical skill performance during practice  
• implementing additional practice of clinical skills in a clinical practicum post-conference to assess technique and build student confidence |
| **Strategy 3**  
Providing feedback that moves learning forward.                                                | • debriefing a role play scenario to consider other actions that might support patient safety  
• incorporating clinical examples from the instructor’s nursing experience in feedback to students to make theory-to-practice connections  
• asking questions such as, What did you think? How did you feel? to prompt further student thinking |
| **Strategy 4**  
Activating students as instructional resources for one another.                                | • encouraging one student who used the textbook as a reference resource for monitoring another student’s performance of a skill  
• asking a student who had performed a skill successfully to demonstrate this skill to a peer  
• supporting students who offer assistance to other students  
• pairing students in one clinical practicum location and assigning a task that requires them to collaborate, e.g., seek and find activity during orientation |
| **Strategy 5**  
Activating students as owners of their own learning.                                              | • disseminating resources to support students’ practice of skills outside of practicum or classroom hours, e.g., injection kit  
• sharing information about the purpose and use of written feedback on anecdotal notes and reflection assignments  
• instructing practicum students to identify additional opportunities for performing skills in their assigned practicum site  
• reviewing and discussing requirements for students’ submission of a nursing care plan for each assigned client, and for providing written and oral feedback for revising the plan |

I consistently used a review of learning objectives and success criteria as a lesson opener, which was a strategy that I found easy to integrate. While some learning tasks can be planned to elicit evidence of students’ understanding, understandings evolve in clinical practicum.

Discussions, clarification, and feedback are often spontaneous. Pedagogic questioning (Heritage
& Heritage, 2013) was a strategy I used to promote and monitor students’ use of feedback in clinical education. Pedagogic questioning is an instructor-student interaction effective for eliciting information about the quality of student learning. My questioning generated assessment data about a student’s knowledge and performance at that time. Student responses supported my decision making about next steps in instruction. The clinical context provides a unique opportunity for students to use the feedback immediately while they are being monitored by their clinical instructor and peers. Instructors must adapt to conditions for learning and progressions of learning in both clinical contexts.

By engaging in self-study as a method of CPL and focusing on my interest in formative assessment, I have translated what was being discussed about the use of formative assessment in the education literature into the context of nursing education. I have made the argument that it is useful to think about my efforts as the implementation of embedded formative assessment. By using this framework as a guide for planning and implementing teaching and learning I was able to become a better clinical instructor and felt more competent in helping my students move forward using the skills and the thinking required of a professional nurse.

**Supporting Self-Regulated Learning in Nursing Students**

**Establishing Expectations**

Watching students respond to my efforts at embedding formative assessment into my teaching taught me how important it was for me to establish, with them, a common understanding of the required learning expectations and the criteria I would be using to judge their success. By making these explicit, we developed a shared understanding of what we were all trying to accomplish. This allowed me to make better decisions about how best to move my students’ learning forward. It also helped my students to monitor their progress towards these
goals and make decisions about their next steps in learning. Clear expectations set the stage for quality feedback (Ramaprasad, 1983) from multiple sources (instructor, peer, self, other stakeholders). Quality feedback can be either positive or negative information about progression in learning based on evidence of student thinking and performance (Plakht, Shiyovich, Nusbaum, & Raizer, 2013). Over time, I became aware that the power of quality feedback is its potential to help students take on more responsibility for their learning. In practice, it became much harder for students to attribute the quality of their learning (strong or weak) only to what I was doing. Explicitly stating success criteria at the outset of a course or lab also addressed another issue raised by students in this research: many expressed the concern that the final evaluation of their performance often felt unsystematic and overly subjective (see Chapter 5). My experiences confirmed the argument of Skúladóttir & Svavarssdóttir (2016) that clear learning expectations and success criteria facilitate more objective, or at least transparent judgments about students’ ultimate achievement.

**Helping Students Move Their Learning Forward**

I found three formative assessment strategies to be particularly useful in helping students to move their learning forward: providing feedback, activating students as instructional resources for one another, and activating students as owners of their own learning (Wiliam, 2011). Early in my self-study, my focus was on how I might give quality feedback. What information should I be collecting and communicating to guide students’ learning? This required that I develop the skill of observing the different ways learning could progress and the kinds of information or experiences that might be useful in promoting learning for the individual and the group.

My primary strategy for activating students as instructional resources for each other was to plan learning activities that required students to collaborate on a problem or task. Introducing
each activity, I discussed expectations for participation and for giving constructive feedback. Giving and receiving feedback during these activities provided opportunities for collaborative knowledge building (Hmelo-Silver & Barrows, 2008). Maybe most importantly, it enabled students to learn more independently of me.

I also required students to reflect on their own practices and their progression towards the success criteria. Goulet, Larue, and Alderson (2016) describe reflective practice as a teaching and learning strategy to guide and promote education and the development of nursing students as professionals. Reflection on practice helps students to make connections between theory in the lab and practice in practicum, increase their self-awareness of their learning needs, and give attention to what needs improvement (Calleja, Harvey, Fox, & Carmichael, 2016). Having students revisit what, how, and why they had been able to learn in one context (see Chapter 5) seemed to equip them for the adaptations to practice they would need to make in subsequent clinical contexts. Reflection on learning and action in clinical practice is realistic preparation for a self-regulated professional practice.

The challenge of activating students as owners of their own learning was one that could easily fuel a new self-study. How do I help students assimilate feedback from me, from each other, or from their own experiences so that they are able to make decisions about their next steps in learning? To be considered formative, feedback must be used to make decisions to advance learning (Black & Wiliam, 1998). One strategy I used to help students learn to use feedback was to require them to make a decision about “next steps” on the basis of their understanding of what the feedback meant and then to report on the consequences of that decision. In advance of all medication administration in practicum (Chapter 4), I met with each student to discuss their knowledge of the drug including its action, side effects, and other safe
medication administration practices. If the student’s preparation was incomplete, in my feedback I indicated what was missing. To proceed to the step of administering medication with supervision, I required the student to identify a resource and collect the missing information.

Overall, I discovered that regardless of the source of feedback (instructor, peer, student, patient, or staff) and whether the feedback was positive or negative, two factors influenced its usefulness for moving learning forward. The first was how the student understood the feedback. The feedback was most useful when the student could see how paying attention to it would enable them to meet or surpass the success criteria. The second factor was students’ motivation to learn combined with their capacity to recognize how their behaviours were (or were not) moving them towards the desired learning goals. Students’ success in using self-regulated learning strategies (Mullen, 2007) is known to contribute to their effective use of feedback and to feed learning forward. This suggests the need for direct instruction in the skills of self-regulation.

Examining learners’ development of self-regulated learning skills is beyond the scope of this research, but it merits the attention of curriculum developers. Nursing, it should be noted, is a self-regulated profession.

**Formative Assessment and Self-Regulated Learning as Elements of Curriculum Design**

Integrating formative assessment strategies as a set proved to be an effective way for me to assess my students’ progression in learning while monitoring their clinical performance. The synergistic effect of five strategies buttressed my effectiveness in teaching my students how to regulate their learning and how to be instructional resources for each other. Although an instructor has responsibility for creating the specific learning activities that best support self-regulated learning (Zimmerman & Schunk, 2011), attainment of this goal also has implications for curriculum developers. For example, in one context where I worked, the curriculum
mandated that participation in each clinical skills lab was dependent upon students successfully demonstrating their knowledge of designated readings as measured by a short but targeted pre-test. Because the pre-test was designated as an element of the curriculum, students could not interpret the readings as optional or recommended. Instead, it was very clear that the ideas embedded in the readings were required for skill development.

