

**Fusing Acquired and Applied Knowledge:  
A Conceptual Model for a Doctoral Portfolio in Education**

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by

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**Abstract**

Within the education field, the portfolio is a commonly used assessment tool. This paper presents our perceptions of our doctoral journey in the education field and highlights the value of the portfolio. Herein is a conceptual model for the doctoral portfolio which explores the intersection of “acquired” and “applied” knowledge. In order to bridge the gap between the between the knowledge “acquired” during a doctoral courses and knowledge that can be “applied” in a broader educational context, the portfolio experience is the conceptual glue that binds together these two types of knowledge.

### **Introduction**

Ph.D. programs generally include a number of requirements: coursework, comprehensive examinations and a dissertation document and defense. There has been a movement toward alternative components for the Ph.D. degree, namely, the development of doctoral and professional portfolios. A doctoral portfolio, consists of a selection of products which best establish the candidate's claim to have carried out research of a doctoral standard (Walker, 1998). Some programs (e.g., University of New England, Ed.D. program, Maxwell, 2002; Nepean University of Western Sydney, Ed.D. program; Baumgart & Linfoot, 1998) incorporate the doctoral portfolio as an option along side the dissertation. Some programs (for example George Mason University, Fairfax, Virginia, Ph.D. in Education and Brock University, St. Catharines, Ontario, Ph.D. in Education) require the doctoral portfolio in addition to the dissertation.

The authors, Tiffany and Debra were doctoral candidates together in a newly developed joint Ph.D. program. Tiffany came to the doctoral program from a career in supplemental remedial education. Her background work was assessing and developing programming for students with learning difficulties. Debra came to the program from a career in art gallery education where her focus was to provide learning opportunities in the arts through community art gallery programming. Both of us entered the Ph.D. program with the expectation that doctoral studies would enhance our practice and provide an intersection between

theoretical knowledge and practical application. As doctoral candidates, we were required to complete a portfolio in lieu of comprehensive examinations and in addition to a dissertation document. The following is a discussion of our experience in a doctoral program and we have developed a conceptual model that illustrates the construction of our portfolio component. This conceptual model may be of interest to program directors in education doctoral programs, academics interested in researching portfolios and students who might be engaged in similar portfolio requirements.

We began a series of conversations that focused on our experiences in the Ph.D. program and we discovered commonalities in our respective journeys, particularly in the culmination of our portfolio assessment. This led us to the realization that together we were exploring concepts of reflective practice and we had applied this reflection in our portfolios. Theories of reflection are wide ranging and can include everything from thinking in general about issues to thinking with specific purposes in mind. Schön (1996) defined reflective practice as thoughtfully considering one's own experience in applying knowledge to practice. For Schön (1996) the concept of reflective practice is a critical process in refining one's own artistry or craft in a specific discipline. Bengston (1995) identified three broad categories of potential meaning for the term reflection: "reflection as self reflection", "reflection as thinking" and "reflection as self-understanding." Cole (1997) asserts that reflection might be one of the most

frequently used (and misused) terms in the education vernacular. Reflection is a cognitive practice in which individuals are actively involved in addressing practical problems and contemplating possible solutions (Schön, 1987). For us, the process of reflection implied considering the meaning of the experiences that we shared, making sense of those experiences and providing explanations and possibilities for action within the context of this portfolio. Cole and Knowles (2000) emphasize the value of situating reflective inquiry within the context of our personal histories in order to understand personal influences on professional practice. For us, this reflective inquiry began with a simple conversation our doctoral portfolio experience.

The introduction of personal context into reflective inquiry has been encouraged by others such as Morley and Priest (1998) who support the notion of critical reflection on professional practice. Their conceptualization is illustrated in the Reflective Practice Model (Morley & Priest, 1998; see figure 1.) in which the reflective practitioner considers experience from two sides of an imaginary coin: a modern and a postmodern orientation. The modern orientation employs models that facilitate self-awareness, direct intervention and create new experiences. The postmodern orientation encourages the processes of obtaining new perspectives and reconstructing meaning that will enable learners to re-construct alternate meanings. Meaning is derived from the deconstruction of experiential knowledge. Morley and Priest (1998) contend that by combining these two orientations,

individuals will develop as reflective practitioners; alternatively stated, this is one's reflection on their practical experience.

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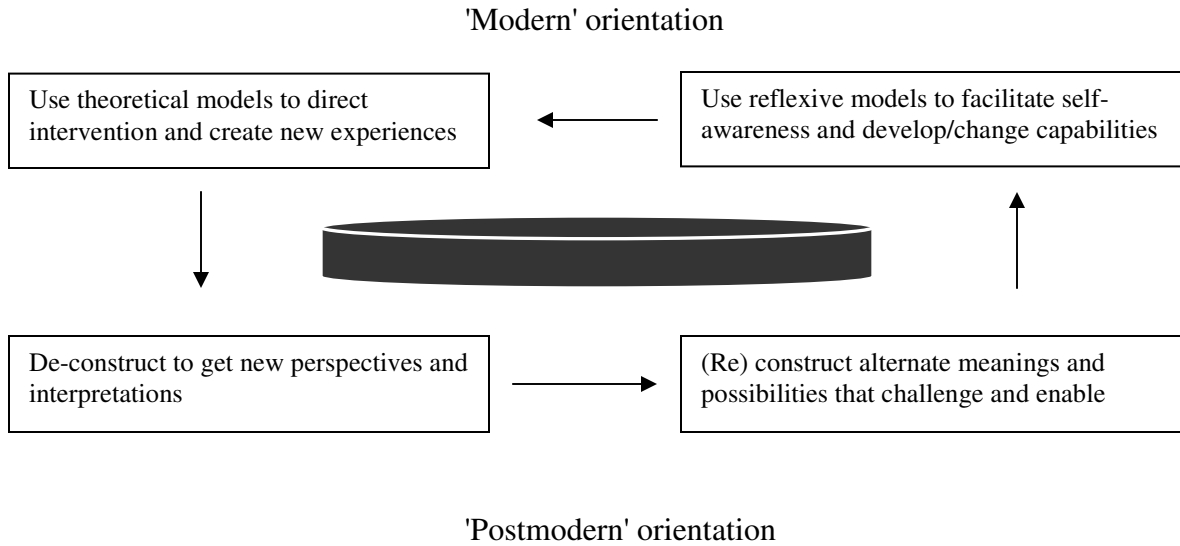


