

**‘INCITE, THEN DELIGHT’:
INVESTIGATING NEEDED COOPERATIVE INFORMATIVE TECHNOLOGY
EXPERIENCES (INCITE), THEN DEVELOPING EXPERIENTIAL LEARNING IN
GUIDED HOLISTIC TEAMWORK (DELIGHT)**

by

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Abstract

This research began from an educational technology lab coordinator's personal curiosity and professional endeavour. In the lab, adult learners demonstrated three resistant actions deemed detrimental to learning: constrained social/co-presence, resistance to new technologies, and external loci of focus to learning. The intent was to investigate what cooperative information technology was used by adult learners in an Elementary Teacher Education Program (ETEP) throughout their course and what holistic approach would then guide group learning. Thus, the thesis is titled: INCITE (Investigating Needed Cooperative Information Technology Experiences), then DELIGHT (Developing Experiential Learning In Guided Holistic Teamwork). Based on social learning theories, the research hypothesis stated the chaos and complexity within ETEP activated constrained social interactions, caused performance reduction, and increased the possibility of members dropping out, either physically or spiritually.

The research design collected data with a mix of quantitative and qualitative methods. Rovai's (2002a) Classroom Community Scale (CCS), Hammer's (2009) Intercultural Development Inventory (IDI), descriptive statistics, and semi-structured interviews tested the hypothesis. ETEP participants' responses texturally described the structural descriptions of Aoki (2000), Pinar (2009), and Wenger (1998) where curriculum emerged as both "curriculum-as-plan and curriculum-as-live(d)" (Aoki, 2000), sustainable teaching-learning solutions answered Pinar's (2009) "key curricular question — what knowledge is of most worth?" when ETEP adult learners developed praxes and collaborative reflective practices, and curriculum design required individual and collaborative activities with assessments that are flexible, fast, and fluid to "learn a practice" (Wenger, 1998).

The hypothesis was proven partially incorrect. The interviews revealed the resistant actions to be coping mechanisms for, rather than detrimental to, the teaching-learning environment. The data collection suggested a greater emphasis on face-to-face activities rather than technology-based activities. As a result, the INCITE of ETEP participants' responses and then the DELIGHT of this study offers a community of practice to support online learning activities, guide ETEP adult learners' self-directed priorities, enhance community relations, and assist the transformations from adult learners to pre-service teachers. Future enhancements to this research design include intercultural training and extending the population and timelines to provide additional data collection and periods when adult learners are on-campus.

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*Although not a boy,
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Two distinctions I carry with pride.
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Sometimes too heavy a load,
But I've loved every bit of our ride!*

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*Without your nudges, winks and loving support
Including our laughter of your timely jokes,
I would have been packed and ready to deport
Lamenting such folly with 'That's all Folks!'*

XOXOXO

Glossary and acronyms

Action: One of a series of identifiable, brief changes/activities occurring at regular intervals and when implemented has a characteristic geometric shape when plotted on a graph. In project-based or action research, a typical social change begins with diagnosis of a particular problem or situation, change agents then develop and prescribe an action plan, implement the action plan, and those involved evaluate it to determine if it is producing the desired change (Stoecker, 2005, p.8)

Blended Learning: a mix of face-to-face (FTF) and technology-based learning strategies determined by the transference of traditional didactical methods to technology-based media (Kerres & DeWitt, 2003, p. 101)

Cloud Intelligence: an approach to globalization where “complex connectivity” or mesh-works gives new and distinctive knowledge that is fluid, flexible, and power reshaping (Other approaches: structuralist [global capitalism, digital technology, and a ‘new’ colonizing] or global/local dialectic [global/local interactions and inflections]) (Apple, Kenway & Singh, 2005, pp. 2-3)

C/LMS: Communication and Learning Management System, such as Blackboard or Moodle

Collaboration: a learning method that uses social interactions as a means of knowledge building where a group of two or more work towards a common goal while respecting each individual’s contribution to the goal (McInnemey & Roberts, 2004, p. 205)

Community-Service Learning: Linkage of any discipline or combination of academic study and community service through structured reflection reinforcing one with the other. “CSL programs are most effective when they include key elements drawn from experiential education theory, especially developing critical thinking and intentionally

facilitating reflection.” (Canadian Alliance for Community Service Learning, 2010, para. 2)

Convergence: coming to an agreement or consensus; thereby building discourse (Sorenson, 2004, p. 248)

Cosmopolitan education: an ongoing self-reflection associated with solitude while engaged with others in the world (Pinar, 2009, p. ix)

ETEP: Elementary Teacher Education Program

Inquiry-based Learning: Self-Directed learning following four basic steps: 1. determination of required learning (trigger event) 2. resource and learning style identification (exploration) 3. choice of resources and reporting (integration) 4. assessment as learning: adult learners assessing their progress in learning (resolution) (Garrison, Anderson & Archer, 2000, p. 6)

Institution: any governing educational body that overarches the blended learning environment

Leader: One having complementary knowledge, information, or experience that supports the teaching-learning environment

OERs: Open Educational Resources — materials made freely available online for educators and learners to use, repurpose, and extend (Siemens & Tittenberger, 2009, p. 47)

OLC: Online Learning Community — a no-boundary model for a classroom-centred learning community consisting of students, teachers, and other resource experts. In this scheme, activity is centred around the problem itself. (Kaufman, Kelly & Ireland, 2008, p. 482)

PLEs: Personal Learning Environments — Social technologies often seen (and used) as an alternative to a learning management system (LMS). Through the use of Google Docs, Skype, blogs, wikis, podcasts, Flickr, YouTube, Del.icio.us, and other tools, a rich learning experience often exceeds the static experience of a learning management system, or LMS. (Siemens & Tittenberger, 2009, p. 14)

PLNs: Personal Learning Networks — the aggregated network of blogs and other news sources is the key element in learning developing a framework for participatory ‘sense making’ and network filtering and not the content experienced at a particular time or course (Siemens & Tittenberger, 2009, p. 32)

Praxis: reflection and action directed at the structures to be transformed (Freire, 1986, p. 126)

Resistance: the ‘cost of learning’ involved for an adult in ‘changing their ways’ or knowledge (Atherton, 1999, p. 78)

Threshold concepts: A threshold concept is seen as something distinct within what would typically be described as ‘core concepts’; that is, more than a building block. A threshold concept is one that, once grasped, leads to a qualitatively different view of the subject matter and/or learning experience and of as oneself as a learner...once understood, experiences lead to changes in perception of the subject and a possible shift in identity (Kiley & Wisker, 2009, p. 432).

1. Chapter One: Introduction

The key curricular question — what knowledge is of most worth? — is a worldly question; it is posed by individuals existing at specific historical moments, in particular places, confronted by, infused with, reality that is ever shifting, in part according to our engagement with it. ~ Pinar, 2009, p. vii.

1.1. Research synopsis

Looking specifically at a professional teacher education program at a research university, the hypothesis of this research stated the chaos and complexity within a professionally designated teaching-learning world activated constrained social interactions, caused performance reduction, and increased the possibility of members dropping out, either physically or spiritually. This hypothesis was derived from three sources, including a personal observation, a professional practice, and a literature review. This research journey began from both personal curiosity and a professional need in my job as an educational technology lab coordinator, where I searched to find better ways to support adult learners in professionally designated programs. In the lab, I frequently observed that many adult learners struggled with integrating new technologies into their learning and professional education, particularly with regard to peer to peer social interactions and motivation to upgrade basic computer literacy skills.

Based on social learning theories, a literature review helped me to develop a structural description of 21st century collaborative blended learning supporting the triad of adult learners, educators, and leaders. Within quickly changing (and usually chaotic) globally constructed surroundings, rapid changes in classroom dynamics have been influenced by global interconnectivity and created what is being called “cloud intelligence” (Downes, 2009b). Knowledge sharing practices via the Internet have also impacted the predictability of a group exhibiting an equivalent deep learning outcome or common learning experience

within imposed course timelines (Anderson, 2003). Therefore, the research design included a variety of quantitative and qualitative methods to collect data. A combination of Rovai's (2002a) Classroom Community Scale (CCS), Hammer's (2009) Intercultural Development Inventory (IDI), descriptive statistics, and semi-structured interviews was selected to check for possible personal bias.

The research focused on two volunteer groups of adult learners in a two-year elementary teacher education program (ETEP) and looked specifically at how they contextually described Pinar's (2009) "key curricular question — what knowledge is of most worth?" ETEP resided in a Faculty of Education within a research institution. The blended program delivered face-to-face and technology-based activities. For the study, both groups participated during the same period, September, 2009 to April, 2010. One group completed their first year of the two-year program while the second group completed their second year. The field of phenomenology framed the qualitative inquiry deriving "the meaning for several individuals of their *lived experiences* of a concept or phenomenon" (Cresswell, 2007, p. 57, italics in original quote). This inquiry provided two descriptions of a phenomenon, one structural and the other, textural.

The structural description is developed over the first two chapters describing two parts of the curriculum's structure. This first chapter frames the participants' teaching-learning world. The second chapter theorizes a structural description developed through a literature review. Chapter three reviews the mixed-method data collection and the purpose of phenomenology. Data collection methods include each group's demographics, past school, work, and community experiences, intercultural development, perceptions of a classroom

community, and individual semi-structured interviews. A moderated online activity from a specific course was chosen and focused the participants' answers to these questions:

Main Question:

Once an online learning activity is established, what specific actions/activities provide the greatest influence on connecting what adult learners, educators, and others do?

Supplemental Questions:

- Who leads these actions: adult learners, educators, or others?
- How could these actions be integrated into similar communities?
- What resistances stand in the way of these actions?
- What can be done about these resistances?

Reference to 'others' in these questions means the campus services that support an online learning activity. The third chapter bridges the structural descriptions in the first two chapters with the textural descriptions in the final two chapters. The fourth chapter presents the participants' diversity through descriptive statistics and data collection results. The description includes how this diversity triggers chaotic and complex interactions identified as impeding social cohesion or transformative experiences. These actions are the three identified in the hypothesis: constrained social participation, resistance to new technologies, and external loci of focus to learning (Anderson, 2003; Atherton, 2009; Wenger, 1998). The final chapter completes the textural descriptions and provides new perspectives for curriculum design and subsequent research design.