Chapter 6, in part, tells the story of how the curriculum mandated that students and their instructor use a reflection rubric as a way to judge the students’ growing skill in being able to learn from experience. In theory, this specific curriculum element was intended to help students to self-regulate their behaviours and monitor their growth towards successful achievement of the curricular expectation of reflective practice. In action, the rubric was not designed as a learning tool. Labeling the different levels of achievement “excellent, “satisfactory,” and “unsatisfactory” and assigning marks to each of these levels did not communicate the curriculum intention effectively. This is a strong example of how curriculum, instruction, and assessment must be designed to work together if students are going to trust that instructors are as interested in their learning as they are in their achievement. Curricula intended to promote students’ self-regulation of learning need to include assessment tools that have the potential to support this goal. This is likely to be especially important for novice clinical instructors who are better prepared to enact than to design the frameworks for teaching and learning (Lim, Son, & Kim, 2016).

Over the course of my three-year self-study my improving efforts to implement the five formative assessment strategies enabled me and my students to identify gaps in understandings both at the individual and group level. Reflection on practice (Andersen, 2016; Goulet, Larue, & Alderson, 2016) and quality positive and critical feedback (Plakht, Shiyovich, Nusbaum, & Raizer, 2013) supported our collaborative discussions and decision making on the appropriate
actions to address these gaps. Learning to regulate one’s learning is a known contributor to student success in nursing education (Mullen, 2007). Design of the curriculum and assessment in support of self-regulated learning strategies is critical to equipping students to attain and maintain competency in nursing practice.

**Implications for Knowledge Utilization in Nursing Education**

Thomas and Bussieres (2016) identified three processes that contribute to knowledge utilization that are particularly appropriate to my work: “diffusion (raising awareness), dissemination (use of knowledge), and implementation science (theories and methods that underpin (knowledge translation)” (p. e-20). I attended to the knowledge translation process by transforming well-established theories of self-study and formative assessment into practical examples of how to engage in CPL and embed formative assessment into clinical nursing education. Documenting the intentional activities of planning, implementing, assessing, and reflecting supported my continuous development as an instructor and enabled me to adjust my teaching to intentionally promote students’ learning. In learning about how these strategies supported teaching and learning in my own clinical practice I was able to document how my efforts to improve my clinical practice were supported by good theory. This form of knowledge translation (at an individual level), while powerful for me as a clinical instructor, does not satisfy my intention as a scholar to add knowledge to the field of nursing education. For this reason, it is critical that I consider the implications of my work and reach out to others who want to improve nursing education. This includes targeting clinical instructors who, like me, may work outside of established communities of practice (Morley, 2016).
Diffusion and Dissemination of My Processes and Findings

My goal is to edit the three studies found in Chapters 4, 5, and 6 into manuscripts suitable for peer-reviewed, open access nursing education and self-study journals. Open access journals are those that allow internet users the opportunity to investigate topics of interest without the requirement of having university or publisher authorization or permission. These types of journals have greater potential to reach nursing instructors who are without a community of practice and who may use the internet as their primary source for professional learning. Rich descriptions of self-study and assessment strategies in action can support instructors looking for practical examples of strategies that can improve teaching and learning or support their CPL. By focusing on making my work readily accessible I am attending to the diffusion and dissemination elements of knowledge utilization.

In addition, it will be important for me to present papers and posters on self-study and the potential of embedded formative assessment at targeted national and international conferences such as the American Educational Research Association, which has self-study and health professions interest groups. Communicating my learning processes and findings and following through to use in this way is a method of diffusion. Diffusion is a social process (Rogers, 2003).

Connecting with nursing educators with similar interests and initiating an exchange of ideas around the challenges faced by clinical instructors and curriculum developers have the potential to promote ongoing discussions and the transferability and adaptation of my processes and findings.

Curriculum Renewal as Knowledge Utilization

Thomas and Bussieres (2016) also discussed how knowledge utilization can be supported through implementation science. Briefly stated, implementation science is a scientific process for
examining contributors and barriers to the implementation of evidence-based research in practice. By targeting curriculum developers as an audience for my work, I am suggesting they have a key role to play in determining the importance and potential uses of my work. Currently, I am only able to influence this form of use indirectly through my efforts at dissemination and diffusion. However, I continue to seek full-time employment within a university school of nursing. When successful, I will be in a better position to participate or even lead discussions around curriculum renewal. I will argue that explicitly embedding formative assessment into the design of curriculum components, including rubrics and clinical evaluations, can serve a dual purpose; that is, (a) promoting students’ abilities to learn how to learn and (b) preparing students for self-regulated professional practice. This work may involve revising terminology in course documents to consistently and explicitly state learning intentions and success criteria; developing activities and tasks that elicit evidence of student learning and incorporate opportunities for generating constructive feedback from multiple sources; and assigning accountability for learning to the students. In embedding formative assessment strategies into nursing education curriculum, care would need to be taken to support the work of an instructor without limiting their ability to plan and implement teaching and learning in ways that are most appropriate for their specific students and learning contexts.

**Conclusions**

Teaching and learning are developmental processes (Lim, Son, & Kim, 2016). By permitting me to revisit the role of the learner, self-study supported my development as an instructor with nursing students. In “resurfacing the unconscious to the conscious” (J. Medves, personal communication, March 3, 2017), I was able to monitor my expertise and my depth of understanding in clinical instruction. Making the learning process conscious and adopting the
behaviours of a lifelong learner (Davis, Taylor, & Reyes, 2013) supported my efforts to take these same steps with my students, guiding them in moving from “unconscious incompetence to unconscious competence” (Higginson & Hicks, 2006) as they come to know the practice of nursing.

Self-study is an effective and disciplined approach for professional learning aligned with an individual’s professional interests. The three connected studies presented in this thesis are practical examples of how self-studies can build on each other to promote deeper learning. Implementing five formative assessment strategies as an innovative teaching strategy (Phillips & Vinten, 2010) has potential for promoting more independent regulation of learning in nursing students. Adopting the term *embedded formative assessment* and embedding the strategies in clinical nursing education has potential for integrating the activities of instruction, assessment, and evaluation into a skill called teaching. Clarke and Erickson (2004) identified self-study as a fundamental element of the construction of understanding and knowledge about teaching practice. In this self-study research, I learned how my own behaviours contribute to my ability to achieve my pedagogical goals. Learning to reflect on one’s practice, through reflection assignments or self-study of one’s practice, is a skill that can be taught (Russell, 2005) and should be taught to nursing students who are preparing for self-regulated professional practice. In analyzing my three self-studies I have made the case that self-study is a useful and disciplined way for clinical instructors to control the timing, pace, and focus of their own CPL. I also have argued that self-study is a powerful strategy for gaining insights into the complexity of clinical instruction and that studies such as these, as a set, can contribute to a broader understanding of nursing education.
References


# Appendix A: Research Ethics Approvals (Study One, Two, and Three)

| Queen’s University Graduate Research Ethics Board | GEDUC-615-12  
ROME File# 6006911  
Examining the Potential of Embedded Formative Assessment in Promoting Clinical Learning |
|---|---|
|  | GEDUC-656-13  
TRAQ File# 6007688  
Embedded Formative Assessment: Promoting Professional Learning in Nursing Education |
|  | GEDUC-733-14  
TRAQ File# 6012855  
Professional Learning: Self-Study of Embedded Formative Assessment in Nursing Education |
| University Site A | Social Sciences and Humanities REB  
File Number 02-13-37  
Approval Date 04/03/2013 |
| University Site B | Research Ethics Board  
Certificate of approval for Embedded Formative Assessment: Promoting Professional Learning in Nursing Education  
Date April 3, 2013. Valid for one year. |
Appendix B: Ethics Approval Queen’s University Study One

Email May 11, 2012

May 11, 2012

Ms. Judy Woods
Ph.D. Candidate
Faculty of Education
Duncan McArthur Hall
Queen's University

Dear Ms. Woods,

Please find attached the Delegated Review Clearance Letter for your study entitled: "GEDUC-615-12 Examining the Potential of Embedded Formative Assessment in Promoting Clinical Learning"; Ethics ROMEO # 6006911. Good luck with your research.