Figure 1. Reflective Practice Model (Morley & Priest, 1998)

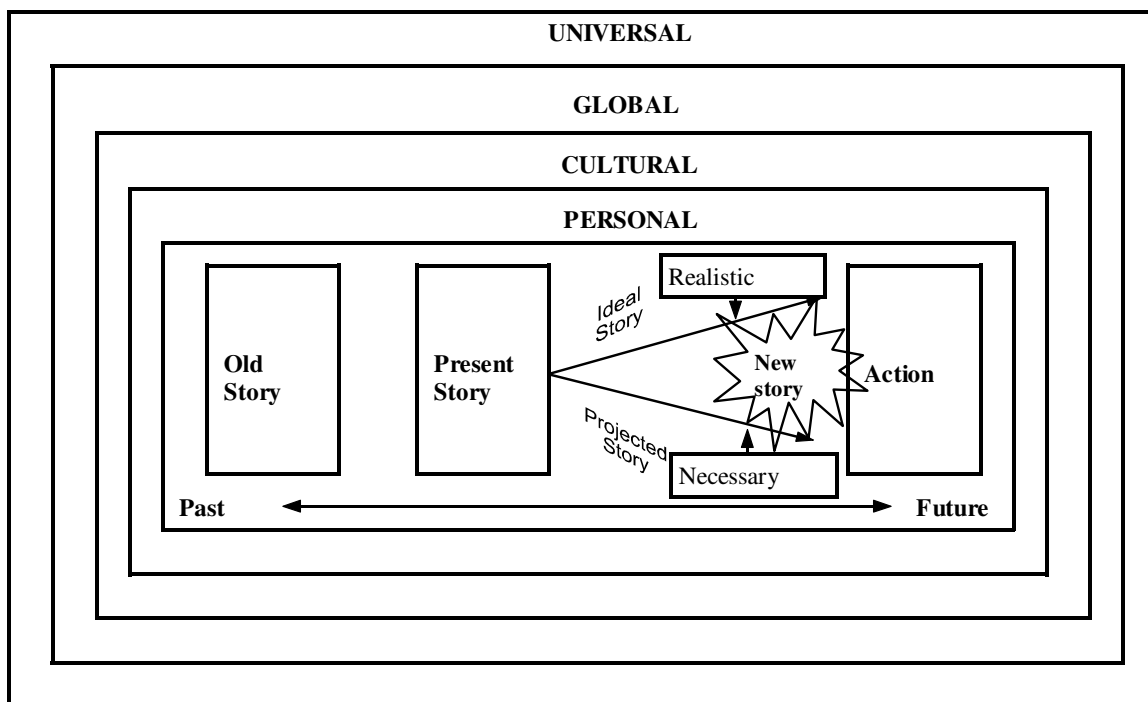


Figure 2: Story Model, from Drake (1998)

We have approached this reflective process as fledgling postmodernists who explore our respective perspectives collaboratively through our narratives. Lyotard (1979) suggests that we should reject the “grand narrative” (that is universal theories) of Western culture because they have now lost all their credibility. What we present here, in the form of our personal narratives (our own realities), is an inquiry into questions about the Ph.D. experience and how we have explored that experience through the understandings we have constructed in our portfolio. If one of the tenets of postmodernism proposes challenging the

status quo, incorporating the portfolio as an alternative to comprehensive exams as an assessment task in the Ph.D. program challenges the conventions of graduate education.

Interestingly, as doctoral candidates engaged in the portfolio process, we did not recognize the integral role of reflection until we had completed this requirement. Through self-reflection we were able link the bodies of knowledge of our respective portfolios and articulate our growth as burgeoning academics. However, now with the portfolio requirement complete, we were able to examine the portfolio process with a wider lens. This lens views the portfolio as an impetus merging our modern or theoretical knowledge with our postmodern or experiential knowledge. At this juncture, we acknowledge the ultimate worth of the doctoral portfolio and we wish to share the value that we perceive in this experience.

### **Beginning our Journey: “Acquiring” Knowledge**

We began our doctoral studies with the expectation that our coursework would provide us with the essential pieces of knowledge for graduate-level inquiry. Across our five required courses, we found that we did acquire a basic working knowledge of traditions and research methodologies. However, we would have appreciated a number of specialized courses on research design and application. Consequently, the “acquired” knowledge that we came to value was

the product of collaborative experiences that we had engaged in with other graduate students and faculty members.