The textural descriptions are based on individual responses of ETEP adult learners during their semi-structured interviews. Through these discussions, participants described the actions I had observed as coping mechanisms, rather than resistances to learning as I had

hypothesized. The ETEP participants' collective voice confirms Aoki's (2000) explanation of "two understandings of curriculum: curriculum-as-plan and curriculum-as-live(d)" (p. 322). Aoki illustrates the way learners become attuned to new ideas and practices as analogous to Leonard Cohen's refrain in *The Anthem* "...a crack in everything; that's how the light comes in..." (p. 321). Without learning, collaboration, and critical reflection, adult learners do not have the opportunities to find their personal connections with the curriculum.

Other parts of the textural descriptions provide ways to sustain curriculum design and to indirectly answer Pinar's (2009) "key curricular question — what knowledge is of most worth?" Finally, the ETEP participants voice a need to "learn a practice" (Wenger, 1998) with a variety of individual and collaborative learning activities, reflective practices and assessments that are flexible, fast, and fluid. An example of a community of practice demonstrates the study's findings and the need for social presence/co-presence, actionable knowledge domains, and praxes (reflections and action plans) defined by each community member (Wenger, White & Smith, 2009). The example also includes community service learning projects transforming the learning experience to a 'just learning' community of practice (Welton, 2005).

Consequently, the INCITE (Investigating Needed Cooperative Information Technology Experiences) of the structural and textural descriptions with the DELIGHT (Developing Experiential Learning In Guided Holistic Teamwork) of the new perspectives of curriculum and research design reveals the importance of building relationships and learning practices. One mechanism to support these new perspectives is a community of practice providing authentic experiential activities, like community service learning (CSL) projects, to identify the diversity and address the chaos and complexity within a cohort (Stoeker, 2009).

The remainder of this chapter provides a framework to explore Pinar's (2009) statement that "[t]he key curricular question — what knowledge is of most worth? — is a worldly question". This framework begins with a structural description of the adult learners' activities in a blended learning environment. The face-to-face activities provide the background with three components: program content, two unique teaching-learning environments, and a blended teaching-learning world. The technology-based activities move the adult learners beyond an institutional Communication/Learning Management System (C/LMS), such as Blackboard or Moodle, to global interconnectivity. The impact of such a 'virtual' move includes first, knowledge expansion to "cloud intelligence" (Downes, 2009b), second, curriculum conflicts with social construction and cohort cohesion, third, adult learners' resistance to new knowledge, and finally, reflective practices with cosmopolitan viewpoints. Pinar (2009) describes cosmopolitan viewpoints as "an ongoing self-reflection associated with solitude while engaged with others in the world" (p. ix). The need for and limitations of the research follows. Finally, a design summary shows a diverse group of adult learners answering the key curricular question and causing chaos and complexity.

1.2. Background for the research

In the early 20th century, professionally designated curriculum moved 'siloe'd', or isolated, cohorts through teaching-learning activities. The uniform design of these activities regulated transformations from adult learner to professional. In the discipline of K-12 education, on-campus courses and in-school practicum experiences transformed the adult learner from a pre-service to an in-service teacher. Two teaching-learning environments were integrated with the first, on-campus courses with educators and the second, in-school practicum experiences with sponsor teachers and faculty sponsors. Both teaching-learning

environments assessed adult learners' teaching abilities to appropriately integrate K-12 curriculum, demonstrate effective in-class practices, and exhibit professional standards.

1.2.1. Content: K-12 curriculum

An American K-12 education reformer, Neil Postman (1995), posited teachers should give their students a reason to learn and the means to meet learning outcomes. His reform bound a largely homogeneous society. Classroom practice and knowledge sharing were constructed in a predictive pattern to meet group learning outcomes. In these classrooms, the teacher dispersed the content through lecture or worksheets and collected by learners. Then, the same content was collected through summative assessment by the educator (Brookfield, 2006). However, as the educational and economic initiatives moved from the Industrial to Information Age, the K-12 classroom began to change.

The predictive nature of group learning diminished due to learning differentials, behavioural challenges, and intercultural dynamics within a K-12 classroom. First, K-12 classroom construction diverged from a single hierarchical flow of teacher-centred education into a panorama of complex flatly distributed multi-flow systems of student-centred activities through independent educational programs. Second, if K-12 classrooms were permeated with hybridized courses and used student-centred learning, knowledge sharing between a K-12 teacher and students replaced the K-12 teacher's primary role of content expert. Finally, K-12 classroom management skills became the key to K-12 classroom cohesion with knowledge sharing diverging. Yet, for adult learners in on-campus courses with other adult learners, the importance of K-12 classroom management was difficult to convey.

For example, each adult learner in a group before their peers to practice a lesson plan experienced some stress and required few classroom management skills. An adult learner

placed in front of a K-12 class to present a lesson plan experienced more stress and required classroom management skills specific to the K-12 classroom environment. The explicit knowledge, described as a learning outcome in each situation, remained constant; however, the tacit knowledge, described by Postman (1995) as a reason and means to meet the learning outcome, varied in the K-12 classroom. The K-12 classroom variances depended on how the sponsor teachers constructed their classrooms before the adult learner arrived.

The K-12 curricular experience demonstrates two practices. First, a closed practice, on-campus courses, establishes a system of governing bodies represented by an educator developing the adult learners' skill sets with K-12 learning outcomes and foundational skills assessment. Second, an open practice, in-school practicum experiences, establishes a system of inclusive K-12 classrooms and independent learning requirements creating a diverse K-12 class of learning styles, behavioural challenges, and cultural diversity. Each practice creates a unique teaching-learning environment for the adult learners, both as a cohort and individually.

1.2.2. On-campus courses

In on-campus courses, educators and adult learners navigated two knowledge dimensions: explicit and tacit. Explicit knowledge provided content that is easily conveyed, written down or verbalized in a single lesson plan during a class. The explicit knowledge progressed to higher-order cognitive skills where K-12 subjects and tasks are integrated into a series of lesson plans or integrated resource packages. Not as easily conveyed, tacit knowledge was internalized through reflective activities giving voice to one's practice and philosophy within the standards and ethics of the larger professional culture. Current research prescribes a sustained practice of critical reflection to assist adult learners while developing

and mastering both knowledge dimensions: explicit and tacit (Barrett & Wilkerson, 2004; Brookfield, 2005; Darling-Hammond, 2006).

Social learning theorists describe many divergent models to design a curricular system's infrastructure to include critical reflection to support the learning of explicit and tacit knowledge. Where these educational researchers and practitioners agree, or converge, is the creation of a cohort, or group of adult learners. A cohort encourages the development of social presence, personal recognition of each member within a cohort, and maintenance of co-presence, social cohesion throughout a cohort. Social educational theorists consider these relationships, social presence and co-presence, essential to professional and cognitive development. For example, social constructivists posit adult learners construct new knowledge with others by adding new learning to a personal scaffold of past knowledge and experiences. To scaffold the construction of this new learning within a cohort, curriculum design introduces group work throughout instructional strategies, assessment, learning perspectives, and critical reflection practices (Irwin & Berge, 2006; Rovai, 2002b). Further research, as described below, develops a teaching-learning framework and advances the adult learners' learning and professional development by generating social energy, actionable knowledge, and universal design for learning (Rose & Meyer, 2008).

An American social learning theorist and practitioner, Wenger, credited with the formulation of situated cognition with Jean Lave, has researched the field of communities of practice and most recently digital habitats (Wenger et al, 2009). Wenger (1998) states: "[d]esign for learning must generate social energy at the same time it seeks to direct this energy. It must set up a framework, but it depends on this framework being negotiable in practice..." (p. 235). Wenger's (1998) design for learning supports and respects three

underlying tenets of universal design for learning (Rose & Meyer, 2006). First, a cohort of adult learners experience learning in a variety of ways. Second, a group process actively engages in acquiring “actionable knowledge” (Siemens, 2009). Finally, the group’s learning is expressed according to a convergence of individual strengths, experiences, and goals for the course (Pliner & Johnson, 2004).

A theorist on learning and co-developer of connectivism with Stephen Downes, Siemens (2006), equates actionable knowledge to learning that “can reside outside ourselves (in an organization or a database), is focused on connecting specialized information sets...” (p. 4). However, what is seen as ‘actionable’ for one adult learner may not be noticed by another adult learner. Added to Wenger’s (1998) “design for learning”, a collaborative group of adult learners negotiate the specialized information sets. Siemens (2006) states that “the connections that enable us to learn more [when considered] more important than our current state of knowing” (p.4). For example, two adult learners visit a dairy farm to create a lesson plan. If the first adult learner was raised on a dairy farm, milking a cow would not be considered a ‘specialized information set’; whereas, if the other adult learner was raised in the city and had never seen a dairy farm, the whole experience, including milking a cow, would be considered ‘a specialized information set’. One influence to actionable knowledge is the familiarity or unfamiliarity of an experience or community. However, this influence is countered by adding prompts to the teaching-learning environment. Once again at the dairy farm, two prompts are introduced. Either the two adult learners collaborate on the lesson plan or the educator distributes a project-based checklist. These prompts instill a new perspective of ‘specialized information set’ for both adult learners.

With collaboration and learning prompts, Wenger's (1998) "design for learning" framework directs and generates social energies when educators and adult learners objectively and systematically construct a time-sensitive closed system of conveyances and convergences. Conveyances are directed exchanges of information, such as the educator's project-based checklist for the dairy farm lesson plan; while, convergences are collaborative activities generating a group's agreement or consensus of an event or situation, such as the two adult learners collaborating on the lesson plan (Sorenson, 2004). In Wenger's (1998) "design for learning" framework, prior learning in explicit and tacit knowledge dimensions is challenged when authentic learning activities are designed.

Again to the dairy farm example, if either adult learner did not consider the trip to the dairy farm as an authentic activity to create the lesson plan, whether supported by collaboration or a project-based checklist, learning did not occur. However, social constructivism influences Wenger's (1998) "design for learning" framework and shows how the framework is negotiated. Authentic activities based in inquiry-based learning provide an opportunity for the adult learners to move through curriculum in a non-linear fashion rather than a sequenced set of tasks (Reeves, Herrington & Oliver, 2002).

