CHAPTER ONE - THEORETICAL FOUNDATIONS OF TEACHING AND LEARNING

“I am not a teacher; only a fellow traveler of whom you asked the way. I pointed ahead— ahead of myself as well as of you.” —George Bernard Shaw (1908)

Some educators may share George Bernard Shaw’s (1908) notion that teaching is about learning with students as fellow travelers. Others may see the process of teaching in entirely different ways. However, few educators would disagree with Shaw’s view that the practice of teaching involves pointing ahead through intentional processes that facilitate learning. Clinical teachers can guide learners with the help of established theoretical foundations from the discipline of education.

Theoretical foundations in the discipline of education include understanding and valuing how to integrate scholarship into the practice of teaching. They also include knowing how to apply conceptual frameworks, theories and models. **Conceptual frameworks** are broad, overarching views of the world. Conceptual frameworks differ from theories in that they are often more abstract and enduring than theories. **Theories** tend to offer more immediate, practical and factual guidance. They are more adaptable to change and may or may not be useful, depending on circumstance. **Models** offer even more specific direction and are often represented visually in a diagram or chart.

Theoretical foundations include terms such as educate, pedagogy and andragogy. The word **educate** comes from the Latin *educere*, which means to draw out and develop (Oxford Dictionary, n.d.). **Pedagogy**, the art and science of education, seeks to understand practices and methods of instruction that can help teachers educate or draw out learners (About Education, n.d.). While pedagogy seeks to understand how to teach learners of all ages, **andragogy** is the study of helping adults learn (Knowles, 1984). Students enrolled in health care programs in post-secondary or higher education institutions are considered adult learners.

Historically, higher education in general and clinical teaching in particular placed little importance on the actual practice
of how to teach. Professors and instructors in post-secondary institutions were honoured more for content knowledge of
subject matter within their discipline than for instructional methods. However, since the time of Socrates, educational
scholars have examined how learning occurs, what instructional practices facilitate learning, and the contexts where
learning occurs best. Today, content knowledge alone is not enough—clinical teachers must ground their practice in an
understanding of educational processes. In this chapter we provide a brief introduction to the scholarship of teaching
and learning, common conceptual frameworks, and adult education theories and models. In each section we include
creative practical strategies that educators in the health professions can readily use in their everyday clinical teaching
practice.

The Scholarship of Teaching and Learning

In 1990, Earnest Boyer, then president of the Carnegie Foundation for Teaching, challenged an existing norm in higher
education. Traditionally, university educators—known as the ‘professoriate’ or the ‘academy’—were expected to
demonstrate their scholarship primarily by researching and publishing in their areas of content expertise. In his seminal
publication, Scholarship Reconsidered: Priorities of the Professoriate, Boyer (1990) called for a broader definition of
scholarship that includes and recognizes excellent teaching and content area research as equally important. He
proposed four separate, overlapping functions of scholarship: the scholarship of discovery, the scholarship of
integration, the scholarship of application, and the scholarship of teaching. Boyer defined the different forms of
scholarship as:

“The scholarship of discovery comes closest to what is meant when academics speak of ‘research’…no tenets in the
academy are held in higher regard that the commitment to knowledge for its own sake…central to the work of higher
learning…and contributes not only to the stock of human knowledge but also to the intellectual climate of college or
university.”

“The scholarship of integration underscores the need for scholars who give meaning to isolated facts…making
connections across disciplines, placing the specialties in larger context, illuminating data in a revealing way…serious,
disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research… fitting one’s
research – or the research of others – into larger intellectual patterns.”

“The scholarship of application moves toward engagement… reflecting the Zeitgeist of the nineteenth and early
twentieth century that…land grant colleges…were founded on the principle that higher education must serve the
interests of the larger community …tied to one’s special field of knowledge and relate to, and flow directly out of, this
professional activity…requiring the vigor – and the accountability – traditionally associated with research activities.”

“Finally, we come to the scholarship of teaching…as a scholarly enterprise, teaching begins with what the teacher
knows…those who teach must, above all, be well informed, and steeped in the knowledge of their fields…teaching is
also a dynamic endeavor involving all analogies, metaphors, and images that build bridges between the teacher’s
understanding and the student’s learning… yet, today teaching is often viewed as a routine function, tacked on,
something almost anyone can do…defined as scholarship, however, teaching both educates and entices future
scholars…and keeps the flame of scholarship alive.”

The evolving definition of scholarship later came to include six expectations. To be considered scholarly, teachers’ work
must demonstrate clear goals, adequate preparation, appropriate methods, significant results, effective presentation,
and reflective critique (Glassick, 2000; Glassick, Huber & Maeroff, 1997).

As the scholarship of teaching became more widely known, Lee Schulman, another president of the Carnegie Foundation, extended the definition even further by introducing four important standards. Work must be 1) made public in some manner; 2) have been subjected to peer review by members of one’s intellectual or professional community; 3) citable, refutable, and able to be built upon; and 4) shared among members of that community (Shulman, 1998).

As the importance of learner roles in the process of teaching also gained recognition, Boyer’s scholarship of teaching continued to evolve and is now referred to as the scholarship of teaching and learning. Journals such as the International Journal for the Scholarship of Teaching and Learning, the Journal of the Scholarship of Teaching and Learning, the Canadian Journal for the Scholarship of Teaching and Learning and the Canadian Association of Schools of Nursing (CASN) Quality Advancement in Nursing Education are examples of refereed journals committed to public dissemination of teachers’ scholarly work. Educators in nursing (Cash & Tate, 2012; Duncan, Mahara & Holmes, 2014; Oermann, 2015), pharmacy (Gubbins, 2014), physical therapy (Anderson & Tunney, 2014) and other health professions are making concerted efforts to apply the scholarship of teaching and learning to both clinical and academic areas of practice.