Doise (1990) suggests that it is through interacting with others and coordinating our own approaches to reality with those of others, that facilitates mastery of new approaches. Collaboration is a process of exploration. Through collaboration individuals are able to construct new meanings and knowledge. This is often termed a community of practice which involves more than mere technological knowledge or skill. In a community of practice members are involved in a set of relationships that develop around particular areas of knowledge (Lave & Wenger, 1991). Lave and Wenger (1991) provide a model of situated learning that positions learning in social relationships – opportunities for collaboration. For us, collaboration led to new discoveries that incorporated our academic, professional and personal realms. For Tiffany this included collaborating on a text with her supervisor and enhancing her academic role. Debra found that her collaborations revolved around working with teachers and other arts educators to expand and improve her practice in the professional art world.

Recalling her introduction to the doctoral program coursework, Tiffany met a host of individuals with varied perspectives. At times though, she tended to feel isolated in her position and frame of reference. To compensate, Tiffany continued to maintain her contacts with community and school board

representatives and collaborated with them as a means of contextualizing her research inquiries. She recognized that her inquiries were consistently pointing toward understanding how learners construct knowledge. Tiffany realized that she needed to expand her repertoire of research skills to answer the questions that she was formulating. To further broaden her knowledge base, Tiffany took an elective course in qualitative methods, which informed and empowered her to pursue a mixed methods design in her dissertation research.

The flexibility of the doctoral course work enabled Debra to immerse herself in literature specific to her area of interest in art education. Just as Tiffany maintained her connections outside of the academic environment, Debra also framed her research within her professional activities in art galleries, museums and education. Some of the work that she produced during the first intake course facilitated a number of peer reviewed conference presentations and eventually culminated in a book chapter. Debra believed that the coursework enabled her to become more experienced in qualitative research methodologies. However, throughout her journey the most relevant and valuable experiences were the collaborative work she experienced with students and university faculty as well as art educators beyond the academic milieu. An association with a faculty member, outside of the academic context enabled Debra to expand her understanding of qualitative research methodologies and pointed her in new directions of understanding of generic research methods in the qualitative tradition. These

collaborations also provided opportunities for Debra to write and present papers with colleagues.

The final course in our program, an on-line research colloquium, was aimed at developing critical analysis skills and supporting the peer review process across all fields of study. However, we both found it challenging to provide meaningful feedback to our peers as we had all grown into specialized fields of study and we no longer shared a similar community of inquiry. At this stage in the program, doctoral candidates tend to require more refined and focused recommendations around their specific areas of research. In our program, we recognize that this may be difficult to provide given the diversity of specialties. We offer the suggestion that similar theoretical traditions be differentiated and independently examined by faculty and peers that share similar areas of expertise.

#### **Mapping the path of our journey: Theoretical framework**

Knowledge production can be articulated in the form of a narrative. Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow (1994) suggest that the first distinct narratives of knowledge production are in the university setting. This, according to Gibbons et al. (1994) is termed Mode 1 knowledge which is a closed, linear, disciplinary system. Mode 2 knowledge is defined as open, active, varied and less systematic. Mode 2 knowledge they contend, challenges the conditions of knowledge production in Mode 1. Participants in Mode 1 knowledge production are considered passive beneficiaries of knowledge while participants of Mode 2

are considered creative agents. Some contemporary views (Scott 1995, Lee, Green & Brennan, 2000) hold that Mode 2 knowledge can be relevant to professional doctorates. Further, the new forms of research generated in Mode 2 are carried out in places beyond the university and disseminated to communities other than academic disciplinary ones. The work of Gibbons et al. (1994) is the basis for subsequent discussion on the nature of knowledge production at the doctoral level.

Maxwell (2002; see figure 3) bases much of his writing on the work of Gibbons et al. (1994) and further enhances the concept of Mode 1 and Mode 2 knowledge. He describes a similar approach to constructing understanding as the building of Mode 1 knowledge and Mode 2 knowledge. Mode 1 knowledge is that which has been regarded as produced in academe – it is specific, disciplinary knowledge. This knowledge is accountable to methodologically sound research practice (Maxwell, 2003). Mode 2 knowledge evolves from practice as it is produced in the context of application (Maxwell, 2003). This reinforces the old academic/vocational debate. This knowledge is socially accountable and representative of the realities of the profession and workplace.

Mode 1 Knowledge	Mode 2 Knowledge
Knowledge that is produced and tested in the academy by <i>researchers</i>	Knowledge created and tested by <i>practitioners</i> outside of the academy
Disciplinary	Transdisciplinary
Knowing through <i>contemplation</i>	Knowing through <i>action</i>
Knowledge for its own sake	Working knowledge
Knowing <i>that</i>	Knowing <i>how</i>
Knower as <i>spectator</i>	Knower as <i>agent</i>
Propositional knowledge	Knowledge as <i>reflection on practice</i>
<i>Theoretical</i> knowledge	<i>Practical</i> knowledge
Knowledge <i>about</i> the world	Knowledge <i>in</i> the world

Figure 3. Mode 1 and Mode 2 Knowledge (Maxwell, 2002)

Viewing these ideas through a different lens, Drake (1998) discusses similar concepts but terms them old story and new story. Individuals tend to make sense of their world through storying (Drake, 1998, Drake, Bebbington, Laksman, Mackie, Maynes & Wayne, 1992). Our stories involve elements and assumptions of the old or traditional story with elements and assumptions under construction in our new story. The story model outlined by Drake et. al. (1992) and Drake (1998), provides a structure or framework through which we can understand and make sense of the world we experience and how change occurs in the world. According to Drake (1998) storying is used to signify ways of believing, valuing and acting in the world (see figure 2.). The story model provides a vehicle that can be used to understand how change occurs not only in education but also in our personal and professional lives. Drake (1998) suggests that we construct knowledge and make meaning of it through the lens of our personal story, and that is why

individuals interpret similar events differently. Our personal stories are situated within the context of our cultural story, the global story, and finally in a universal story that connects all of us as human beings.