Regards,

Gail Irving
Ethics Coordinator, GREB
Office of Research Services
May 11, 2012

Ms. Judy Woods, Ph.D. Candidate
Faculty of Education, Duncan McArthur Hall
Queen's University
211 Union Street
Kingston, ON K7M 5R7

GREB Ref #: GEDUC-615-12; Romeo # 6006911
Title: “GEDUC-615-12 Examining the Potential of Embedded Formative Assessment in Promoting Clinical Learning”

Dear Ms. Woods:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled “GEDUC-615-12 Examining the Potential of Embedded Formative Assessment in Promoting Clinical Learning” for ethical compliance with the Tri-Council Guidelines (TCPS) and Queen’s ethics policies. In accordance with the Tri-Council Guidelines (article D.1.6) and Senate Terms of Reference (article G), your project has been cleared for one year. At the end of each year, the GREB will ask if your project has been completed and if not, what changes have occurred or will occur in the next year.

You are reminded of your obligation to advise the GREB, with a copy to your unit REB, of any adverse event(s) that occur during this one year period (access this form at https://eservices.queensu.ca/romeo_researcher/ and click Events - GREB Adverse Event Report). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example you must report changes to the level of risk, applicant characteristics, and implementations of new procedures. To make an amendment, access the application at https://eservices.queensu.ca/romeo_researcher/ and click Events - GREB Amendment to Approved Study Form. These changes will automatically be sent to the Ethics Coordinator, Gail Irving, at the Office of Research Services or irvingg@queensu.ca for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Yours sincerely,

Joan Stevenson, Ph.D.
Professor and Chair
General Research Ethics Board

cc: Dr. Lyn Shultz, Faculty Supervisor
Dr. Lesly Wade-Woolley, Chair, Unit REB
Erin Wickum, c/o Graduate Studies and Bureau of Research
Appendix C: Ethics Approval Queen’s University Study Two and Three

Email on February 7, 2013

From: irvingg@queensu.ca [irvingg@queensu.ca]
Sent: February 7, 2013 2:05 PM
To: Judy Woods
Cc: Lyn Shulha; Don Klinger; Erin Wicklam; Gail Irving
Subject: Delegated Review Clearance Letter WOODS GEDUC-656-13; Romeo 6007688

Dear Ms. Woods:

Please find attached the Delegated Review Clearance Letter for your study entitled: "GEDUC-656-13 Embedded Formative Assessment: Promoting Professional Learning in Nursing Education"; ROMEO # 6007688.

Good luck with your research.

Regards,

Gail Irving
Ethics Coordinator, GREB
Office of Research Services
January 10, 2014

Ms. Judy Woods  
Ph.D. Candidate  
Faculty of Education  
Queen's University  
Duncan McArthur Hall, Room A106  
Queen's University  
511 Union Street West  
Kingston ON, K7M 5R7

GREB Romeo #: 6007688  
Title: "GEDUC-656-13 Embedded Formative Assessment: Promoting Professional Learning in Nursing Education"

Dear Ms. Woods:

The General Research Ethics Board (GREB) has reviewed and approved your request for renewal of ethics clearance for the above-named study. This renewal is valid for one year from February 7, 2014. Prior to the next renewal date you will be sent a reminder memo and the link to ROMEO to renew for another year.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one year period. An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours. Report to GREB through either ROMEO Event Report or Adverse Event Report Form at http://www.queensu.ca/ors/researchethics/GeneralREB/forms.html.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example you must report changes in study procedures or implementation of new aspects into the study procedures. Your request for protocol changes will be forwarded to the appropriate GREB reviewers and/or the GREB Chair. Please report changes to GREB through either ROMEO Event Reports or the Ethics Change Form at http://www.queensu.ca/ors/researchethics/GeneralREB/forms.html.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Yours sincerely,

Joan Stevenson, Ph.D.  
Chair  
General Research Ethics Board

c.: Dr. Lyn Shulha, Faculty Supervisor  
Dr. Benjamin Bolden, Chair, Unit REB  
Ms. Erin Wicklam, c/o Graduate Studies and Bureau of Research
Appendix D: Ethics Approval Site Two Study Two

Email on April 3, 2013

Dear Ms. Woods and Professor Shulha,

Please find attached your certificate of ethics approval for your research project entitled: ```Embedded Formative Assessment: Promoting Professional Learning in Nursing Education```, file #02-13-37.

This certificate is valid for one year, from April 3rd, 2013 to April 4th, 2014.

If you have any questions or comments, please do not hesitate to contact me via email or at extension 5387,

Best regards,

XXXXXXXX

Ethics Coordinator
Office of Research Ethics and Integrity
University Name
University Address
University Phone Number
Ethics Email
Appendix E: Ethics Approval Site Three Study Two

Email on April 3, 2013 with 2013-MAR-WOODS-Certificate of Ethical Approval

Hi Judy:

We are pleased to announce that your REB Application: Embedded Formative Assessment Promoting Professional Learning in Nursing Education has been approved by the XXXXXXXX Research Ethic Board. Here I’ve attached the Certificate of Ethical Approval.

Thanks for your patience and please let us know if you have any questions.

We wish you all the best on your research study!

Regards,

XXXXXXXX

Research Ethics Board Administrator
Phone Number
Name of Institution
Address of Institution
Website of Institution
Appendix F: Approval Site Study Three

Email June 6, 2014 at 7:12 p.m.

Hi (Director of Nursing)

Judy Woods (cc'ed on this email) is one of our clinical instructors and as part of her doctoral studies at Queens in education she has completed a personal reflective journal about her teaching during clinical. It does not contain personal information about clients or students and cannot be traced back to individuals other than herself. She has been told by Queens IRB that she must get consent from students to use it as part of her dissertation.

The question is whether she needs ethical approval from XXXXXXXX. I recall our IRB has said it is not necessary to get approval in this type of situation. Can you please advise us?

Thanks,

XXXXXXXX

XXXXXXXX, RN, PhD
Associate Professor and
Associate Director Undergraduate Programs
School of Nursing
University Name
University Address
University Phone Number
Email June 6, 2014 at 9:59 p.m.

Hi Judy

Apparently if you do not identify (name of university) or (city) in any way you do not need ethics. If you need to identify the site then you will need to at least ask the IRB Chair if they require ethics.

Good luck with your studies.

Thanks for everything.