In Canada, the CASN (2013) developed a seminal position statement on scholarship. This statement adapts Boyer’s (1990) model of scholarship and includes the scholarship of teaching as an activity expected of nurse educators.

**Creative Strategies**

**Everyday Scholarship**

Imagine a new way to solve a common teaching dilemma or to introduce a new innovation into your clinical teaching practice. Consider the standards of scholarship as you think through the issues involved. How can you make public the solutions you develop or the innovations you create so others can benefit? How can you invite peers to review them? How and where can you cite the explanations of what you have done so others can know about them, refute them or extend them?

**Common Conceptual Frameworks**

Wiliam Purkey (1992) put forward *invitational theory* as an educational framework of learning and teaching relationships based on human value, responsibility and capabilities. Invitational learning is observed in social context, where learners should be invited by the teacher to develop their potentials. The four pillars of invitational theory are respect, trust, optimism and intentionality (Purkey, 1992). The invitational instructor invites learners in, welcomes them, creates warm and welcoming educational environments, intentionally provides learners with optimum learning opportunities, and bids learners a warm farewell at the conclusion of the learning experience.

Creative Strategies

Meaningful Introductions

To be true to invitational theory, the instructor needs to find ways to welcome learners to the course as a great host would welcome guests to a dinner party. Introductions are important if you adopt the invitational theory viewpoint. Rather than having learners just say their name etc., consider inviting them to share a special object (like their favourite tea cup or a picture of their special place). This will give fodder for discussion, help each person feel like an individual, and promote connections between learners in the group.

Constructivism

Constructivist thinking, as espoused by seminal educationalists such as Jean Piaget (1972) and Lev Vygotsky (1978), suggests that knowledge is constructed by learners themselves. Those who view the world through a constructivist lens believe that learners bring valuable existing knowledge to their learning experiences. They view the role of the teacher as building on that knowledge by providing personally meaningful activities.

Constructivist teachers also believe that learning will be enhanced by interactions with informed others such as teachers, practitioners and peers. Therefore, an important aspect of any constructivist teacher’s practice is to plan for and facilitate opportunities for helpful social interaction. In clinical teaching environments, instructors using a constructivist conceptual perspective will create impactful connections individually with students and ensure that opportunities for connections with other students and staff members are possible.

Melrose, Park & Perry (2013) summarize constructivism as a conceptual framework:

“Constructivist learning environments incorporate consensually validated knowledge and professional practice standards, and competencies are comprehensively evaluated. Students’ misconceptions are identified and redirected. Learners are viewed as having a unique and individual zone of ability where they are able to complete an activity independently. Working collaboratively, students and teachers determine what assistance is needed to move toward increasing that zone of independence.” (p.71)

Instructional scaffolding. Just as carpenters use scaffolds to support and prop up buildings during the construction process, educators use scaffolds to temporarily support learners. Scaffolds may be most needed at the beginning of learning experiences and are gradually decreased as students become increasingly able to achieve learning outcomes independently (Hagler, White & Morris, 2011; Morgan & Brooks, 2012; Sanders & Welk, 2005).
Scaffolds initially provide substantive foundational knowledge, offer sequenced opportunities for understanding new ideas, and are gradually withdrawn as learners construct their own ways of understanding the material. Learning activities are designed to link to students’ personal goals, connect theory to practice, and invite deep and critical reflection.

Clinical teachers can expect that instructional scaffolds such as a syllabus, course outcomes and required evaluation activities are in place for student groups. However, each clinical area offers unlimited possibilities for additional innovative scaffolds. For example, clinical teachers can create specific activities for their clinical agency placement area. They can tailor orientation activities to fit their specific practicum placement areas. They can create advance organizers such as concept maps and mind maps (Melrose, Park & Perry, 2013) illustrating approaches to patient care or procedures students will implement. They can sketch simple diagrams to supplement verbal or text instruction. They can model procedures and invite students to participate as much as they are able, turning the activity over to students themselves whenever possible. They can share their own clinical experiences, both those that involved clear professional responses and those that were ambiguous and without clear answers. Woodley (2015) suggests creating individualized orientation folders, either paper or electronic, to distribute to students at the beginning of their clinical rotation.

**Creative Strategies**

**Craft a Catchy Mnemonic**

Mnemonics are memory aids that use the first letters of a set of words to form sequences of information that are easy to remember. One example is the well-known ABC of resuscitation, ‘A’ for airway, ‘B’ for breathing and ‘C’ for circulation. You can craft a catchy mnemonic to help learners in your area remember critical points. Select three to five important pieces of information about a common condition or procedure. Choose one word to represent each of these critical points. Include at least one word starting with a vowel if possible. Share your mnemonic with students early in the clinical experience and encourage all members of the group to refer to it during discussions.

**From the Field**

**Arrange Private One-to-One Student Meetings**

Before each clinical practicum, arrange a private on-to-one meeting with each of your students. Draw from the following...
“Getting to Know You” set of questions to guide your discussions.

Student Name:

Name you wish to be called if different from above:

Email confirmation:

Phone number confirmation:

What is your style of learning?

What are some of your strengths and challenges?

What are your expectations of your instructor?

How can I help you as a learner?

How will I know when you are anxious, stressed or nervous?

What are you looking forward to in this upcoming nursing practice experience?

Why did you go into nursing and where do you see yourself after completing a BSN?

Do you have any nurses in your family or any nursing experience yourself?

Do you work outside of school?

What are your hobbies or interests?

Any other concerns I can address at this point?

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