In the story model (Drake, 1998; Drake et. al., 1992 ) the implication is that individuals seek change in order to develop both personally and professionally. To understand this change we must revisit the traditional or old story and deconstruct it to uncover the embedded assumptions. The present story encompasses the tensions between the old story and the emerging new story. The result of the reconciliation of this tension is some kind of action or change and the development of a new story.

Both Drake (1998) and Maxwell (2002) contend that the old story and Mode 1 knowledge share a number of similar assumptions: this is theoretical, produced, disciplinary knowledge about the world where the knower is a spectator. In Drake's (1998) new story or Maxwell's (2002) Mode 2 knowledge, the assumptions include: knowledge that is practical, active, transdisciplinary and reflects knowing *in* the world. By defining Mode 1 and Mode 2 knowledge as distinct, an unnatural polemic is set up that necessitates repositioning. We propose that this dichotomy is antagonistic and that an alternative model that fuses the two understandings is warranted. To exemplify the distinctions between these types of knowledge and represent the fusion that occurred in our doctoral portfolio

experience, we suggest that the terms, old story, Mode 1 and new story, Mode 2 are re-defined as acquired knowledge and applied knowledge.

These distinctions are illustrated in our Conceptual Model for the Doctoral Portfolio (see figure 4.). Here we imagine that the portfolio is a direct product of the two types of knowledge: acquired and applied. This implies that both types of knowledge contribute to the portfolio process. Acquired knowledge consists of knowledge that is obtained through interactions and collaborations with colleagues and mentors, as well as the study of theory and engagement in independent inquiry. Applied knowledge is derived from one's application of acquired knowledge in their community, professional practice and individuals' research inquiries. These two types of knowledge co-exist in academe in a dynamic fashion that is constantly perpetuating itself through acquiring knowledge and re-applying that knowledge. The portfolio should be a demonstration and validation of this dynamic.

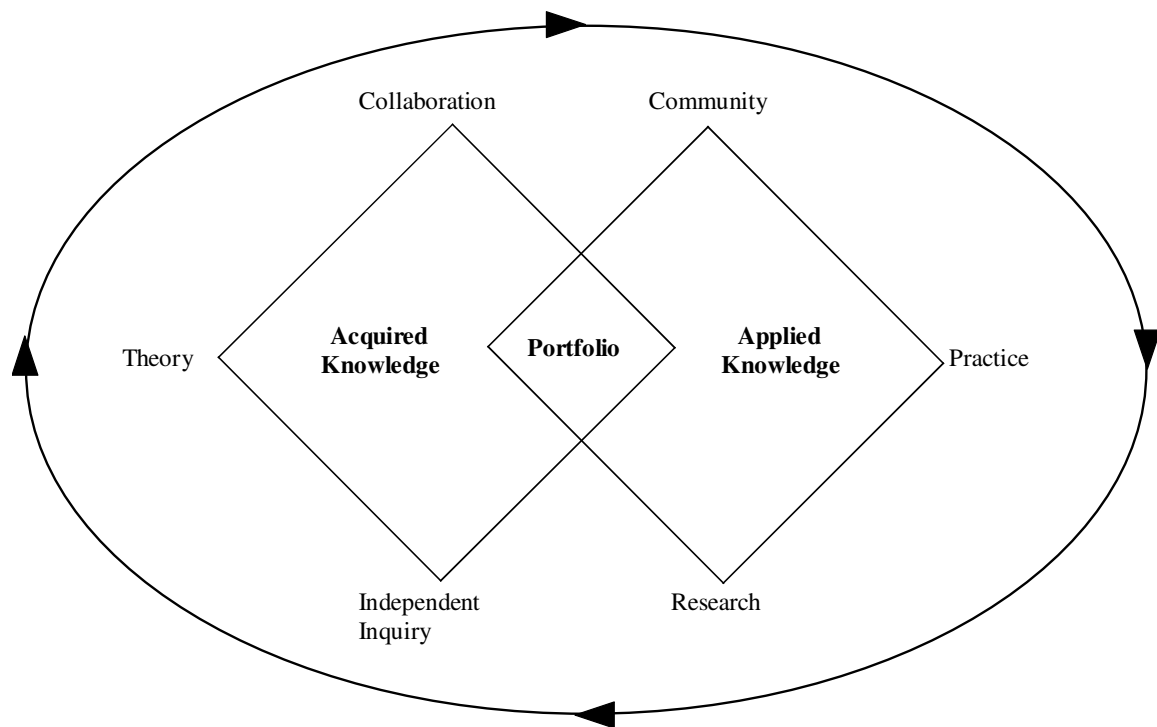


Figure 4: Conceptual Model for the Doctoral Portfolio

Our conceptual model highlights a perceived tension between the two types of knowledge. This conflict is akin to a long-standing critique of the university as the primary institution for providing disciplinary, formal types of knowledge over situated, practical types of knowledge (Lee, Green & Brennan, 2000). In Canada there is a perception that universities provide acquired knowledge while colleges enable students to develop applied knowledge. Carter (1994) sees this debate as reflecting the traditional tension between the two

cultures of theory and practice. Parallels exist in both the legal and education professions as educating students is an academic function and preparing students for their practice is a vocational/professional function. Since these two cultures seem to be opposing, this perceived tension impedes understanding.