Inquiry-based learning follows four basic steps: first, an independent determination of required learning (trigger event), second, resource and learning style identification (exploration), third, self-directed choices of resources and reporting (integration) and finally, adult learners assessing their progress in the learning (resolution) (Driscoll, 2005; Garrison, Anderson & Archer, 2000). Throughout the learning, adult learners are measured by formative, summative, or peer assessment. When the assessments or authentic activities, such as the dairy farm lesson plan, involve critical reflection, the adult learners are again assisted

to learn new knowledge, either explicitly or tacitly. Continuing with the dairy farm, after critical reflection, one adult learner chooses to never return to a dairy farm while the other plans K-12 classroom field trips. Determining which adult learner never returns or plans more trips is purposely omitted from the description of the two adult learners to reinforce the following point. What was learned, or considered actionable knowledge, is rarely predictable. Also absent is the intercultural or intergenerational description of either adult learner. Again, a purposeful omission reminds the reader that without knowing relational interactions and attitudes of these adult learners, the impact of any cultural or intergenerational diversity to social learning energies is unknown.

Educators re-direct social learning energies in a face-to-face on-campus course where consequences are minimized and newly forming professional practices are transforming adult learners to pre-service teachers. Yet, the same cannot be said for in-school practicum experiences where adult learners are sandwiched between two levels of social energies: the level 'above' where sponsor teachers, faculty sponsors, and school experience coordinator guide and govern the adult learners; and the level 'below' where a classroom of K-12 students with individual knowledge and past learning experiences possibly disrupts any preconceived notions of orderly lesson plans and units.

1.2.3. In-school practicum experiences

In-school practicum experiences with these unpredictable levels subjectively, individually, and professionally defined an open system of worldly connectivity and transformations. In this system, classroom management, including experiences in intercultural development and group dynamics, challenged the lessons adult learners construct with educators and peers. Adult learners' praxes measured their successes. Praxis

means using a systematic and sustainable way to critically reflect on past events and then determine an action plan as to how to proceed and transform one's world (Freire, 1986). Adult learners critically reflected on the daily assessments of sponsor teachers and faculty advisors in a K-12 classroom and modified prepared action plans continuously. These action plans are better known as lessons plans and unit plans in ETEP.

Successfully implemented, adult learners' praxes transformed their practicum experiences and ultimately, their worlds. A Brazilian educational theorist and practitioner, Freire, formulated his "pedagogy of the oppressed."¹ Freire (1986) states: "...for apart from inquiry, apart from the praxis, individuals cannot be truly human. Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue..." (p.72). When considered as part of the in-school practicum experiences curriculum, Freire's (1986) definition of praxis supports and respects the underlying tenets of participatory action research: adult learners focus on the results of their direct actions within a K-12 classroom, ask pertinent questions regarding their performance, improve their performance in areas of concern observed by teacher sponsors and faculty advisors, and resolve any conflicts through an active practice of personal and collaborative critical reflections with others in similar situations (Lundeberg, Bergland, Klyczek & Hoffman, 2003).

Participatory action research provides the adult learners a method to develop their praxes that is valued in their profession; however, the actions of adult learners are not practiced in isolation. The conclusion of Freire's (1986) quotation, "in the world, with the world, and with each other" (p. 72), aptly describes the professional world of K-12 teaching:

¹ Freire's work is considered one of the foundations of critical pedagogy (Brookfield, 2005).

in the world of K-12 students and their daily interactions, with the world of sponsor teachers, faculty advisors, parents and other governing bodies and with other adult learners striving to be teaching professionals. Pratt (2002), co-developer with Collins, of the Teaching Perspective Inventory (TPI) determines these worlds create tensions between classroom actions, lesson plan intentions, and adult learners' beliefs about what theories and models complement their personalities.

Pratt's (2002) observations demonstrate an example of espoused theory, where people act in a way that they feel is expected or rewarded in particular situations, cultures, organizations or systems (Argyris & Schon, 1974). During ETEP, this is most evident during in-school practicum experiences. Within this system, adult learners develop their skills and master an unpredictable K-12 classroom while sponsor teachers assess classroom practices and faculty advisors measure professionalism. Sponsor teachers and faculty sponsors govern and guide the adult learner with feedback on how well adult learners effectively and efficiently integrate learning activities, move the students' learning in a time-sensitive fashion to a definable K-12 curricular learning outcome and demonstrate that learning happens through a process of formative and summative assessments.

Therefore, the success in the on-campus courses did not equate to similar success in the in-school practicum experiences and vice-versa. Results were unpredictable: some adult learners felt well-prepared; others, felt ill-equipped. When asked for curricular improvements, many adult learners suggested structural changes such as a different order of courses or more content added to the on-campus courses. Although these scheduling changes to courses were continually integrated within a professionally designated curriculum, similar results were repeated during on-campus courses and in-school practicum experiences.

Therefore, Pinar's (2009) "key curricular question — what knowledge is of most worth?" — will be parked while the second part of his quotation — "it is posed by individuals existing at specific historical moments, in particular places, confronted by, infused with, reality that is ever shifting, in part according to our engagement with it ..." (p. vii) — is used to examine the same teaching-learning environments, on-campus courses and in-school practicum experiences, and describe them as two distinctive parts of a teaching-learning 'world'.

1.2.4. Teaching-learning world

Pinar (2009) states the key curricular question is a worldly question and is posed by "individuals existing at specific historical moments, in particular places, confronted by, infused with, reality that is ever shifting, in part according to our engagement with it..." (p. vii). In this study, adult learners in two cohorts of ETEP were the 'individuals' and answered Pinar's (2009) key curricular question. Although considered a group of adult learners involved in the same ETEP experience, each individual brought personal beliefs, values and experiences while "existing at specific historical moments, in particular places..." The cohort was "confronted by" the transformation from adult learner to teaching professional and "infused with" K-12 curriculum and practices. Finally, they faced a "reality that is ever shifting, in part according to our engagement with it..." This ever-shifting reality began in closed practice, on-campus courses with educators. By learning and collaborating, the cohort engaged and converged with their group studies. Concurrently, one-day school observations were dispersed throughout these courses introducing adult learners to their sponsor teachers, classrooms, and schools where their in-school practicum experiences would take place. A school experience coordinator directed the in-school practicum experiences for ETEP adult learners and liaised with educators, school districts, schools, faculty advisors, and sponsor

teachers. When these two teaching-learning environments combine into one curricular world, complexity theory provides the means to understand these two seemingly opposing phenomena.

A curriculum theorist, Doll (2008), has connected curriculum design and complexity theory. To better understand this connection, a brief historical journey of systems, chaos, and complexity theory follows. A theoretical biologist, Bertalanffy, bridged the natural sciences with social sciences with his *General Systems Theory* and structural descriptions of open and closed systems. Bertalanffy considered that only the open system, with its changing states of equilibrium and disequilibrium, would exist through series of transitions. Doll (2008) joined Bertalanffy's open system and states of 'equilibrium and disequilibrium' with Piaget's learning theory of accommodation, assimilation, and equilibration as described below:

- Accommodation or surface learning: uncritical accumulation of facts and opinions
- Assimilation or deep learning: complex and independent thinking
- Equilibration: distinguishing between personal discrepancies or biases causing disequilibrium and/or equilibrium through the learning experience (Driscoll, 2005)

In the 21st century, Bertalanffy's general systems theory evolved to include chaos and complexity theories. In the natural sciences, chaos and complexity theories were allied.

Chaos theory developed in mathematics as problems became unsolvable within the linear mathematical framework due to ever changing factors entering an event. Complexity theory partnered with chaos theory when natural phenomena were discovered as fractals, or pieces broken away from the original and self-organized into similar patterns of the original. Doll (2008) justified the evolution as the chaotic order and complex nature of societies. Today's curriculum design develops the requirements for chaotic and complex environments. As adult learners are exposed to more complex environments such as teaching-learning environments,

they require new thinking processes. Therefore, from complexity theory in natural sciences came complexity thinking in social sciences.

Complexity thinking offers fluidity of thought when non-linear, fractal phenomenon require a self-organization of thinking. For example, as the ETEP adult learners moved between the open and closed practices in the teaching-learning world, some developed fluidity and flexibility of thought while others experienced cognitive overloads or disorientations (Davis & Phelps, 2005; Davis & Sumara, 2008). The three components of complexity thinking according to Davis and Phelps (2005) – transphenomenality, transdisciplinarity, and interdiscursivity – prepare adult learners to consider multiple phenomena. Transphenomenality facilitates multiple levels of understanding, transdisciplinarity crosses arbitrary borders created in discipline-based courses and interdiscursivity develops an understanding of how discourses, structural domains of specified language use, are connected rather than disconnected. Complexity thinking results in a series of personal and group ‘snapshots’ of teaching-learning artifacts chosen by the adult learner within a ‘photo album’ of collected teaching-learning experiences determined by the curricular design (Tomlinson & McTighe, 2006). Furthering this analogy, critical reflective practices provide the adult learner with an action plan, or the mechanism that gives a consistent narrative to describe the ‘snapshots’. Once the adult learner becomes comfortable with the new actions and the results are consistently successful, the adult learner chooses either to be socially present within the ‘snapshot’ or uses the new thinking to understand the ‘snapshots’ of others’ experiences and becomes seemingly absent from the social learning experience.

For example, transphenomenality offers a multi-level perspective of seemingly different phenomena. Adult learners experience social presence in their on-campus courses while the in-school practicum experiences create individual absence from the social cohesion of the cohort. Separately, these phenomena seem in opposition of social learning theory. Yet, when both teaching-learning environments are blended into one teaching-learning world with collective critical reflection, these human interactions create a cohort representation of Minsky's (1988) society of mind "where the [intellectual] property of individuals is not the property of the whole" (Downes, 2009a).