XXXXXXXX

XXXXXXXXX, RN, PhD
Associate Professor and
Associate Director Undergraduate Programs
School of Nursing
Name of University
Address of University
Phone Number
Fax Number
## Appendix G: Examining Teaching and Learning around the Preparation and Administration of Medications (Study One)

<table>
<thead>
<tr>
<th>Date and source of data and curricular focus</th>
<th>Formative assessment practice(s) / focused reflection</th>
<th>Insights from analysis</th>
<th>Plan for next steps</th>
</tr>
</thead>
</table>
| CS150212 First medication lab. Focus: preparation and administration of oral medications | Strategy 1 Understand, discuss, and clarify learning intentions and criteria for success. (Instructor)  
- Reviewed terminology.  
- Drew attention to tables and diagrams in textbooks.  
- Referenced pre-readings and related online resources.  
- Identified procedural steps and rationale as fundamental for learning.  
- Demonstrated the clinical skill and coached student practice. | My instruction. Preparation for each simulation was consistent: review lab outline and course objectives, read assigned textbook content, review related course videos, draft a lesson plan with teacher demonstration followed by student practice, and gather additional resources (e.g., med cups). This was my first time teaching a simulation course. Instruction closely followed the prescribed outline. I wondered how necessary it was to review assigned textbook content if students had done so in their preparation.  
Student response. When I asked students about their preparation, some reported they had read; others had reviewed. From questions asked it seemed that some students were less familiar with readings. Others demonstrated difficulty locating procedural steps and accompanying rationale in their textbooks. The varying number of desired outcomes of safe medication practices in different resources seemed to confuse instead of clarifying (CS150212). | • Reevaluate lesson content and management of instructional time.  
• Clarify number of rights with course coordinator to promote consistent instruction across courses.  
• Create skill stations for preparing and administering oral medications.  
• Consider integrating use of a medication cart in simulation.  
• I thought about how introduction to medication administration could be taught differently using case scenarios or role playing and having more time for practicing (CS150212). |
| CS150212 First medication lab. Focus: preparation and administration of oral medications | Strategy 2 Facilitate discussions and implement learning tasks that provide evidence of students’ current understandings. (Instructor)  
- Provided equipment e.g. medication cups, oral syringes to increase familiarity.  
- Incorporated Math Clinical Skills Workbook content as an additional resource. | My instruction. There is limited time to provide a solid foundation of content and opportunities for students to practice performing safe administration of oral medications in a clinical setting within a 3-hour lab. I did not feel students got the full grasp of oral medication administration; they got an overview. An overview is neither sufficient nor adequate preparation for administering medications. Although course materials, multiple texts, and online instructional resources were available, students’ actual preparation for this lab was unknown. Exploring students’ knowledge and understanding of medication safety might be a good post-conference focus. My attempt to integrate an online video | • Consider revision of outline to build a solid foundation for medication administration in the first simulation.  
• Purchase a clinical skill and medication textbook to prepare for calculation questions.  
• Discuss concerns about students’ calculation difficulties with coordinator.  
• Consider developing a scenario with a manikin, medication, order, and documents to practice applying |
- Accessed and displayed content from course websites to clarify the desires outcomes of safe medication administration.
- Asked questions to determine and promote understanding.
- Integrated examples from my clinical practice in discussions.
- Developed simple orders with familiar antipyretic medications to practice dose calculations.
- Explicitly presented the procedural steps for performing the clinical skill before students practiced in pairs at prearranged bedside skill stations situated around the perimeter of our lab.
- Reviewed a medication test assigned and completed before and separate from the lab.

(College of Nurses’ self-regulated learning) to model accessing course resources and to promote professional learning may have taken away lab practice time and been more appropriately integrated into a classroom discussion. Perhaps the first session of medications needs to be all about medication preparation and administration. I used the drug book and math clinical skills book in my preparation and used book examples to discuss measurement and other terms. I calculate meds using the cross multiplication method, and I need to learn alternatives to better understand other approaches. The lab outline required reviewing a medication test. I thought about responsibility for this medication test given by someone else and how reviewing it as part of simulation affected time for students’ skill practice in the lab. The medication test was not part of the simulation outline yet success on this test was required before the student could administer medication in the clinical practicum. I also wondered about students’ knowledge and instruction before the simulation course. How might communication of prior instruction be shared with simulation and practicum instructors? I wondered about including a variety of different medication tests in pharmacology courses, clinical skills labs, and clinical practicum. A medication test aligns with this strategy, eliciting evidence of learning (CS150212).

**Student response.** Not all students purchased the drug book or math clinical skills books. Students seemed to have more familiarity with textbook content related to medication administration than textbook content in the previous lab on infection control. Students engaged in examining blister packs, suspension, a pill splitter, and syringes (CS150212).

<table>
<thead>
<tr>
<th>CS150212</th>
<th>First medication lab. Focus: preparation and administration of oral medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy 3</td>
<td>Provide feedback most appropriate for moving learning forward; modify approaches and resources for learning. (Instructor)</td>
</tr>
<tr>
<td>Strategy 3</td>
<td>My instruction. Calculations were minimally practiced on paper. Most calculations were in the med calculation test. It was challenging to assess individual students’ understanding of the calculations and hence to give constructive, specific feedback. To what extent was my preparation for this lab adequate? To what extent was students’ preparation adequate for the lab and adequate for the desired outcomes of safe medication administration.</td>
</tr>
<tr>
<td></td>
<td>Consider developing simulation scenarios for administering oral medications addressing the recommended practices</td>
</tr>
<tr>
<td></td>
<td>Consider how soliciting feedback from instructors has potential for realigning learning objectives</td>
</tr>
</tbody>
</table>
groups of students to practice the new skill.
- Circulated among students, asking and answering questions.
- Gave individualized feedback during calculations and during practice of skill performance. Feedback to each student was on the basis of my observation of the student’s interpersonal communication and clinical skill performance.
- Redirected students to the procedural steps and accompanying rationale outlined in their textbooks and recommended using this as a resource when practicing.

safe administration in practicum? I asked myself what factors in the preparation and administration of medications require attention for safe administration of all meds for residents. What do faculty say? What do clinical teachers say? What do students say? (CS150212)

**Student response.** Some students coached their peers’ performance. I observed students engaging in the hands-on activities, taking turns, practicing, and talking about what they were doing. Some students critiqued their own performance. All students observed and offered feedback on their peers’ performance. (CS150212)

- Bring additional practice examples to show cross multiplication methods.
- Review the textbook and skills book methods to better support students who choose this method.
- Think ahead about how my new questions might inform or contribute to future professional learning opportunities or research.

---

**Strategy 4**

Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources. (Student)
- Commended two students whom I observed coaching peers in medication calculation.
- Encouraged students to engage in peer assessment and to give peer feedback.

(My instruction. I know how students are learning about medication in this program and wonder how my practicum students at a different site are learning the same (CS150212).

**Student response.** One student offered additional help to a student who acknowledged the medication calculation was difficult. What were other students’ experiences? Simulation was a safe environment for students to identify gaps and offer or accept assistance.

Two students coached peers individually. One of these students used the cross multiplication method (my prevalent practice), and the second student (ex-medic with medication experience) worked 1:1 with another student who accepted the offer of help outside lab hours.)

- Review students’ written feedback on simulation learning to identify opportunities for improvement.
- Consider questioning my practicum students to support scaffolding their knowledge and practice of safe medication administration.

---

**Strategy 5**

Self-monitor performance and seek out appropriate feedback and resources to

(My instruction. Oral feedback and written comments from students at the end of this lab indicated the need for further understanding and explanation and acknowledged the benefit of feedback from both peers and instructor.)

- Implement student self-assessment of their preparation to safely perform medication administration in the clinical placement.

---

**CS150212**

First medication lab. Focus: preparation and administration of oral medications

---

198
### Oral Medications

<table>
<thead>
<tr>
<th>Oral medications</th>
<th>help move the learning forward. (Student)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Provided feedback on observed performance as students practiced.</td>
</tr>
<tr>
<td></td>
<td>• Redirected students to textbook as a resource for learning.</td>
</tr>
<tr>
<td></td>
<td>• Encouraged working in pairs.</td>
</tr>
</tbody>
</table>

### Approaching the End of Each Session

Approaching the end of each session, I invited questions specific to the new clinical skill and the simulation course. Before exiting each week, students were required to rate and comment on the lab experience in an evaluation document provided by the course coordinator (CS150212).