We contend that these two cultures, theory and practice, can be melded together in a doctoral program through the portfolio, bringing the old story into the new. As doctoral candidates, we linked the old or acquired knowledge with the new or applied knowledge, thus connecting the bodies of knowledge within our portfolio experience. Interestingly, this connection did not become apparent to us until we sat down to discuss our respective experiences with this doctoral requirement and we were able to document our commonalities.

#### **Ph.D. Program Context**

Within the last decade, there has been a reconceptualization of the doctoral degree program. Historically, doctoral programs are discipline specific and focused on the thesis or dissertation as the written and oral representation of Mode 1 knowledge of the doctoral candidate (Maxwell, 2002). Research is generally conducted to contribute to academic knowledge and theory. Herein, lies the criticism that dissertation research may not exemplify a functional theory-to-practice connection (Maxwell, 2003).

A current hybrid includes professional doctorate programs which engage candidates in a program of research that contributes to knowledge and

professional practice (Maxwell, 2003). Consequently, the portfolio is a requirement in professional doctorate programs and reflects what Maxwell (2002) considers Mode 2 knowledge. Maxwell (2003) refers to this as transdisciplinary, as the candidate's research interests are likely to be from a range of possible areas. Accordingly, the curriculum of the professional doctoral program includes research and study in the university, the professional community and the work-site (Maxwell, 2002). The goal is to produce action-oriented knowledge that seeks to improve practice. It is implied that the research results will make an immediate and positive impact on professional practice.

In countries such as Australia and England, alternatives to the conventional doctoral degree program are becoming commonplace (Bourner, Bowden & Laing, 2001; Maxwell & Shanahan, 2001). The result is a shift in focus for research to contribute to evidence-based practice and for practitioners to be reflective as they continue to develop as professionals (Bourner et al., 2001). In Canada the concept of a professional doctorate is a nascent one.

The Ph.D. program we attended encouraged professionals with pre-existing careers in education to become doctoral candidates. Three areas of specialty were offered: Policy and Leadership, Socio-cultural Contexts of Education and Cognition and Learning. Program candidates were required to participate in coursework relevant to their field of study including: two core seminars, one specialization distance education course, one specialization elective

course, an on-line research colloquium. In addition, candidates were required to produce and defend a comprehensive portfolio, and finally produce and defend a dissertation. The core seminars occurred during the summer months in order to accommodate teaching professionals. A distance education course was offered for each area of specialty. The research colloquium was also offered as an on-line course and encouraged candidates to move towards research areas that they would eventually pursue in their dissertations.

### **Defining the Portfolio Experience**

As an assessment tool, portfolios have been used in a variety of ways. “In education, a portfolio can be defined as a purposeful, systematic process of collecting and evaluating student products to document progress toward that attainment of learning targeted to show evidence that a learning target has been achieved,” (McMillan, 2004, p. 235). The portfolio can be an expression of learning beyond the purpose of documenting and evaluating, “a collection of artifacts accompanied by a reflective narrative that not only helps the learner to understand and extend learning, but invites the reader of the portfolio to gain insight about learning and the learner,” (Porter & Cleland, 1995, p. 154). Portfolios are widely used by classroom teachers to assess their students and as an assessment of teachers’ professional practice.

Maxwell (2003) envisions a parallel between the art portfolio and the doctoral portfolio. He suggests that in the construction of a doctoral portfolio the

key concepts are purpose and audience – the same might be said of a doctoral thesis. The connection that Maxwell makes between the artists' portfolio and the doctoral portfolio resonates with Debra who is an artist and arts educator. In the development of an art portfolio the artist makes specific judgments as to the intended audience. If the portfolio is developed in order to apply for exhibitions or exhibition grants, it might consist of artwork which focuses on a single particular subject area, medium or time period of work. If the aim of the portfolio is to demonstrate the versatility of the artist, the portfolio might include a wide variety of mediums and styles of work from both past and present with an aim to impress potential clients. If the portfolio is intended for sales, artists might pre-select what they would consider saleable work and eliminate work that might be deemed to be experimental or conceptual. Walker (1998) suggests that a portfolio is focused around a specific purpose and particular audience. Maxwell (2003) asserts that just like the artist, the research should incorporate graphics, prose, video and audio to show the degree of mastery. In either case, Maxwell (2003) contends that the portfolio performs the function of demonstrating one's capabilities and accomplishments.

Existing literature (Maxwell, 2002, 2003; Maxwell & Kupczyk-Romanczuk, 2004) contends that the portfolio can be an authentic and valuable requirement for doctoral candidates. The base of authenticity is in the notion that, by design, the portfolio encourages doctoral candidates to explore personally

relevant questions and research a host of topics. It is believed that this experience mirrors the reality of the role of the academic: professionals are required to possess varied competencies (Maxwell & Kupczyk-Romanczuk, 2004). The portfolio has the potential to encourage doctoral candidates to develop not only a depth of knowledge in a chosen field, but also to apply the knowledge acquired during coursework into practice. This may provide a breadth of experiences within the program which will extend beyond the doctoral program. In a sense, the portfolio is a map that details both the established and uncharted landmarks of the doctoral candidates' journey. The journey presented here is our story of acquiring and applying knowledge in the context of our doctoral experience.

The design of a doctoral portfolio may vary in composition. For programs, such as those at University of New England, Ed.D. program (Maxwell, 2002), the doctoral portfolio is the final product of the doctoral journey and a demonstration of research in the work place. A portfolio may represent a series of research questions that are embedded in the candidate's professional practice. In this way, the candidate produces a series of shorter projects that are directly related to their professional interests (Maxwell, 2002) with the portfolio has the potential to demonstrate breadth of communication (Maxwell, 2003). In the end, this culminating research is influenced by the rigour of academe as well as the candidate's profession at large.