One example of this society of mind in this teaching-learning world is when adult learners reframe and repurpose their ordinary thinking to metacognition. Ordinary thinking includes personal preference, 'best' guessing, inferring and associating concepts from past experiences, whereas metacognition is 'thinking about thinking'. When one adult learner's metacognition is linked to a trusted community's metacognitions through a reflective practice of a new communal, experiential learning activity, the collaborative process enables the beginnings of a transformation of thought for the community and the individual. For example, an adult learner enters a technology lab with Apple and PC computers. Using ordinary thinking and personal experiences, the adult learner gravitates to a computer platform used most often. Nothing on the computer's desktop has changed since the last visit to the computer lab. The adult learner completes the task without many glitches. On the next visit to the computer lab, the adult learner finds a new interface on a frequently used word processing program. Although the task and timeline are the same as the last visit, the task does not seem to work smoothly and the adult learner leaves the technology lab in frustration. How the adult learner thinks about the last event affects the success next time the adult

learner visits the technology lab. Maybe, the adult learner finds and asks friends already using the new interface in another technology lab what to do. This action would be an example of linking metacognition to a trusted group. The new computer interface has everyone ‘thinking about thinking’ until, with practice, the adult learners use the new interface as quickly as the old one. Now, the new computer interface becomes part of everyone’s ordinary thinking. The process will begin again when another software update is experienced. In the case of adult learners in ETEP, the transformation from ordinary thinking to metacognition back to ordinary thinking takes an adult learner to a pre-service teacher (Nagle, 2009). As thoughts change, an action plan reinforces the new processes. With this reinforcement, the new thinking becomes the adult learner’s ordinary thinking and the adult learner prepares for the next metacognitive opportunity.

The teaching-learning world shifts each adult learner’s thinking from a closed practice to an open practice where social cohesion of the cohort diverges based on the practices of teacher sponsors and faculty advisors. As well, thinking about assessment shifts between these two teaching-learning environments. The on-campus courses were assessed with formative, summative, peer and self assessment. However, the in-school practicum experiences were assessed in two parts. First, the adult learner using praxis assessed the experience and second, sponsor teacher and faculty advisor assessed the experience. The content — K-12 curriculum and its delivery — bound the on-campus courses and in-school practicum experiences creating a teaching-learning ‘world’ for the adult learners. Therefore, the adult learner’s transformative journey ebbed and flowed in a dynamic yin-yang equilibrium between natural dualities within this blended teaching-learning world. The natural dualities were presented in the structural descriptions of open/closed practices,

converging/diverging social cohesion in a cohort, and socially constructed/individually formed assessments. By adding the structural descriptions of the two teaching-learning environments into Pinar's (2009) statement, a description of a chaotic and complex teaching-learning world emerged:

...[adult learners] existing at specific historical moments, in particular places confronted by...on-campus courses converging learning and collaboration in a closed practice with a socially constructed assessment for learning ... infused by...in-school practicum experiences diverging social cohesion in an open practice with an individually formed assessment as learning involving sponsor teachers, faculty teachers and K-12 students creating a...reality that is ever shifting, in part according to our engagement with [the teaching-learning world]... (p. vii, added italics to combine Pinar's (2009) quotation with the example)

Another concept presented in this structural description is closed and open teaching-learning environments within a teaching-learning world. This concept of open and closed systems, environments or practices is important for the next section which discusses technology-based activities of adult learners. To this point, all of the examples described face-to-face activities with educators, sponsor teachers, faculty advisors and adult learners. By adding the second component of blended learning, technology-based activities and global interconnectivity, another level of social energies is added to this teaching-learning world.

1.3. Technology-based activities and global interconnectivity

Blended learning creates a teaching-learning environment where learning outcomes, regardless of the activity, occur outside the control of a traditional on-campus course or in-

school practicum experience (Moore & Kearsley, 2005). In the late 20th century, the challenges of creating online learning activities tended to keep face-to-face communications in the foreground and members confined to a closed C/LMS, such as Moodle or Blackboard, supported by Web 1.0 technologies (Garrison & Anderson, 2003). For example, intercultural and intergenerational diversity requires sound didactic and dialogic practices. However, communications through technology do not provide similar social cues as face-to-face interaction (Rumble, 2001). With Web 1.0 technologies, the adult learners' technology-based activities were defined and distributed by the educator or depended on top-down developers and experts in the field of technology. Therefore, these technology-based activities were conveyed by the educator using a practice of collection for knowledge distribution and assessment. Adult learners collected prescribed materials; educators collected prescribed assignments. Well-defined roles existed between the owner of the materials (the educator) and the owner of the prescribed learning (the adult learner). These roles changed with the introduction of Web 2.0 technologies.

1.3.1. Web 2.0 technologies

In the 21st century, Web 2.0 introduced a system without an owner; rather, it is tied by a set of protocols, open standards, and collaborative agreements (Addison, 2006). Credited with coining the term 'Web 2.0', O'Reilly (2004), founder of O'Reilly Media and a supporter of the developers' open source and end users' free software movements, describes the phenomenon as the "open source paradigm shift ...to the three Cs: commoditization of software, customizable systems, and network enabled collaboration." The shift to open source and its 3Cs provides developers a collaborative grassroots web community of shared browser applications, resources, and skills to build and design their DIY (Do IT Yourself)

software solutions (Addison, 2006). With the same opportunities as the developers and global interconnectivity becoming near ubiquitous, adult learners enrol in a comparatively closed blended learning system, like ETEP, and virtually enhance their learning with OERs, PLEs, and PLNs (Siemens & Tittenberger, 2009).

1.3.2. 21st Century curriculum design

From a curriculum design view, the teaching-learning world now includes two levels of social learning energies, one in the institution and the other in the virtual world. The two levels are similar to the levels of social learning energies described in the in-school practicum experiences with one level 'below' involving K-12 students and one level 'above' involving sponsor teachers, faculty advisors and school experience coordinator. The two levels in the in-school practicum experiences disrupt the flow of adult learners' preconceived ideas of how lesson plans and units develop. Similarly, adding another level to curriculum design with technology-based activities and global interconnectivity has increased the chaos and complexity within the teaching-learning world.

Learning outcomes of adult learners have become unpredictable. The cohort has diversified as adult learners personally brand their learning with PLEs and develop a multitude of flatly distributed global PLNs with "ever-widening, never-ascending circles" (Gandhi, 1946). New learning opportunities with OERs are available within "six pixels of separation" (Joel, 2009). Thus, as today's Web 2.0 evolves with opportunities of cloud computing and cloud intelligence, adult learners and members of their teaching-learning world search for what NASA (2003) describes as a Goldilocks Zone. For NASA (2003), the Goldilocks Zone is where microbes end up in just the right place with just the right ingredients where life can flourish. For adult learners, the Goldilocks Zone is where

individuals or groups of adult learners end up in just the right place with just the right core concepts, or threshold concepts, where learning can flourish. However, with global interconnectivity, as one adult learner reaches a Goldilocks Zone within a cohort, another adult learner negotiates or navigates to a different Goldilocks Zone with OERs, PLNs, and PLEs. This ebb and flow from cohort to global interconnectivity creates tensions between institutional curricular designs, disciplined educators' collective purpose for teaching or researching, and adult learners.

In the ETEP curriculum design, the question of who leads and fosters community relations becomes increasingly important as these ebbs, flows and tensions occur. Independent and self-directed adult learners move in heterogeneous cohorts of intercultural and intergenerational diversity through their term from one teaching-learning environment to the next. They connect with one of two bounded cohorts, or sections, in a large research institution. Each teaching-learning environment introduces a new educator or sponsor teacher, course content, and learning outcomes. Learning outcomes are differentiated by the transformative state of each adult learner in the teaching-learning cohort. With less face-to-face time and more virtual space, adult learners, educators and sponsor teachers become physically separated with numerous other high-priority tasks and outside obligations.

The challenges to curricular design strategies in becoming an online community include empowering individuals within a common purpose, providing a voice and identity to varying roles and membership in the community, determining a 'flow' pattern rather than 'fight or flight' in stress-induced situations, and connecting individuals to required support systems (internally or externally). To assist the community formation, an integrated approach

mixes appropriate learner's goals, educator's objectives, institution's academic strategic plans and societal regulations (Anderson, 2003).

For the last decade, the Community of Inquiry theoretical model has developed an educational experience where "...computer conferencing appears to have considerable potential for creating an educational community of inquiry and mediating critical reflection and discourse (i.e., critical inquiry)..." (Garrison et al., 2000, p. 103). The three components of the model are social presence, teaching presence and cognitive presence. As each component interacts with the others, they address the challenges to curriculum strategies and transform educators and adult learners into cohesive Online Learning Communities (OLCs). However, when continuously under-deadline educators and over-obligated adult learners encounter unfamiliar technology while meeting their non-technical obligations, the community members become distracted from their educational experience of computer-mediated communications that fuels the community of inquiry. Thus, a safety net of sound troubleshooting procedures, multiple technology processes and alternative activities is required. Such curriculum design requires diverse teaching-learning components with multiple media and community building elements to foster collaboration.

Another viable model to address the challenges of curriculum design strategies and the building of learning communities is the community of practice. Three facets of this model lessen the transformative differentials as a group becomes a community: a community fostering social presence/co-presence, a knowledge domain inspiring democratic discussion and a reflective practice focusing the character of communication (Wenger et al., 2009). The research involving communities of practice is investigated further in the literature review in the next chapter.

1.4. Need and limitation for such research

Canadian educational trends of blended or hybridized courses meet the academic challenges of changes in adult learner demographics by introducing online learning strategies to reduce the financial constraints imposed by funding sources and favourably impact the comparison of academic strategies in a global marketplace (Hargreaves & Goodson, 2006; Pence, 2007; Shale, 2002). Concurrently, institutions develop academic strategies to address their employees' needs, meet their fiscal responsibilities and satisfy their clientele (Russell, Bebell, O'Dwyer & O'Connor, 2003). Yet, as Garrison et al. (2000) reveal with their Community of Inquiry model, a simple transfer from paper to technology or vice-versa is not sufficient to address the social, cultural and generational concerns of a cohort of adult learners through multiple modes. Bonk, Kim and Zeng (2006) predicted an increase of blended learning in higher education and the workplace requiring changes to course designations and the emergence of blended learning specialists. They have forecasted the following trends:

- content creation and distribution with mobile and handheld devices;
- communication and interaction with greater individualization, visualization and hands on learning;
- self-determined learning needs and styles made by learners;
- lifestyle constraints and opportunities increasing connectivity, community and collaboration;
- social aggregation and human variety including community and collaboration;
- perceptions, definitions, negotiations and creation of knowledge with increased authenticity and on-demand learning changing educators' roles;
- intergenerational and intercultural diversity linking work and higher education learning;
- and technology availability changing calendaring (pp. 560 – 564).

Educators and institutions have relied on models and theories to address these trends; yet, few have agreed on the depth or breadth of any research design (Cohen & Nachmias, 2007; Ohran, 2008; Orstein, 2003; Ruth, Sammons & Poulin, 2007). Educators within the teaching-learning environment require immediate, small-scale models suited to their discipline and personal teaching-learning philosophies while the institutional communities garner long-term, large-scale theories (Kanuka & Anderson, 1998; Neuman, 2006).