**Student response.** Student stating difficulty with calculations accepted responsibility for learning by accepting offer of assistance (CS150212). At end of lab one student offered to help one who was having difficulty with calculations. The offer was accepted.

### CS290212

#### Second Medication Lab

**Focus:** Preparation of Injectable Medications and IM Injection

<table>
<thead>
<tr>
<th>Strategy 1</th>
<th>Understand, discuss, and clarify learning intentions and criteria for success. (Instructor)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Reviewed pre-reading and learning objectives.</td>
</tr>
<tr>
<td></td>
<td>• Responded to questions about success criteria in midterm evaluation.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrated preparation and administration of an IM injection.</td>
</tr>
</tbody>
</table>

**My instruction.** I needed additional preparation time to read multiple resources, set up the lab, and practice demonstrating the skill. I thought about the differences in *required* versus *recommended* readings and the purchase of textbooks. I wondered how and what students learned in their pharmacology course. I considered how students might approach giving an injection as a rite of passage. I considered how performance of an IM injection as the midterm evaluation might influence their preparation for this lab, and also my instruction. Did my emphasis on learning to administer an IM injection lessen their time to learn and practice other skills, including SC and intradermal injections and the preparation of insulin? I felt that students were less adequately prepared for administering these other injections yet there may be more opportunities to inject insulin SC in practicum. A new question emerged. If students are more likely to administer SC than IM injections in their first practicum, then might administration of a SC injection be a more suitable skill for the midterm evaluation?

**Student response.** Administering their first injection, a clinical skill that once learned and evaluated as satisfactory in simulation could be performed in practicum, seemed to influence students’ engagement in learning. This was real nursing.

### My Instruction

- Locate and purchase the recommended clinical math skills textbook and a clinical skill technique and performance workbook.
- Consider how missed teaching could be done differently next time (CS290212) and how it needs to be taught and closely monitored in practicum now.

### CS290212

#### Second Medication Lab

**Strategy 2** Facilitate discussions and My instruction. Three hours was insufficient for preparing students to safely administer intramuscular, intradermal, and intradermal injections. Request the course coordinator’s approval to integrate skill.
| CS290212  
Second medication lab.  
Focus: preparation of injectable medications and IM injection | Strategy 3  
Provide feedback most appropriate for moving learning forward; modify approaches and resources for learning. (Instructor)  
- Circulated in lab to observe each student.  
- Answered questions.  
- Gave specific constructive feedback. | My instruction. Specific feedback facilitates correction of performance and increased understanding. I wondered to what extent was monitoring by circulation among the 12 students effective? Were all students comfortable asking questions? How much did I see? Might 1:1 monitoring of the complete skill with each student better assess their learning and also be good preparation for the midterm evaluation of this skill?  
Student response. Overall, students’ written comments on the simulation lab at the end of each three-hour session were positive. Feedback checklists (aligned with the students’ course textbook) in the clinical simulation skill stations. (CS070312)  
- Review the performance of each new clinical skill before each simulation session and seek related print materials or resources from my clinical workplace to highlight theory-to-practice connections and enrich instruction.  
- Plan additional medication review with my practicum group of students. |
<table>
<thead>
<tr>
<th>CS290212</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second medication lab.</strong></td>
</tr>
<tr>
<td><strong>Focus:</strong> preparation of injectable medications and IM injection</td>
</tr>
</tbody>
</table>

**Strategy 4**  
Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources.  
- Provided each student with vials of ampicillin and sterile water, syringes, needles, alcohol swabs, sterile water, and clementines and demo injector pads.  
- Required students to work in pairs to review the procedural steps, assess their partner’s performance, and give constructive feedback.  

**My instruction.** Knowing their first evaluation in on an IM injection, I paid close attention to demonstrating administration of an IM at 3 injections sites, and facilitating practice on mannequins (and clementines). I reviewed with them the evaluation criteria. I referenced the textbook, demonstrated the skill, performed the steps of the procedure with them, and monitored their performance at the skill stations. I circulated to answer questions and observe. Additional resources included a print out of the drug Ampicillin from an electronic resource. Advance instructor preparation was absolutely required. I arrived one hour early and discovered sufficient supplies on the medication cart for all students to have their own supplies for learning and practicing the skill.  

**Student response.** Students enthusiastically participated in this practical activity. Students’ feedback was that more attention to aseptic technique and gauge is needed at the start (CS290212)  

| Strategy 5  |
| Self-monitor performance and seek out appropriate feedback and resources to help move the learning forward.  
- Encouraged use of textbook procedural outline.  
- Encouraged self and peer assessment.  
- Distributed IM take-home kits to facilitate additional practice.  

**My instruction.** For preparation of medication from powder. I provided real ampicillin and sterile water. Each student had a syringe, needle, alcohol swab, ampule, sterile water, powdered medication, a clementine, and injector pads gathered for practice; participation in coached practice of skill; practice in pairs. The combination of five formative assessment strategies contributed to a rich learning experience in learning to prepare and administer IM injection. Additional resources were obtained to provide each student with supplies to prepare medications independently. Take-home kits supported student preparation for the IM midterm evaluation. Advance instructor preparation included accessing additional supplies and printout from an electronic parenteral manual.  

**IDEA**-This lab requires a focused resource based on clinical site policies and procedures, and a procedural checklist as a practice tool.  

- Be more mindful of time as I really skimmed over the SC and intradermal injections and gave limited instruction on insulin (Students did not have time to practice).  
- IDEA-This lab requires a focused resource based on clinical site policies and procedures, and a procedural checklist as a practice tool.  