### **Our Portfolio Path**

Within our doctoral program, the portfolio and oral defense of the contents are a requirement that is to be completed before the dissertation research can begin. We viewed the doctoral portfolio as an essential component of our graduate studies. Some doctoral students attack the portfolio components with a smorgasbord approach that lacks unity and coherence (Maxwell, 2002). We approached the portfolio and the presentation in different ways and interconnected the elements to develop an overall unity. Similarly, Boyer (1990) suggests that the portfolio demonstrates the scholarship of integration giving meaning to isolated facts, putting them into perspective, making connections across disciplines, placing the specialties in larger context, illuminating data in a revealing way, and often educating non-specialists. Inherently, we adopted an overarching framework that was a common thread in our portfolio task endeavors and we linked our tasks in a meaningful manner. For us, this highlighted the connection between “acquired” knowledge and “applied” knowledge. Considering our respective journeys, this approach melded all components of our doctoral studies and enabled us to successfully complete this component.

### **The End of the Portfolio Path**

Finally, for us, the culminating piece of the portfolio is the dissertation research proposal. The portfolio defense encouraged us to refine and focus on the

proposal in preparation for the actual dissertation. We hold that the combination of both the portfolio experience and the dissertation experience are necessary for the development of new scholars. Maxwell and Kupczyk-Romanczuk (2004) suggest that the professional portfolio is a legitimate alternative to the dissertation. However, the portfolio experience may provide doctoral candidates with a breadth of knowledge and the dissertation experience may allow for depth of focused inquiry. This combination can inform beginning scholars about the intersection and continued need for balance between their “acquired” and “applied” knowledge.

### **Implications and Recommendations**

We contend that within our portfolio document, the deconstruction of our experiential knowledge and construction of alternative meanings were done in the context of our respective research and professional communities. Context is fundamental to the knowledge building process for the doctoral candidate (Maxwell & Shanahan, 1997) and for learners at all levels of education (Driscoll, 2000). In particular, the social contexts of learning impact on the mutual construction of knowledge of the world (Palincsar, 1998). Drake (1998) and Drake et al. (1992) maintain that our personal stories are situated within the context of the larger cultural, global and universal stories. This social constructivist interpretation holds that individuals learn and construct understanding with reference to their social context (Driscoll, 2000). In this

manner, knowledge is constructed based on experience and reflects the world as filtered through one's beliefs and interactions with others. Furthermore, the social constructivist approach emphasizes that learning takes place in the context of meaningful activity (Driscoll, 2000). Thus, learning in context is individual to each doctoral candidate as they delve into the specificity of their area of study and seek to extend their inquiry into a broad social, political and economic context (Maxwell & Shanahan, 1997). As doctoral candidates, the portfolio process enabled us to make that connection between our area of study and a broader social context. However, we did this instinctually in the portfolio and it is essential for this connection to be made explicit to future candidates who are in similar programs.

In doctoral programs that include the portfolio as an assessment tool, the purpose of the portfolio (in juxtaposition to the coursework) must be made clear to doctoral candidates. We believe that it is essential for doctoral supervisors to initiate conversations with candidates that explore the connectedness of the portfolio tasks. At times, coursework can be viewed as an amalgamation of knowledge that lacks cohesion and does not propel the student forward in their area of research. Doctoral students need to be made explicitly aware of the purposes of coursework “acquired” knowledge and portfolio-generated “applied” knowledge. This connection is a significant learning outcome and without this

explicit link we believe there may be a perceived disconnect between coursework and portfolio tasks.

There is value in a description of how the coursework and portfolio tasks are connected. If the link is articulated in a paper or conceptual framework that forms part of the narrative of the oral defense of the portfolio, then the connections are made clear to both the audience and the doctoral candidate. More importantly, the conceptual framework can be built on an intersection of philosophy, theory, and application that connects the coursework to the portfolio and on to the dissertation. In this model, the articulated framework was an essential component in the portfolio defense. The portfolio experience may provide doctoral candidates with a breadth of knowledge and the dissertation experience may allow for depth of focused inquiry. Taken together, these components have the potential to provide new scholars with a combination of “old” story and “new” story (Drake et. al, 1992). In our Conceptual Model for the Doctoral Portfolio, the portfolio facilitates the merging of “acquired” and “applied” knowledge.

This connection cannot be facilitated without institutional and supervisory support; therefore, doctoral student advisors should encourage their students to be self-reflective in order to understand how to connect the components of a portfolio. A deep understanding of one’s philosophical perspectives would fuel

this connection. It is valuable for doctoral candidates to realize that the individual informs the portfolio which reflects one's practice.

The importance of the academic supervisor cannot be underestimated. The supervisors, by nature of their role, know about scholarship. Doctoral supervisors might go beyond this basic role to encourage candidates to make connections between "acquired" and "applied" knowledge and to think beyond their areas of expertise. The role of the supervisor in the development of the portfolio document may include:

- Thorough understanding of the components of the portfolio and the presentation of the portfolio;
- Ability to guide candidates in directions which will encourage them to make relevant personal and professional decisions around what to do in the program, in their professional communities and beyond the program into academic life;
- Explicit directions in the early planning stages of the dissertation.

The development of the portfolio is a cumulative process rather than an assortment of artifacts compiled at the end of a program. The portfolio should exemplify the culmination of a continuous journey which requires clear direction from the outset.