The missing voices in these discussions are a diverse cohort of adult learners. On a macro-level, as global connectivity and ubiquity converged, adult learners with cosmopolitan viewpoints and internal loci of focus diverge from the cohort. These actions have developed an ecologically dynamic, usually chaotic, distributed network structure. On a micro-level, every adult learner has a well-developed self-concept of what constitutes ‘teaching-learning’ success and situated learning amongst a myriad of outside obligations. These factors distress and divert the flow of socially constructed learning. This flow in turn diminishes the predictability of educational initiatives in institutional collectives (Couldy, 2005; Pinar, 2009). Therefore, few teaching-learning phenomena repeat within exactly the same circumstances (Anderson T, 2008; Andrade et al., 2008; Siemens, 2006).

In order to hear the missing voices of the adult learners, I have chosen a phenomenological research design that develops structural and textural descriptions of two groups of active collaborators, adult learner volunteers, as they move through a similar phenomenon, an ETEP curricular design. The structural description provides an overview of ETEP curricular design and its components. The aims of the textural description are two-fold. First, the textural description provides an understanding of the groups’ diversity with descriptive statistics, demographics, personal backgrounds and group experiences defining

their world. Second, an overview of responses in semi-structured interviews answers Pinar's (2009) "key curricular question – what knowledge is of most worth?" With these targets met, the reader has another representation of this teaching-learning world. The opportunity provides a critical reflection of whether the implications and conclusions of this study were pertinent to the reader's world. Therefore, this study's story provides the structural and textural descriptions that create a phenomenological research design (Cresswell, 2007). Then the reader "... [does] with it what you wish... Once told, it is loose in the world... So you have to be careful with the stories you tell. And you have to watch out for the stories that you are told... But don't say in years to come that you would have lived your life differently if only you had heard this story..." (King, 2003, p. 29). The intent of telling such a story is to determine the viability of a larger scale research project that incorporates the findings herein and that broadens the scope of participants. Only then could generalizations be developed to the benefit of future adult learners and educators.

1.5. Summary

The first part of Pinar's (2009) quotation, "[t]he key curricular question — what knowledge is of most worth? — is a worldly question", creates the background for this study. When entering a post-secondary institution, adult learners anticipate their past knowledge and experiences will be respected. As they consider new knowledge relevant to their prior knowledge or practices, they readily take responsibility for their learning by displaying independence and using self-directedness (Knowles, 1980). When entering a professionally designated discipline such as ETEP, the adult learners expect respect that amplifies by two factors. First, every adult learner has successfully completed at least ninety credits of undergraduate course work and many have completed an undergraduate degree. Second,

usually a greater number of well-qualified adult learners will have applied than the ETEP has spaces available, resulting in final selections being based on grade point averages. Therefore, based on previous educational successes, the adult learners enter ETEP with well-formed self-concepts of their post-secondary teaching-learning environments. Before experiencing ETEP, their initial answer to Pinar's (2009)" key curricular question — what knowledge is of most worth" includes relevant newly constructed knowledge realized through independent, self-directed, authentic activities designed with socially constructed scaffolding of adult learners' past learning experiences and online practices (Herrington, Oliver & Reeves, 2002).

As described in this chapter, this expected teaching-learning environment by new ETEP adult learners is best represented by the in-school practicum experiences; however, the second teaching-learning environment, on-campus courses, is fraught with group projects within a blended teaching-learning world where the adult learners' experiences and knowledge may be continually challenged thereby creating resistance (Atherton, 2009). Further, adult learners transform into pre-service teachers by blending global connectivity, cloud intelligence and extending threshold concepts with OERs, PLEs and PLNs.

The chaos and complexity follows an integrated infrastructure with two teaching-learning environments blended into one teaching-learning world. Within this integration is the main objective of how to assist adult learners as they become teaching professionals. Much like caterpillars, used to a limited terrain, then are cocooned and transformed into butterflies living anywhere their wings will take them; successful adult learners' transformations offer many new opportunities, at home and abroad. However, the new skill sets require complexity thinking. One example of complexity thinking is transphenomenality as adult learners maintain learning and collaboration with collective presence and individual

absence to develop their cosmopolitan viewpoints. Hence, just as my skill sets developed as my roles morphed — storyteller, reporter, facilitator, learner, researcher — transforming me from curious lab coordinator to researcher, the curriculum shapes the teaching-learning world of ETEP adult learners as they become professional K-6 teachers. The transformations require authentic activities to develop new knowledge and skills sets infused with learning, collaboration, and praxes.

2. Chapter Two: Literature review

What is curriculum theory? ... the interdisciplinary study of educational experience ... a distinctive field, with a unique history, a complex present, and uncertain future... [and] has its origin in and owes its loyalty to the discipline and experience of education ... ~ Pinar, 2004, p. 2.

For a teacher researcher, an insistent question is, “Where is living pedagogy located?” ~ Ted Aoki, 2003, p. 425.

...[l]earning a practice is learning how to be a certain kind of person with all the experiential complexity this implies: how to “live” knowledge, not just to acquire it in the abstract. ~ Etienne Wenger, Nancy White and John D. Smith, 2009, p. 7.

2.1. Introduction

Sandwiched between Pinar’s (2004) curricular theory and Wenger et al.’s (2009) learning a practice, Aoki’s (2000) living pedagogy provides adult learners the teaching-learning world to learn and collaborate at their “conjunctive space”, the point where curriculum-as-plan and curriculum-as-live(d) transforms the adult learner into a teaching professional (Aoki, 2000). A prominent curriculum scholar, Aoki’s work spans his 30-year career from a secondary social studies teacher to a professor of curriculum studies at the University of Alberta and then the University of British Columbia. His living pedagogy prepares the adult learners to learn and evaluate curriculum with others. This preparation gives adult learners a transnational approach to their education and professional practice by identifying their internal loci of focus (personal goals, beliefs, and practices) and critically approaching the hybridity of cultural and generational triggers while collaborating with others. Within these collaborative groups, adult learners resist external loci of focus, or the educator’s marking scheme, when choosing assignments. Therefore, Aoki’s pedagogy not only provides personal reflective practices for adult learners, but also offers inspiration and a wealth of guiding questions that awaits collaborative reflective practices. Individual and

collaborative reflections require the adult learners to develop their complexity thinking skills of transphenomenality, transdisciplinarity and interdiscursivity (Davis & Phelps, 2005). For example, according to the data collected in this study, the adult learners discussed many different courses and disciplines of interest. Each course has specialized terminology attached to that discipline. Therefore, when a cohort collectively reflects on a presentation from one group of adult learners, the cohort needs to be aware of any specialized terminology before comparing or contrasting the knowledge presented to their own definitions. This example describes transdisciplinarity or being able to ‘switch’ thinking across constructed disciplinary boundaries.

Conversely, as adult learners face rising tuition costs, debts, outside obligations and learning distractions, their external loci of focus cause them to seek concrete answers rather than abstract questions. Without a directive approach for learning and collaborating, Aoki’s work tends to initially undermine their main objective for entering ETEP —developing practical skills to become employable in the K-12 education system (Brydon, 2004). The bridge between these two extremes is inquiry-based learning activities where self-directed learning has the adult learners following these four basics:

- an independent determination of required learning (trigger event),
- resource and learning style identification (exploration),
- self-directed choices of resources and reporting (integration),
- and finally, self-assessing their progress in the learning (resolution). (Garrison et al., 2000, p. 6).

For example, within an inquiry-based learning curriculum, Aoki’s living pedagogy becomes a bridge between the theoretical constructs and the practical learning. When the pedagogy is used as a catalyst, adult learners compare their experiences in a teaching-learning world

through collaborative reflective practices. By comparing lesson plans or group projects, the adult learners develop a specialized information set, or knowledge domain, providing “an identity for the community — a set of issues, challenges and passions through which members recognize each other as learning partners” (Wenger et al., 2009). These opportunities provide assessment as learning where the adult learners determine their progress through the curriculum individually, and then collectively, as they “learn a practice” (Wenger, 2009).

With learning central to human identity, adult learners are synergized with “actionable knowledge” (Siemens, 2006) that connects their previous knowledge and experiences to their new teaching-learning world and global interconnectivity (Siemens, 2006). Pinar (2009) states a cosmopolitan education is one that understands how the teaching-learning world has changed the adult learner’s subjectivity of the world as a whole and requires an “ongoing self-reflection associated with solitude while engaged with others in the world” (p. ix). Finding actionable knowledge and cosmopolitan education requires an investment of time that must be understood and accepted by adult learners. The most important inquiry-based learning and time investment for adult learners becomes gathering necessary skills to “learn a practice” (Wenger, 1998), collecting suitable resources to support their inquiry, and determining their choice of reporting to others while receiving feedback. During this inquiry-based learning, adult learners develop their praxes, critical reflection and action plans that transform their worlds (Freire, 1986).

Although already self-directed and independent as adult learners, a traditional learning environment provides resources and assessment tools to complete a body of learning in a timely manner. However, adult learners may encounter future obstacles when learning a

practice without collaborative feedback opportunities and cosmopolitan viewpoints. For example, in post-secondary institutions, ‘timely’ usually means a term or at most two terms to complete a body of learning. Such timelines become arbitrary when completing inquiry-based learning. However, successes in past school experiences ingrain the post-secondary constructs of timelines that include a defined collection of learning materials and prescribed assessments. To counteract the adult learners’ self-concept of these successful teaching-learning environments, it is necessary for the ETEP curricular design to provide adequate mentorship or stewardship and feedback for these adult learners progressing through their inquiry-based learning. Examples may include alumni mentorship and stewardship through their biographies or a program with small groups of first-year ETEP adult learners meeting with small groups of second-year ETEP adult learners (Wenger et al., 2009).