- Redesign lab to promote students taking more responsibility for regulating their own earning (e.g. apply learning from lab on oral medications to this lab on injectable medications.  
- Consider the challenges in teaching and learning and redesign the lesson to allow more time for practice.  
- Discuss with students their responsibilities for completing the readings and watching skill videos as preparation for each lab.
<p>| CS070312 Third medication lab. Focus: administration of topical, ophthalmic, ototic, rectal, and vaginal medications and metered-dose inhaler | Strategy 1 Understand, discuss, and clarify learning intentions and criteria for success. (Instructor) • Purchased and received clinical skills performance checklist resource connected to course textbook. | My instruction. I felt challenged to teach the assigned course content in the time allotted for each lab. To save time in the lab I stated the textbook page numbers so that students could locate information for learning and practicing clinical skills in a more timely way. Procedural information for each skill and the rationale is identified as pre-reading material in the course outline. I think about how I can support students in becoming more independent in locating and reading procedural descriptions in their textbooks as preparation for skill development. Student response. Students requested and I provided resource info for students to access skills book. The accompanying skills and technique content matches our P&amp;P textbook with additional pictures. A couple of students wanted the resource reference, a copy. I recommended the bookstore, Amazon, and library (promoting self-regulation). | • Provide laminated templates of the clinical skill and the required equipment for the skill at the skill stations in advance to allow additional opportunities for students to practice. • Consider how I might use other resources identified in the course outline (e.g. accessing the online videos) to support student learning. • Encourage students to access the clinical skill resource in the library or to purchase it. • Discuss with students their responsibility for completing the pre-readings identified in the course outline in preparation for learning clinical skills in the lab. |
| CS070312 Third medication lab. Focus: administration of topical, ophthalmic, ototic, rectal, and vaginal medications | Strategy 2 Facilitate discussions and implement learning tasks that provide evidence of students’ current understandings. (Instructor) • Implemented self and peer | My instruction. Today at each skill station I provided a skill checklist for learning administration of medication by other routes. The learning intentions and success criteria were explicitly stated and readily accessible. Student response. The students reported that using checklists was helpful. | • Consider how students might better use their textbook for learning in the lab in the absence of a printed clinical skill checklist resource. • In lesson planning and teaching, reflect on “what is critical to safe performance?” |</p>
<table>
<thead>
<tr>
<th>CS070312 Third medication lab. Focus: administration of topical, ophthalmic, ototic, rectal, and vaginal medications and MDI/nebulizer</th>
</tr>
</thead>
</table>
| **Strategy 3** Provide feedback most appropriate for moving learning forward; modify approaches and resources for learning. (Instructor)  
• Identified use of procedural steps to guide and to improve skill performance.  
**My instruction.** Circulating in the lab, I provided feedback on my observations of students’ performance and called students’ attention to the procedural requirements. **Student response.** Observed students’ enthusiastic participation in practicing skill and offering support to peers. |
| **Strategy 4** Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources. (Student)  
• Designed activities that required students to review, discuss, and examine samples of medications given by varied routes.  
• Supported students’ decisions to administer or receive IMs from classmates and monitored activity.  
**My instruction.** Paired students for practicing skills. Encouraged use of procedural checklist to monitor own and other’s performance. Circulated in lab and encouraged student with the checklist to give feedback for improving performance to their peer. **Student response.** Observed student pairs supporting each other, referring to procedural steps to verify accuracy of performance and providing corrective feedback. |
| **Strategy 5** Self-monitor performance and seek out appropriate feedback and resources to  
**My instruction.** Implemented activity, which facilitated feedback from multiple sources (e.g. self, peer, instructor).  
**Student response.** Several students requested  
• Check with my practicum students about their readiness for injections and administration of other medications. |

and MDI/nebulizer assessment using checklists.  
• Discussed use of textbook and clinical skill resource book or online videos as tools for assessing learning and improving performance.  

• Consider other approaches for teaching medication routes (e.g. student peer for anatomical positioning for topical, ophthalmic, ototic medications.  
• Promote feedback from peer as the client, instructor as observer.
<table>
<thead>
<tr>
<th>Strategy 1</th>
<th>My instruction. Formative assessment practices in clinical practicum were continuous and specific, relating to instructor observations and to student questions, comments, or written assignments. I responded to questions about agency protocols and also redirected students to resources in the clinical setting (i.e., staff PSWs, resident charts, or care plans). I reviewed the requirement for care plans to address all resident needs and reminded students of their resource Fitch article given as a course reference. I scheduled medication administration with each student on the basis of readiness and preparedness. In advance, I met with the student to discuss their resident’s prescribed medication. I offered cues to support their success as the student performed this clinical skill. One-on-one work promoted student learning and patient safety. Student response. One student prepared, having brought a pocket drug book for reference during administration. This showed initiative.</th>
<th>Strategy 2</th>
<th>My instruction. In post-conference I directed students to the Long Term Care student handbook available online. Continue assessment of student readiness for medication.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand, discuss, and clarify learning intentions and criteria for success. (Instructor)</td>
<td>• Reviewed clinical expectations, policies, and process for medication administration in clinical setting. • Restated and enforced the requirement to discuss the rights of medication administration as part of each student’s preparation for administration in practicum. • Identified additional opportunities to administer SC insulin, emphasizing required advance preparation. • Returned nursing care plans and reflections with written feedback. • Answered questions about requirements including due dates.</td>
<td>Facilitate discussions and</td>
<td>Continue assessment of student readiness for medication.</td>
</tr>
<tr>
<td>• Recommended to students the bookstore, Amazon, and library as a source for accessing the clinical skill checklist resource to promote self-regulation of their learning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topical, ophthalmic, ototic, rectal, and vaginal medications and MDI/nebulizer help move the learning forward. (Student)</td>
<td>Information about obtaining the clinical skill checklists as a resource for their ongoing learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP160312 Day 4 of 7 eight-hour clinical practicum shifts. Focus: continued introduction to nursing practice and performance of learned clinical skills. Example of medication administration.</td>
<td>• Ask lab student about their preparedness for administering medications in practicum.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP160312 Day 4 of 7 eight-hour clinical practicum shifts.</td>
<td>Allocate time in post-conference to review the evolving learning needs of each student. Identify clinical skills performed/not yet performed by each student. Identify and discuss with students additional clinical skills observed or reported in the clinical setting. Collaborate with staff in clinical setting to facilitate new learning experiences for students.</td>
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</table>
clinical practicum
shifts.
Focus: continued
introduction to
nursing practice and
performance of
learned clinical skills.
Example of
medication
administration.

| Implement learning tasks
  that provide evidence of
  students’ current
  understandings. (Instructor)
  • Monitored students’
    activities on the unit by
    circulating among their
    assigned work areas,
    observing their interactions
    with others, responding to
    questions, and giving
    constructive feedback.
  • Implemented students’
    reports on their practicum
    experiences during the
    post-conference in an
    "around the table" format,
    focusing on their new
    experiences and identifying
    future learning objectives.
  • Scheduled a meeting with
    each student “on the unit”
    to assess student readiness
    for safe preparation and
    administration of
    medication. For student
    who was prepared, met at
    0730 to prepare for 0800
    administration, reviewed
    resident information and
    rights of administration and
    offered cues to support
    success. Gave positive
    feedback during and after
    performance.
  • Planned post-conference
    activity and obtained
    equipment for practicing
    injection skills with
    clementines (CP160312)
and showed the hard copy as a resource for nursing care
plan and reflection requirements. In practicum we were
part of the health care team. In the orientation to our
clinical site, I purposefully integrated formative
assessment strategies by discussing and answering
questions about course objectives, clinical evaluations,
anecdotal reflections, and requirements for nursing care
plans. I reviewed relevant school of nursing and clinical
site policies (e.g., confidentiality). Advance planning is
required to facilitate medication administration
experiences. Throughout each shift I met frequently with
students to inquire about their progress, their resident’s
medical condition, and student readiness for medication
administration and to address any concerns or questions.

Formative assessment was ongoing and in most instances
to individual students at intervals throughout the clinical
shift. I organized student assignments such that they were
available at times to assist their student peers. I
 collaborated with staff to seek opportunities for students to
perform additional clinical skills and was attentive to
resident and staff feedback on student performance.

Feedback in a clinical practicum, solicited and unsolicited,
may come from peers, instructor, residents, clinical staff
members, and other professionals. Following each clinical
shift I reflected on my instruction and assessment practices
and documented my experience and observations of
implementing formative assessment strategies in a journal.

Absence of communication between lab and clinical
instructors about students’ skill performance requires
clinical practicum instructors to review level of knowledge
and skill as part of preparation for administration of
medication in the clinical practicum. Organization of
medication simulation labs with clinical practicum dates
contributed to the administration of medication in the
fourth of six days of practicum.

Student response. On this fourth day (of seven), the
students and I were more familiar with residents, staff, and
documentation. I observed increased confidence in the
students’ approach. One student brought a pocket drug
book to the clinical practicum in preparation for
administration and schedule
additional opportunities for
students to administer medications
to their assigned residents.