Taken together, the portfolio and dissertation experiences have the potential to provide new scholars with a combination of rigour or "old" story and

relevance or “new” story. Doctoral candidates striving to connect their “acquired” knowledge with their “applied” knowledge, require a context in which to present and embed this association. The production of knowledge in context facilitates research that can be applied in social and political contexts (Maxwell & Shanahan, 1997). This knowledge will assist in refining the judgment and discretion of the doctoral candidate and others in the field. This is meaningful as it is contemporary and practical research.

Institutions might consider inviting graduate students and other stakeholders from outside of the academic community to participate in portfolio defenses. For graduate students, the benefit of witnessing a portfolio defense lies in the value of understanding the process of linking “acquired” knowledge with “applied” knowledge. Graduate level studies often focus on providing students with “acquired” knowledge which includes theory, independent inquiry and collaboration. Portfolio defenders are modeling how to connect portfolio tasks and articulate the link between “acquired” knowledge and “applied” knowledge; parsimoniously, this is an explicit connection between theory and practice. Stakeholders may benefit from the dissemination of portfolio contents based on the research explored within these components. Community, practice and research are the extensions of “applied” knowledge.

Similar to others (e.g., Walker, 1998), we recommend that the portfolio work be heavily informed by the coursework. We take this one step further and

suggest that the portfolio be informed by previous research where doctoral candidates reflect on the professional, academic and personal practice. The process of reflection is a process that involves reviewing and thinking critically about our activities in the world. According to Schön (1995) the focus of reflective practice is to generate improvement in professional practice. Schön (1995) advocates that learning is dependant on an integrative experience that includes the amalgamation of reflection and of theory with practice. Reflection is essential in the learning process and the portfolio is a document that explores this concept of reflection. Schön (1995) speaks of a scholarship of integration as a synthesis of findings transformed into comprehensive understandings. This bricolage is conducive to inspiring individuals throughout the learning process.

We view the doctoral portfolio as the connecting piece to link coursework or “acquired” knowledge with research driven “applied” knowledge. Thus, we contend that the portfolio can act as a precursor to the dissertation as it advances the doctoral candidates’ ability to demonstrate both “acquired” and “applied” knowledge. For us, this unique inclusion of the portfolio component enabled us to position ourselves as professionals in the community of scholars. However we believe that it is imperative to go beyond a community of scholars to position the portfolio experience within the community of practitioners where the research is situated. In this way, it is possible to relate the portfolio experience to the audiences of co-workers and other stakeholders (e.g., teachers, school

communities); other professionals and academics (Maxwell, 2002). Accordingly, our conceptual model fuses the two bodies of knowledge that we have termed “acquired” and “applied.” By inviting these audiences, into the portfolio process, we as scholars, may extend the research into a larger milieu of knowledge and practice and thus connect the community to the academy.

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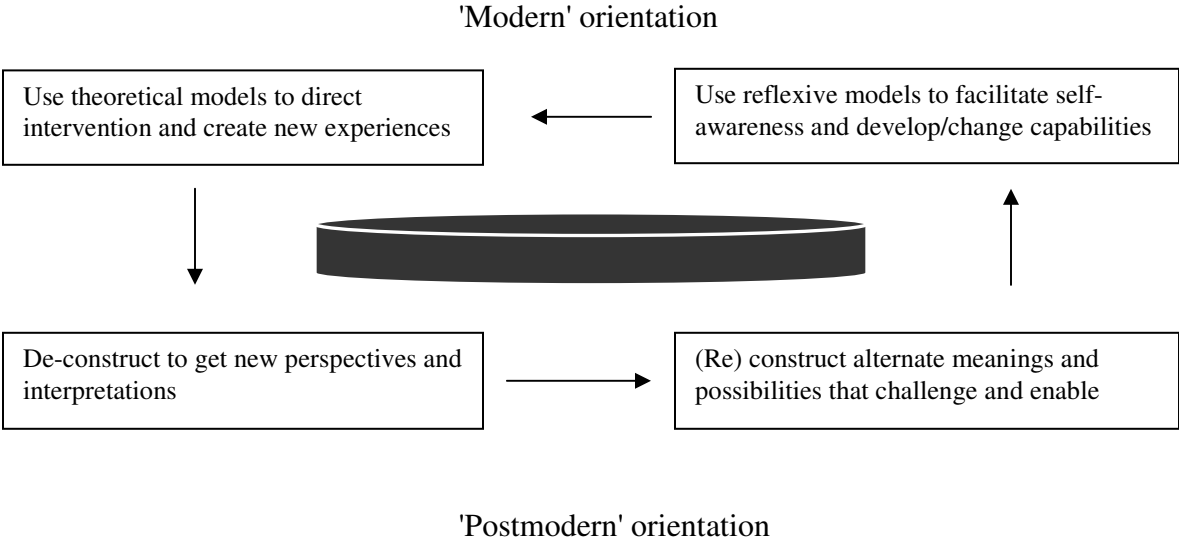


Figure 1. Reflective Practice Model (Morley & Priest, 1998)