2.2. Transformative learning and collaborative communities

For some adult learners in professionally designated curriculum, the transformation from adult learner to professional is intuitive, much like a butterfly that flies rather than crawls like a caterpillar when leaving a cocoon. However, for other adult learners, the “butterfly effect”, a metaphor used to encapsulate the sensitivity of an initial condition in chaos theory, aptly explains their departure from the professionally designated teaching-learning world. Doll (2008) describes this sensitivity to an initial condition where “...the butterfly’s wing fluttering in one part of the world causes a typhoon in another part...” (p. 194). In other words, what should be familiar initial situations are not recognized by the adult learner in newly formed professional contexts. Then, some adult learners’ reflexive actions impede their professional transformation or worse still, their professional career. While neither form of impedance is desirable, the probability of a diverse group of adult learners

experiencing every conceivable scenario necessary to ensure smooth transformations is minuscule. Conversely, adult learners who are within a digital habitat to “learn a practice” (Wenger, 1998) rely on digital stewards and mentors (independent from and complementary to their teaching-learning world) to support their endeavours.

To demonstrate this threshold concept, a constrained example of a teaching-learning activity describes the importance of learning and collaboration. The example begins with an adult learner ‘googling’ a new definition for class. Meanwhile, behind the Google browser, Google’s servers locate, then produce an estimated one petabyte of data every 72 minutes from all over the world (Anderson C, 2008). Such a ‘Google’ search leads the adult learner to at least one of three subsequent actions: a sequencing of refined searches with additional keywords, a series of attempts deemed ‘futile’ by the adult learner, or an afternoon following links that may or may not fit the adult learners’ reasons to start in the first place. Therefore, adult learners understand the Google system’s routine; yet, they do not realize how their actions affect their subsequent searches or impact other adult learners when trying to produce inquiry-based learning or “actionable knowledge” (Siemens, 2006). The following sections discuss learning and collaboration, define a knowledge domain and explain how adult learners participate in a knowledge domain’s creation.

2.2.1. Learning and collaboration

Learning requires some form of feedback. To demonstrate, four different learning theories describe what happens to adult learners and the results of their Google search. Behaviourists, such as Robert Gagne, consider a stimulus-response achieves learning with the adult learner passively responding to the external stimulus of Google’s results. Cognitive learning theorists, like Jerome Bruner, think of the learner as an information processor with

their actions a consequence of rational thinking. Constructivists, including Jean Piaget later in his career, describe the learner as an information constructor creating their own subjective representations of objective realities. Humanists, such as Malcolm Knowles, feel the adult learners fulfill their potential to self-actualize later in some cooperative, supportive environment (Driscoll, 2005). Each learning paradigm leads to a varied description of ‘how’ the learning happened; however, without some form of feedback, there is still uncertainty about ‘what’ the adult learner has learned. This example parallels the earlier example of the adult learners at the dairy farm determining the actionable knowledge or specialized information set. Without collaboration, there is much speculation and little certainty. The National Research Council Canada (2010) studied learning and collaboration in practice. They concluded: “... learning and collaboration are two facets of the same activity where individuals and organizations acquire, share, and apply knowledge: knowledge cannot be acquired without it having been shared; and it cannot be shared without it having been acquired. Each is necessary to support the other.”

In traditional courses, the educator provides what adult learners consider the most important collaborative feedback, the marking of assignments. In the case of inquiry-based learning to “learn a practice” (Wenger, 1998), the educator chooses one of three possible forms of collaborative feedback: addressing every adult learner separately, developing specialized collaborative feedback through grouping, or centralizing differentiated collaborative feedback and distributing to all adult learners. The first two forms of feedback present two ends of a continuum. Addressing every adult learner separately requires a level of professional development, dedication, and experience that is worthy of pursuit; however, maintenance is difficult without the educator being overwhelmed with such a vast array of

adult learners. Developing groups of specialized collaborative feedback may result in segregating some adult learners or developing social stratification of small groups. Centralizing differentiated collaborative feedback and distributing it to all adult learners provides an open system that respects each adult learner's diversity and exercises the synergistic opportunities of blended learning to support all learning. However, such a collaborative feedback design requires diverse teaching-learning components, expertise with multimedia, and elements to channel adult learners towards standardized collaborative achievements.

Although differentiated and distributive collaborative feedback is an effective and sustainable practice in other teaching-learning environments, such as listing standards of a professional organization, the results in an inquiry-based learning to “learn a practice” (Wenger et al., 2009) are similar to Web 1.0 technologies with top-down collaborative feedback conveyed from educator to adult learners. For example, consider the single Google search of the adult learner looking up a definition for class that was introduced earlier in this section. For an educator to maintain a database of possible permutations and responses requires the concentrated efforts of Google's network servers. Collaborative feedback when adult learners are involved in inquiry-based learning to “learn a practice” (Wenger et al., 2009) requires the re-introduction of the philosophy of Web 2.0 and O'Reilly's (2004) 3Cs of commoditization, customizable and collaboration. For example, adult learners are subjectively transformed from learners to teaching professionals by changing a product (adult learner) into a commodity (teaching professional). The example is analogous to commoditization. However, during this transformation, adult learners expect their teaching-learning world to be customizable and collaborative. Therefore, an inquiry-based method to

learn a practice within the ETEP teaching-learning world requires a collaborative feedback structure without an owner, respects the adult learners' creative individuality, and harnesses the adult learner's OERs, PLEs and PLNs with the social energies of other adult learners and the educator. Wenger, White and Smith (2009) describe such a structure as a digital habitat where feedback to learn a practice comes from multiple collaborative sources, including digital mentorship and stewardship.

2.3. Wenger's design for learning practice

Wenger (1998) included his "design for learning" within the digital habitat by harnessing the social energies of learning and collaborative activities. In blended teaching-learning worlds with global interconnectivity, an indefinably greater open system of global interconnectivity seems impractical to a teaching-learning environment; however, within a digital habitat, OERs, PLEs and PLNs are shared and evaluated through collaborative practices. The digital habitat supports the natural dualities, discussed earlier, within the blended teaching-learning world. The natural dualities previously presented in the structural descriptions were open/closed practices, converging/diverging social cohesion in a cohort, and socially constructed/individually formed assessments. The digital habitat's structure also includes open and closed places or spaces where adult learners can choose to visit or not. With cosmopolitan education, there are times when adult learners want to share with their teaching-learning world and other times when they choose individual reflection or working with a small group. These open and closed places provide convergent opportunities for social cohesion with a larger population and then diverge to smaller places. For example, adult learners can move from a public sphere including an entire cohort to a triad of adult learner, sponsor teacher and faculty advisor.

By introducing digital mentorship and stewardship, Prensky's (2001) definitions of digital immigrant and digital native are removed from the discussion. These terms refer to the generational difference between those raised without, digital immigrants, and raised with, digital natives, today's technological advancements. Prensky (2001) and Wenger et al. (2009) agree the educational landscape, whether K-12 classrooms or professional development, is changing. All learners are motivated differently and the traditional educational systems are not equipped to handle the changes and differences. Wenger et al. (2009) believe digital habitats are community efforts; therefore, everyone's strengths and weaknesses are respected, relevant and each member is responsible for learning. For members considering themselves as digital immigrants to the digital habitat, stewards and mentors are available to respectively introduce the digital habitat's practices and direct adult learners to resources that will meet their needs.

Community is one important component to the digital habitat; however, as a community of practice, there are two other components: a practice and knowledge domain. Wenger (1998) considers a practice as the added value that brings the membership back to the digital habitat, including the definable identity of the digital habitat. In this example, the adult learners engage in an inquiry-based learning activity to "learn a practice" (Wenger et al., 2009) of becoming a teaching professional. With two of Wenger's (1998) components described, the third, creation of a knowledge domain, is discussed next.

2.3.1. Knowledge domain development

Within the educators' challenge of facilitating meaningful learning for their adult learners comes the collective opportunity of educators and adult learners to demonstrate learning, define collaboration and contextualize what this learning and collaboration looks

like. This challenge for the educators and opportunity for the community develops a knowledge domain, or a definable identity of shared interest including practice and terminology (Wenger, 1998). The knowledge domain develops within the two knowledge dimensions (explicit and tacit) and the adult learners' 3-Rs (respect, relevance and responsibility). The knowledge domain is developed by a learning community of adult learners and educators. However, this knowledge domain requires additional learning and collaboration when an adult learner is guided by a sponsor teacher and faculty advisor. Some actionable knowledge may be deemed more relevant during in-school practicum experiences compared to on-campus courses or completely contradictory (Siemens, 2006; Wenger, 1998). Once again, adult learners require complexity thinking skills, such as interdiscursivity, that develop an understanding of how discourses, or structural knowledge domains such as on-campus courses and in-school practicum experiences, connect language usage.

2.4. Living pedagogy within a community of practice

Living pedagogy includes a collaboration wherever the location of learning. This pedagogy adapts to any teaching-learning environment requiring the additional support and skills of a subject specialist. The collective identifies members within the teaching-learning world as mentors or stewards. Concurrently, new members without any teaching-learning perspective are identified and invited as subject specialists. For example, an adult learner connects with other adult learners through OERs, PLEs and PLNs. However, these communities offer a high level of interaction and degree of flexibility requiring “a framework, but it depend[s] on this framework being negotiable in practice” (Wenger, 1998, p. 235). Without this framework, the cohort expects the educator to interact with each adult

learner in a slightly different way to ease learning barriers in a similar fashion to traditional face-to-face teaching-learning environments.

Aoki (2000) describes this system of ebb, flow, and tensions as a living pedagogy where “two understandings of curriculum [reside]: curriculum-as-plan and curriculum-as-live(d).” By reframing and repurposing the snapshot-photo album analogy of Tomlinson and McTighe (2006), the living pedagogy exists between a single ‘snapshot’ of a cohort and the digital ‘photo album’ of many communities of learners. In this example, Smith and Ragan’s (2005) practices of the 20th century curriculum design develops a single ‘snapshot’ of a cohort of adult learners within a predetermined institutional time frame and predefined needs assessment to answer the ‘why, how and what’ of learning in teaching-learning environments. Concurrently, Siemens’ (2006) practices of the 21st century online activity connects a digital ‘photo album’ of communities of learners, practices, PLEs, and PLNs within indeterminable time frames and formal/informal teaching-learning collaborative experiences lived by adult learners. Combined with near ubiquitous global interconnectivity, a blended teaching-learning world becomes a living pedagogy developing tensions amongst members of the teaching-learning world. Four factors influence this dual understanding of curriculum within a teaching-learning world: cloud intelligence in cloud computing, social cohesion in cohort construction, adult learners’ resistance to new learning activities, knowledge transfers between educator and adult learners.