• Invite or use student-generated
  examples of clinical experiences to
  share learning experiences within
  our clinical group and to generate
discussions.
Other. In post-conference I learned that before each lab at the collaborative program site of my practicum students, the students must do a pretest and acquire a preset score before being allowed to participate in each lab. All students are “encouraged” to be successful in completing all readings. One student reported blocking time to complete the readings and be prepared for the test and the lab. This student stated that setting aside time for reading promotes learning by increasing familiarity with the content.

CP160312
Day 4 of 7 eight-hour clinical practicum shifts.
Focus: continued introduction to nursing practice and performance of learned clinical skills. Example of medication administration.

My instruction. As required in all clinical placements, students submitted nursing care plans and anecdotal reflections on their practice. I read each assignment and considered how these did or did not contribute to the student’s progress towards meeting course objectives. I made instructor notes about their learning for two purposes: to scaffold student learning in the clinical practicum and to provide evidence of learning in each student’s course evaluation. On their assignments I wrote constructive comments and returned them to students the following week. My written feedback on both assignments was intentionally formulated to affirm their lived clinical experience and then ask probing questions to prompt critical thinking about their nursing practice. The presence of the instructor offers safety and security to students as they begin medication administration practice, and coaching by the instructor is necessary for them to perform this skill successfully in the clinical practicum. Using the rights as a safety framework promotes and affirms safe practice. Positive and constructive feedback from the instructor contributes to student confidence and learning. Student questions about previously reviewed agency practices were redirected to other resources including the chart, care plans, or their staff preceptors as applicable. Student response. Reflections were on events or thoughts, which students chose to submit. My comments were intended to push thinking forward. Students were not required to resubmit.
| CP160312 | Day 4 of 7 eight-hour clinical practicum shifts. Focus: continued introduction to nursing practice and performance of learned clinical skills. Example of medication administration. | Strategy 4 | Take on the role of “learning guide” for each other using learning intentions, criteria for success, instructional tools, and feedback as resources. (Student)  
- Assigned pairs of students to clinical areas and encouraged peer support, teamwork. | My instruction. Assigning students in pairs on initial practicum days lessened students’ sense of isolation in this new environment. On the fourth of the seven days of clinical practicum shifts the students and instructor were increasingly familiar with the residents (clients), staff, and documentation. (CS160312)  
Student response. Observed increased confidence of students in finding their way around the clinical setting and finding equipment or supplies.  
- Identify and discuss examples of how students might collaborate in providing care. |
| CP160312 | Day 4 of 7 eight-hour clinical practicum shifts. Focus: continued introduction to nursing practice and performance of learned clinical skills. Example of medication administration. | Strategy 5 | Self-monitor performance and seek out appropriate feedback and resources to help move the learning forward. (Student).  
- Initiated post-conference discussion of completed nursing care plans and reflection assignments.  
- Used post-conference to discuss progression in learning and to identify learning needs of each student.  
- Reviewed progression in learning and next steps.  
- Invite students to Identify opportunities to perform new clinical skills in the assigned placement setting.  
- Planned clinical activities with students for preparation and | My instruction. Responded to questions about agency protocols by directing students to available resources (e.g., staff PSWs, resident care plans). Assigned two groups of three students on two floors. Observed their working together and also with PSWs for bath, bed, feeding, and toileting. Observed students in groups of two or three examining flowsheets, and reviewing charts. Clinical practicum presents multiple opportunities for students to take responsibility for their own learning.  
Student response. Observed students reviewing facility care plans and discussing their learning experiences with peers when taking breaks.  
- Include in orientation how a student/instructor is able to access electronic or other resources in support of resident/client care.  
- Encourage students to complete self-assessment of their mid-term and end of term clinical performance evaluations. |
| administration of skills.  
| Observed performance of skills—SC, oral meds, feeding, ointment.  
| Collaborated with staff to arrange for students to observe dressing changes.  
| Proactively asked staff to seek students for measurement of blood pressure and temperatures, and I observed/coached it including reporting to nurse.  
| At breaks with students, identified other skill learning opportunities and solicited questions/information about their experiences during the clinical practicum. |

*Note.* IM, intramuscular; MDI, metered-dose inhaler; PSW, personal support worker; SC, subcutaneous.
Appendix H: Research Poster (Study Two)
(Edits made to English version of poster to maintain confidentiality.)

Who am I?

- My name is Judy Woods.
- I am a Registered Nurse in clinical practice.
- I have taught in second year clinical practicum and the skills labs in the nursing program in Ottawa.
- I am a Doctoral student at Queen’s University and will be conducting my research in xxxx.

WHAT am I doing?
I am studying how assessment can promote professional learning in nursing education by collecting information from nursing students and their clinical teachers through on-line surveys, focus groups with nursing students, and in-depth interviews with clinical teachers. I will examine nursing students’ and teachers’ experiences of assessment and learning in clinical practicum and lab contexts.

WHY?
Research in classroom education shows evidence that assessment (by self, peers, and teachers) can promote learning. My research will examine the potential of assessment to promote learning in clinical nursing education.

HOW?
Second year nursing students and their clinical teachers will receive a Letter of Information and Consent to Participate, and a link to an online survey via their email. The names of students and teachers who participate in the survey, or focus group (students) or interview (clinical teacher) will be entered into a draw for one of two iPod Shuffles.

Nursing students who are willing to participate in a focus group with other nursing students, and clinical teachers who are willing to participate in an in-depth interview will contact Judy Woods at judy.woods@queensu.ca for further information and to indicate their interest in participating.

TOGETHER, we can make a difference!
Appendix I: Data Analysis (Study Two)

1. I read through the responses from each participant numerous times to gain a sense of each instructor’s and each student’s understanding and/or experience of formative assessment. I identified themes and patterns concerning formative assessment strategies within both instructor and student groups in their responses to both survey and interview questions.

2. I examined instructor responses for descriptions, processes, or examples of the instructors’ use of formative assessment strategies.

3. I examined instructor responses for their views on the effectiveness of the formative assessment strategies in clinical nursing education.

4. I examined student responses for descriptions, processes, or examples to indicate their recognition of the formative assessment strategies.

5. I examined student responses for their views on the effectiveness of formative assessment strategies in clinical nursing education.

6. I compared the interview and survey responses of instructors for similarities and differences in themes or patterns.

7. I compared the interview and survey responses of students for similarities and differences in themes or patterns.
Appendix J: Reflection Rubric (Study Three)

Using a FRAME approach to writing reflection: **Maximum points: 15**

<table>
<thead>
<tr>
<th>Available points</th>
<th>Excellent: Total range: 12–15 points Per section range: 2.4–3 points</th>
<th>Satisfactory: Total range: 9–11.9 points Per section range: 1.8–2.3 points</th>
<th>Unsatisfactory: &lt;9 points Per section: &lt;1.8 points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F:</strong> <strong>Focuses</strong> on a specific situation within the past week: <strong>3 points (20%)</strong></td>
<td>Clearly identifies a specific situation.</td>
<td>Discusses a situation in general terms.</td>
<td>Provides list of activities completed.</td>
</tr>
<tr>
<td><strong>R:</strong> <strong>Reflects</strong> on the aspects of the situation that were challenging: <strong>3 points (20%)</strong> Describe your actions. What did you learn about yourself?</td>
<td>Clearly describes response.</td>
<td>Provides general response.</td>
<td>Provides no response.</td>
</tr>
<tr>
<td><strong>A:</strong> <strong>Assess:</strong> <strong>3 points (20%)</strong> What went well/what didn’t?</td>
<td>Clearly describes what went well, what didn’t.</td>
<td>Provides general statement.</td>
<td>Does not identify what went well/what didn’t.</td>
</tr>
<tr>
<td><strong>M:</strong> <strong>Make meaning:</strong> <strong>3 points (20%)</strong> What would you do differently the next time? What feedback did you receive? How might you grow from the experience?</td>
<td>Is specific in identifying what she/he will do differently. Demonstrates insight in discussing the situation related to possibilities for future growth.</td>
<td>Unable to identify possible differences in handling a similar future situation. Finds no areas for growth in describing the situation.</td>
<td>Does not identify areas for growth.</td>
</tr>
<tr>
<td><strong>E:</strong> <strong>Explore</strong> your options: <strong>3 points (20%)</strong> What would help you with similar situations in the future? What skills do you need to develop to enhance your abilities?</td>
<td>Clearly states new skills required for future. Clearly identifies supports needed to assist in similar situations in the future.</td>
<td>Ambiguous regarding new skills or abilities.</td>
<td>Does not identify skills needed for future similar situations.</td>
</tr>
</tbody>
</table>

Total score: 
Signature:_____________________________
Appendix K: Email from the Course Professor (Study Three)
(This has been edited to preserve confidentiality.)