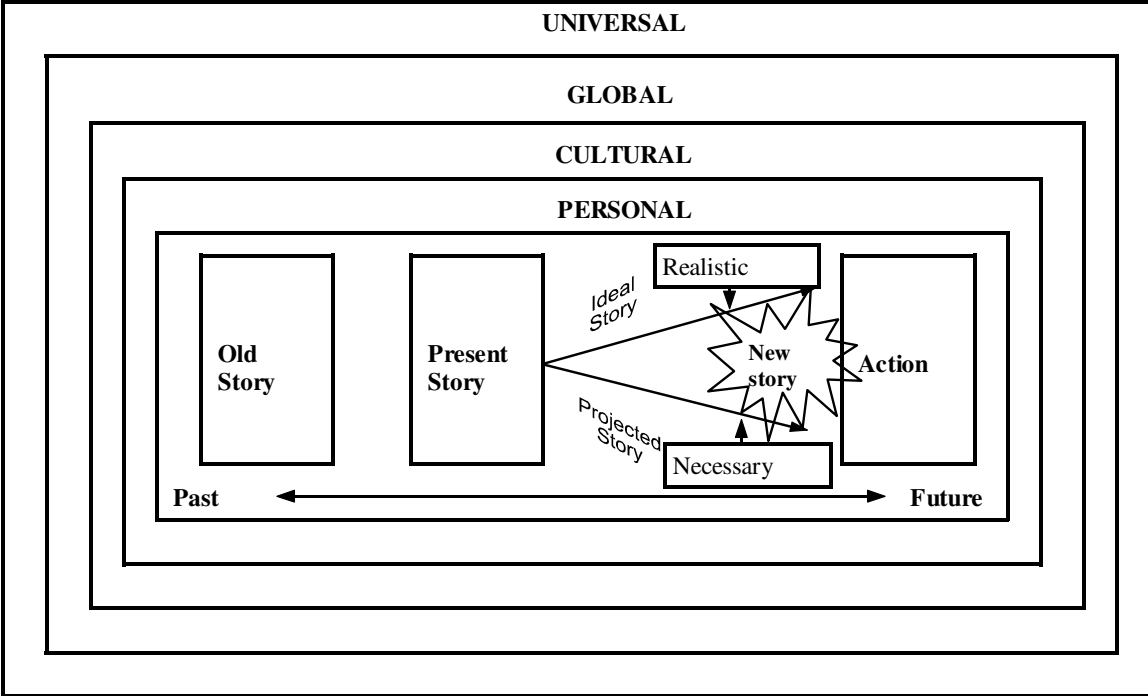


Figure 2: Story Model, from Drake (1998)

Mode 1 Knowledge	Mode 2 Knowledge
Knowledge that is produced and tested in the academy by <i>researchers</i>	Knowledge created and tested by <i>practitioners</i> outside of the academy
Disciplinary	Transdisciplinary
Knowing through <i>contemplation</i>	Knowing through <i>action</i>
Knowledge for its own sake	Working knowledge
Knowing <i>that</i>	Knowing <i>how</i>
Knower as <i>spectator</i>	Knower as <i>agent</i>
Propositional knowledge	Knowledge as <i>reflection on practice</i>
<i>Theoretical</i> knowledge	<i>Practical</i> knowledge
Knowledge <i>about</i> the world	Knowledge <i>in</i> the world

Figure 3. Mode 1 and Mode 2 Knowledge (Maxwell, 2002)

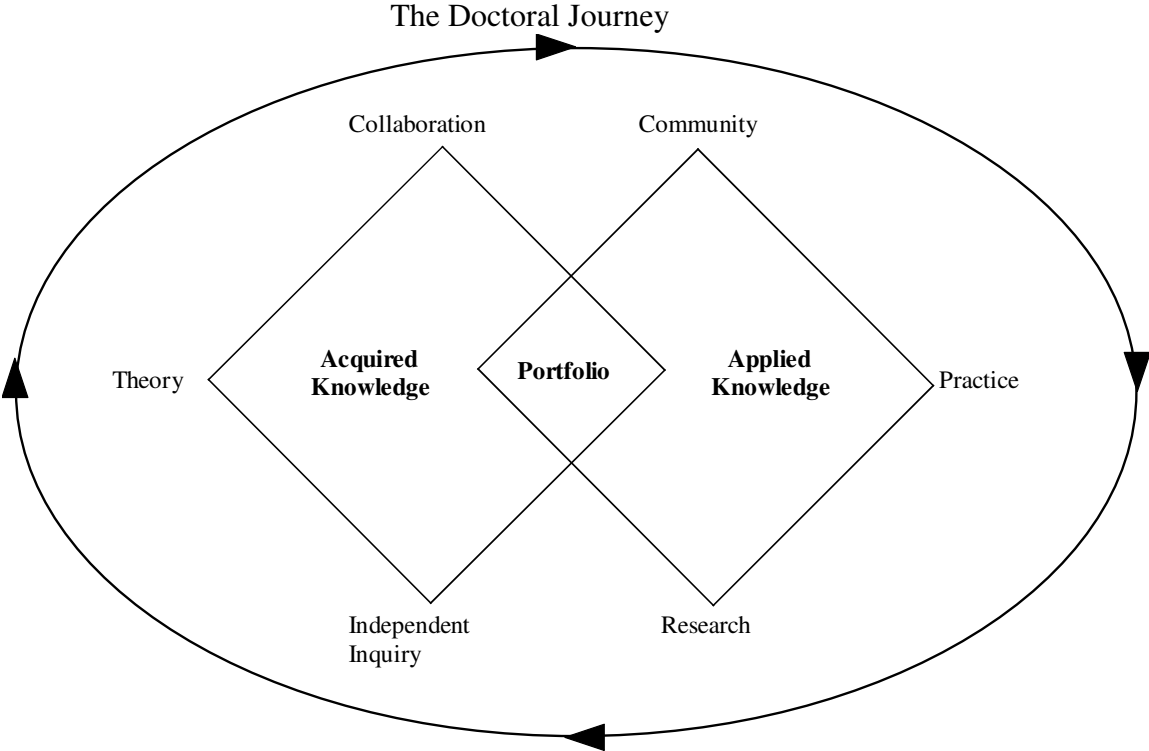


Figure 4: Conceptual Model for the Doctoral Portfolio