2.4.1. Cloud intelligence in cloud computing

Cloud computing increases technological capacity or adds new processes without additional infrastructure, licensing new software, or copious training. Cloud intelligence is an approach to globalization where the complex connectivity of cloud computing gives new and

distinctive knowledge that is fluid, flexible and reshapes power paradigms. Other approaches to globalization include the dialectic of global/local interactions and inflections or a structuralist approach where global capitalism and digital technology are considered a new form of colonization (Apple, Kenway & Singh, 2005). Downes (2009a), co-developer of connectivism with Siemens, an educational futurist and currently senior researcher for the National Research Council of Canada, explains at an international conference how his vision of cloud computing and intelligence supports online collaboration and sustains an adult learner's reflective practice and individual identity:

...this system [cloud computing and cloud intelligence] works through individuals communicating through their own experiences and knowledge base with the expectation of an emergent artifact that celebrates their diversity and forms a new semantic condition. So, my words are a word of such an artifact that goes beyond the meaning of such an artifact... (*The cloud and collaboration* [video file])

Downes (2009b) does not consider global interconnectivity as a global/local dialectic or new socialism, sometimes called "digital socialism", where social media, like Flickr and Wikipedia, are the precursor to a cultural movement (Kelly, 2009). Rather, Downes' interpretation is one where individual identity is preserved in this system of global interconnectivity through collective reflective practice.

This concept is important to this study because it reinforces the foundational need of complexity theory and its components of complexity thinking in a professionally designated curriculum: transphenomenality, transdisciplinarity and interdiscursivity. These components give cohort members new ways to learn and collaborate within their individual Goldilocks

Zones. The result is a new knowledge artifact as described in Downes' (2009a) quotation above that moves the cohort to a society of mind where adult learners can express their learning through OERs, PLNs, and PLEs and develop a collaborative body of knowledge within their cohort. For example, a group of adult learners collaborate on a class presentation. The medium to present knowledge is chosen once criteria are agreed upon by the group. One choice may be a multimedia presentation using interviews to start the audience thinking; another choice develops a handout of case studies using past experiences to start the audience discussion. Both the multimedia and the handout represent an artifact of the group's knowledge domain. Combined, the artifacts enhance the presentation; yet, every adult learner in the audience chooses the 'take away' message from the group's presentation and artifacts. Some see their learning in the multimedia, others read a word with a new definition that clarifies a concept and still others hear new "actionable knowledge" (Siemens, 2006) in the discussion. This example supports Downes' (2009a) explanation of a society of mind where individuals retain their identities by choosing relevant pieces of a knowledge artifact while a larger societal experience of knowledge sharing is created through discussion.

2.4.2. Social cohesion in cohort construction

One concern in the example above formulates when this group of adult learners decides to exclusively work together throughout the semester. This decision may be made due to time commitments or physical locations. The group may become a fractal, or piece of the cohort (whole phenomenon) that self-organizes to look similar to the whole (Doll, 2008). Conversely, without collaborative activities and reflections involving the entire cohort, the group of adult learners may begin their own society of mind that becomes unique to, and possibly very different from, the cohort. These fractals versus unique groups confound the

20th century ideal of a cohort conforming to a single definition of social cohesion in the teaching-learning environment.

Twentieth-century curricular design was developed to distribute knowledge. Within a staid societal and economic system, curriculum was based on an ‘industrial strength’ narrative defining the workplace (Doll, 2008). Cohorts moved through an assembly line of bounded curriculum with uniform and regulated learned outcomes. Concurrently, this one-flow hierarchical model’s external loci of focus, mass media, supported the classroom structure and knowledge sharing while returning to that single reason to learn that was transforming adult learners into successful homogeneous units. Standardizing the 3 R’s — Reading, wRiting and aRithmetic — provided the adult learners the means to successfully navigate their ‘one-flow’ teaching-learning environment. Twentieth-century professionally designated education utilized a construct of classrooms and cohorts to address a single society’s norms and to ensure social cohesion of adult learners transformed to pre-service teachers through licensing by governing bodies. This immersive process created a linear communication from educators’ lectures to adult learners’ writing implements bounded in a ‘bricks and mortar’ space. Orchestrated by educators, these hierarchical interactions paced a prescribed knowledge distribution and defined adult learners’ outcomes (Katz, 2008).

In the 21st century thus far, Web 2.0 applications and technology have increased the capacity to create/produce digital identities and discuss thoughts/ideas with a global community. Downes (2009b) predicts this global construct creates OERs and PLEs where adult learners fluidly connect, rather than collect or construct. With such fluidity, the adult learner should flow through virtual teaching-learning worlds with three states of learning that include working independently, short-term groupings and longer-term communities of

practice (Siemens, 2006; Wenger et al., 2009). This pursuit of life-long learning depends on personal self-study agendas and sustained praxes. To navigate such complexity, life-long learners will negotiate their Goldilocks Zones while cooperating and interconnecting their OERs, PLEs and PLNs with others. Within this curricular design, all individuals, indeterminate of their role, require a learning philosophy of ‘just in time’ learning, unlearning, and relearning within two knowledge dimensions: explicit and tacit (Toffler & Toffler, 2006). With such complex results, its membership may experience cognitive overload, disorientation, or distraction from social creation and knowledge attainment leading to resistance and isolation (Atherton, 2009; Siemens, 2006). When these experiences continue, performance decreases, resistance increases and the possibility of one dropping out (either physically or spiritually). It is detrimental to the individuals and the potential growth of fostering a community (Barefoot, 2004; Leu & Zawilinski, 2007; Siemens, 2006).

2.4.3. Adult learners’ resistance to new learning activities

Now, adult learners enter a teaching-learning environment expecting a new definition to the standardized 3-Rs: respect for their past knowledge, relevance of new knowledge to their previous situations and responsibility for their PLEs (Clawson, 2006). If another member of the cohort, regardless of role, implies that what the adult learner has been doing and believing is incorrect, the initial inclination of the adult learner is to reject or resist the messenger and carry on as before (Atherton, 2009). In some cases, these actions become covert by sabotaging other members in the cohort and causing a member or group of members to dropout. Dropping out can take the form of either leaving the program entirely or choosing to not engage with specific members in the cohort (Barefoot, 2004).

Usually, learner resistance implies one of three factors: lack of motivation, lack of ability, or poor teaching. Atherton (2009) posits adult learners form resistances when faced with new learning techniques or knowledge paradigms which challenge their distinctive human identities shaped by past experiences, character and values. As adult learners have developed a proven self-concept of teaching-learning success in the past, one other factor exists: the 'cost of learning'. 'Cost' implies the loss perceived by the competent and experienced adults in 'changing their ways'. Throughout this discussion of professionally designated curriculum, numerous examples have shown the possibility of adult learners' past knowledge and experiences clashing with either the curricular design or members' beliefs and values throughout the program. Another possibility of miscommunications, or clashes, between educators and adult learners is knowledge transfers.

2.4.4. Knowledge transfers between educator and adult learners

Between the educator and the adult learners, the learning materials are conveyed with an exchange of knowledge, or require some convergence, agreement or consensus of educator and adult learners. For example, in a specific discipline, terminology or jargon is conveyed; however, in an interdisciplinary or multidisciplinary course, terminology or jargon is converged. Traditional teaching-learning environments present standardized learning materials to the adult learners from the educator rather than the creation of a personalized, collective knowledge domain. Standardized learning materials mean the majority of adult learners' inquiries are easily responded to by the educator as the materials are familiar. When creating knowledge domains, each adult learner arrives with unique materials and questions that require an educator to research and assess any response.

Given the top-down approach where the educator is seen as having the only answer, this expectation increase educators' workloads substantially. With limited time and other institutional commitments, this increased workload invites impersonal and more standardized responses to adult learners' inquiries. Concurrently, some adult learners do not find social presence and co-presence within an online environment. They experience loss of personal identity. To compensate for these feelings, these adult learners begin to personally connect with the educator and expect immediate reciprocity. Emails, phone calls, and personal meetings once again increase educators' workloads and may perpetuate additional standardization by the educator. Therefore, a framework of cooperation, collaboration and communal learning introduces and supports this blended learning structure and inquiry-based learning. Such a framework transports educators and adult learners from the outer fringes of excessive workloads and loss of personal identity to the centre of the community where learning and collaboration happens. One component of the framework requiring negotiation is the knowledge distribution practices, including conveyances and convergences.

Conveyances are simple exchanges of information, such as articles, readings, course outlines and timelines, while convergences are collaborative activities bringing the group to an agreement about or consensus on an event or situation. These knowledge distribution practices need to be explicitly understood by the educator and adult learners.

Three common practices are used to distribute and contain actionable knowledge: collection, construction, and connection. Collection is the most common in traditional blended classrooms with educators conveying the required knowledge through lecture or posting an article which is collected by the adult learners. The learning outcome is met when adult learners return the collected knowledge in a suitable assessment container. This practice

was described in the first chapter as the 20th century traditional classroom. Construction is practiced when project-based learning is used. One example to facilitate such learning is through an online community of inquiry model developed by Garrison et al. (2000) that supplements face-to-face activities. Many of the barriers, including teaching, social and cognitive presences within the online community of inquiry, are alleviated. Further the online community supports the face-to-face component by providing time, space and connection to critically reflect and discuss democratically. Within a face-to-face classroom, there is little time available for these tasks to be authentic as many members are engaged in other activities such as presentations of the learning outcomes. The final practice, connection, happens when PLEs and PLNs with OERs are gathered into a learning repository for the community to share (Siemens, 2006). Although the most synergistic of the three practices, adult learners require critical thinking tools, such as synthesizing, classifying and hypothesizing, within their reflexive practice. When connecting complexity thinking to their reflective practice, the folksonomy, or system of community classification, encourages others to make contributions and develops their social, teaching and cognitive presence (Garrison et al., 2000). One component of complexity thinking is interdiscursivity or developing an understanding of how discourses, structural knowledge domains of specified language usage, are connected rather than disconnected. For example, when an adult learner adds an OER or develops and distributes a multimedia artifact to other community members, interdiscursivity happens when the adult learner describes additional uses and grade levels beyond the original use of the artifact. When other members contribute to the original description of the artifact with additional uses in multiple grades, further connections develop using interdiscursivity. As online learning has been a key component to successful communities of practice throughout

this paper, the challenges of online learning will be discussed: digital literacy, pacing in a digital world and creating digital activities that promote learning and collaboration.