NURS XXXX - Introduction to Nursing Practice — 2014 Summer: assignments for XXXX
Basic program

May 11, 2014

Good morning,

I would like to clarify, for those of you who have had the accelerated students in clinical these past two weeks that the assignments for the basic program will be somewhat different.

There are 3 assignments which you will be marking:

2 reflection papers, due the first two Fridays,

and lead a post conference in groups of two, during the last week of clinical.

The requirements and rubrics are in XXXX in the supplement.

Hope this is helpful!
Appendix L: Curriculum Expectations (Study Three)

1. Demonstrate application of nursing science through critical inquiry, commitment to life-long learning and evidence-based practice.
2. Practice competently by applying the principles of primary health care with diverse clients in a variety of health care contexts and by responding to emerging trends, technology and concepts in health.
3. Communicate, collaborate and partner with clients, and other members of the health care team to increase capacity and enhance health of populations.
4. Demonstrate ethical, legal and professional accountability in the practice of nursing and remain committed to professional competence through life-long learning.
5. Influence nursing and health care through a social and political analysis of current health care issues and application of leadership skills (School of Nursing, 2014, p. 5).
## Appendix M: Feedback to Students on Reflections (Study Three)

<table>
<thead>
<tr>
<th>Instructor feedback on Reflection 1</th>
<th>Instructor feedback on Reflection 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S01Ref1</strong></td>
<td><strong>Well-described situation.</strong></td>
</tr>
<tr>
<td>You have followed the FRAME outline closely and describe reflection on a situation where you drew upon prior knowledge of your patient (discussion with nurse the day before). You indicate good understanding of the importance of gathering information that will allow you to provide organized care to your patient. 14/15</td>
<td>Communication was the clear focus. Supports needed for the future were not visible. This is well presented, typed, and following the FRAME format. 14.5/15</td>
</tr>
<tr>
<td><strong>S02Ref1</strong></td>
<td><strong>What would help with similar situations in the future?</strong></td>
</tr>
<tr>
<td>You show attention to details and the process. I highlighted, as I was reading, the rationale you provided for your actions. You have noticed a lot! With time, you will develop additional skills and build on the ones you have. 15/15</td>
<td>Faster isn’t always better. You have used “efficiency” and that comes with practice. For your future reflections try to go more specific, then deeper. Thanks! 14/15</td>
</tr>
<tr>
<td><strong>S03Ref1</strong></td>
<td><strong>The FRAME model worked well in this situation.</strong></td>
</tr>
<tr>
<td>Personal hygiene, morning care seems the focus of your reflection and you have stayed close to FRAME. I highlighted in the text your realization of the importance of teamwork, collaborating. I am interested in your comparison of both in lab and real bath, and what you think might have been another way to give a bath. You acknowledge the benefit of the pairing with the staff nurse as training for you being able to do this on your own the next day, and you were successful! You also acknowledge learning through experience. It is normal to be/feel nervous in new situations, and as you experienced, comfort and confidence come with practice. 14.5/15</td>
<td>The FRAME model worked well in this situation. It is a dilemma for staff in these situations. Asking the staff nurse for her response in these was a good strategy. 14.5/15</td>
</tr>
</tbody>
</table>
Think of how you will feel tomorrow going in. Asking another nurse in times of “trouble with a patient” or when you “are nervous” is a solid strategy. Asking questions shows a willingness to learn and demonstrates safe practice. If you don’t know, ask. For the next reflection, try to expand your thinking and what the experience taught you, how it challenged you—and it will be a little longer. 14.3/15

| S04Ref1 | Thank you for sharing. I can imagine some of the feelings you had from your close description. I like especially how you described what you might have done, and what you think you would do in a similar situation next time. This is reflection on practice! Excellent. Confidentiality is something that is important to be informed about. Do you think this might be a good topic for post-conference? 15/15 | Well written and described. You are absolutely right about different approaches for reaching the same end point. We keep adding new ways that work with different situations. The infection control teaching—good for you, the other student, and the patient. 😊 15/15 |

| S05Ref1 | Be proud of what you have learned and experienced in such a short time. You demonstrate caring, respect, a genuine concern for those to whom you provide care. I highlighted areas in the text as I was reading, selecting things you said that demonstrate reflection aligned with the FRAME model. I quite easily could have highlighted it all. Nursing is lucky to have recruited a person such as you. 15/15 | The focus is on communication and collaboration and you have two “situations” to show this. As I was reading, I was relieved and pleased when you reported being tempted to use lift alone and deciding to not jeopardize safety. Your care of the diabetic patient also demonstrates good decision making and communication. 14/15 |

| S06Ref1 | Highlighted are important facets that you have identified in your beginning nursing practice. Initially it seems that the focus | You have reflected and described four aspects of your nursing. For next time, try to focus on one specific situation. |

215
is going to be centred on communication and you have identified the importance of clear communication. Next, you branched to other aspects of providing nursing care. Other understandings you identified include the uniqueness of each individual, challenges in communicating with those who are not verbal, feeling good about providing care and feeling appreciated, gaining confidence, and considering the patient’s perspectives. Although these are not focused on a specific situation, and come from reflection on many aspects of your caring, I considered the quality of the varied reflections in grading with this rubric. You are building on a caring foundation and this is great to see! For your next reflection, try to pick a specific situation and unpack it. Ask yourself the FRAME questions with it. Keep on caring. 13/15

| S07Ref1 | Maintaining human dignity, respect, and privacy is important and you have well described this situation from the perspective of the patient, yourself, and another student. Did you have a chance to talk about the situation with the other student after, privately? Sometimes we need to debrief and in these short talks with colleagues, come to new understandings, or even realize that both people felt the same. I especially liked how you involved the patient in how to move her leg so that she would be more comfortable. What | Well written following FRAME. 15/15. |
better person to ask than the patient? 15/15

| S08Ref1 | Your descriptions give me the whole picture. I highlighted text as I was reading and seeing you how experienced this bath. You express your feelings clearly and interpret the experience of the patient. Your first bed bath was not simple and it is good that the nurse was able to help and also give feedback. It is true that feedback from the patient is special, even when it is not stated verbally. I would not worry too much about hiding your feelings. I too tear up sometimes, especially when something tugs at my heart. Nurses are humans too and it is okay to cry—sometimes we just need to remove ourselves from the bedside to do so. I am pleased that you say you are questioning yourself. Confidence comes with practice. As you build on your experiences and continue to reflect you will be developing deeper understandings. 15/15 | You are so genuine and caring, and your patients both know and feel that. Treasure this because it is special. Thank you. 15/15 |