2.5. Online learning

Online learning physically separates the adult learner and educator in time and space through some sort of electronic medium. This separation raised the question of how to integrate authentic social presence and co-presence activities amongst members who are physically and professionally separated (Bronack et al., 2008; Herrington, Oliver & Reeves, 2002; Rovai, 2001). According to Anderson (2003), with interactions a critical part of any educational system, when universally flexible and adaptable courses are created and adopted with collaborative efforts of OLCs, adult learners' diversity and educators' autonomy are respected and institutional standardization are increased. Consequently, once any technology is accepted into a curriculum, any member experiencing software changes or cross-platform requirements may precipitate the necessity to introduce solutions that are flexible, fast, and for the most part, fluid. For example, when trying to remain current and duplicate the business model of technology, upgrades happen every six to eighteen months and stakeholders correlate emotional upheaval with constantly negotiating digital literacy (Kay, 2006).

Change is driven by available technologies but it is also driven by the winds of political and economic change determining expectations of technology use. Just as research requires 'deep' reading and critical thinking skills, OLCs require personal awareness and skills to differentiate between practices that are cutting edge or just trendy. Changes should be considered in light of their potential impact to the individuals and the community, not for the sake of change itself (Bates, 2005). Too often these inevitable changes are heralded with

much fanfare while sending educators and adult learners off to meet whatever fate awaits their teaching-learning environment. In many cases, without proper guidance and communication systems during the inaugural ‘voyage’, the teaching-learning environment flounders and the results are disastrous. Although theoretically sound, the impact of the changes to the educational system fails and is analogous to the fate of the Titanic that sank despite the prowess of its engineering (Schmoker, 1996).

A further responsibility is providing evaluation and feedback in stages. Stages of evaluation and feedback prevent unforeseeable results from the changes. In this way, changes are not perceived as harmless as a butterfly fluttering its wings to one member and instead develop into a typhoon for educators, adult learners, administrators or other departments, such as information technology or library services. Within an online learning environment, communication, interaction, and collaboration between educators and adult learners facilitate change to its community members, knowledge domain and distribution practices. As members move through their curriculum, they accept new roles of learner, teacher, leader or at times, a combination of the three. The role switching depends on members’ past experiences, current context, expertise in communities or online learning, and the life stage of the community (Garrison et al., 2000). Digital literacy, pacing and digital activities further challenge the online learning of the individual and the membership as a whole.

2.5.1. Digital literacy

As technology has become near ubiquitous to homes, businesses and learning, the model of excellence in digital literacy has become impossible to determine. Maintaining (and usually increasing) this digital literacy is important to adults pursuing lifelong learning. Yet, within the defined infrastructures of a traditional classroom, there is never a ‘good time’ to

introduce a new technology to an OLC. Usually the responsibility of training the membership defaults once again to the educator or a few technology-savvy adult learners. Within a digital habitat, rather than one member being expected to develop and maintain digital literacy for the entire community, this activity is distributed to all digital habitants through practices of stewardship and mentorship (Wenger et al., 2009). Such distributed collaborations dissipate standard practices of course design by defining static roles. ‘Top down’ educator-centred curriculum defines the educator as the keeper of required knowledge while ‘bottom up’ learner-centred curriculum defines the learner as the keeper of relevant knowledge within the teaching-learning world (Conole et al, 2008; Smith & Ragan, 2005). Distributed activities, such as learning technology from other members in the digital habitat, create an opportunity of optimal communal learning. Yet, use of dynamic tools and technologies establish expectations of immediate reciprocity that is not possible for one member or desirable for another. Ultimately, digital literacy is learned through distributed means and the pacing of the course activities needs to be addressed.

2.5.2. Pacing

In face-to-face classrooms, educators set the pace of learning, balancing the adult learners’ and disciplines’ requirements. Early practices in technology-based environments allowed adult learners to either move forward or stay with a concept without being dependent on the pacing of the face-to-face instruction or the virtual group. In this way adult learners were less likely to become frustrated or overwhelmed by the group pace and “advance their learning outcomes, increase their satisfaction on their learning performance, and ... spend more time on learning” (Ku, Huang & Chan, 2008, p. 196). One detriment of self-paced online learning was the risk that learning becomes less a place for discourse and

collaboration and more of an assembly line of learning outcomes. Second, self-paced online learning created unreasonable workloads for educators and adult learners. Expectations of a 24/7 virtual class including social, teaching and cognitive presence became arduous without community feedback strategies addressing high enrolment courses and self-paced options (Anderson T, 2008; Garrison et al., 2000). Both detriments were resolved with a collaborative learning design and an OLC that either buoyed or grounded any member's progress outside the traditional classroom. Therefore, how digital activities are prepared and presented to adult learners has become important.

2.5.3. Digital activities

Learning in a traditional classroom and interacting through an online learning activity provide similar opportunities to socialize, attain knowledge, and critically reflect with other colleagues. How members interact in either a face-to-face or online environment requires an adjustment of thought and actions. Physical cues are lost in the virtual world and require a user to depend on others to provide a sense of scale, direction or location (Krug, 2006). The introduction of an online collaborative critical reflection activity for members lessens the adult learners' resistances to changing their existing learning processes. As an example, when adult learners, educators and skills or subject specialists discuss and critically reflect in a structured form, resistance to these new instructional strategies lessen (Rovai, 2007). Such structured collaborative opportunities include discussion forums, blogging and online journals.

Three facets create opportunities to learn and collaborate: a community fostering social presence/co-presence, a knowledge domain inspiring discussion and a reflective practice with action plans to focus the character of communication. Separately, they move a

cohort closer to learning and collaboration. Together, they interact then delineate the lasting impact of these newly formed relationships. The form of social organization creates synergistic development and maintenance from an OLC to an online community of practice including the creation of the knowledge domain (Wenger et al., 2009). The capacity for communication increases through social media practices, such as blogging or discussion forums, when a common experiential learning experience is introduced. The remainder of this chapter discusses the importance of incorporating the experiential learning cycles and reflective practice to enhance learning and collaboration.

2.6. Experiential learning

Without collaboration, a course becomes a generic product where the curriculum resembles a single, unquestionable 'truth' that is “one of the hallmarks of totalitarian societies” (Westheimer, 2008, p. 6). In other cases, a course becomes so specialized for each adult learner that the educator's major role is relegated to tourist guide or traffic controller of the curriculum rather than a collaborative member of the learning community. Conversely, a course becomes rapidly designed, or built ‘on-the-fly’, rather than providing structure through curriculum design. Explicit and tacit knowledge become secondary to discussions of more personal natures, such as cultural and gender differences, personal knowledge paradigms, and reasons for enrolment (Doll, 2008; Rovai, 2002b). Although rapid course design is similar to Aoki’s living pedagogy, there is not the same structural description at the beginning of the courses when rapidly designed. Some adult learners show resistance to the number of changes proposed while ensuring all learning needs are met. Therefore, experiential learning presents an example of learning and collaboration building social presence and co-presence. This learning model provides two mechanisms to encourage

learning and direct knowledge domain creation with its experiential learning cycles including critical reflection. The first cyclical mechanism provides collaborative critical reflection while the second provides individual critical reflection required in situations like in-school practicum experiences.

2.6.1. Experiential learning cycles

The iterative experiential learning cycle consists of four parts. The cycle starts with direct common experience followed by personal critical reflection moving to individual conceptualization and finally collaborative negotiation where the cycle is ready to begin again (Crichton & Childs, 2008). The iterative cycle supports cosmopolitan education and inquiry-based learning. It focuses on the idea of a reflective practice being shared in a trusted learning community and uncovers the gap between what one believes and what one has done within a direct experience (Argyris & Schon, 1978). Conceptualization prepares the learner to externalize their tacit knowledge. Collaborative negotiation means taking the time to listen, inquire, reflect, research and then respond to another's conceptualization (Brookfield & Preskill, 2005). Within a digital habitat, asynchronous online tools, such as journals or discussion forums, give adult learners the time and space to distinguish between Piaget's accommodation (surface learning), assimilation (deep learning), and equilibration (recognizing discrepancies or bias creating an equilibrium/disequilibrium) throughout the experiential learning experience (Driscoll, 2005).

For this study, this is important because experiential learning provides the adult learners an opportunity to hone their complexity thinking and reflective practices. For example, community-service learning (CSL), a type of experiential learning, connects and refines the adult learners' learning experiences through reading, reflection, and discussions

within a common community experience (Stoeker, 2005). Stoeker (2009), a key scholar in the community-based research and service learning movements, considers CSL projects as a link that brings academic study, community service and structured reflection together. CSL projects can reinforce any discipline or an interdisciplinary grouping through structured reflection initially lead by an educator or a designated leader in the project. A community service project is designed to serve people in need of community outreach and education. The activities within the CSL project can include research or policy analysis. A CSL project develops a richer community connection, supports hyper-personalization of an individual's journey within a community, and promotes public spheres of democratic discussion. In this context, democratic discussion becomes synonymous to collaborative negotiation, the fourth step in the iterative experiential cycle (Crichton & Child, 2008). Both terms mean taking the time to listen, inquire, reflect, research and then respond to another's suggestion. Practicing democratic discussion or collaborative negotiation utilizes the four global perspectives in education today: collaboration, cooperation, communal learning and critical reflection (Brookfield & Preskill, 2005; Pountney, Parr & Wittaker, 2002). Collaborative, cooperative and communal learning activities rarely move adult learners to common outcomes in a linear, timely fashion. The key, as with any experiential learning, is a sustainable reflective practice being encouraged throughout the CSL projects. The iterative experiential learning cycle — direct common experience, critical reflection, conceptualization, negotiation — is part of the CSL curriculum design and may be developed and maintained by the stewards and mentors within the digital habitat (Crichton & Child, 2008). However, individual reflective practices support the adult learner's individual learning journey, especially during the in-school practicum experiences.

2.6.2. Individual reflective practices

A common practice of adult learners is to consider reflection as the final stage of an assignment checklist rather than an iterative feedback cycle of plan-act-observe-reflect throughout the learning experience (Schon, 1987). Using an example of a lesson plan in a classroom demonstrates this feedback cycle. The adult learner plans a lesson, acts on the lesson plan in a K-12 classroom, observes if the learning outcomes are met and reflects on how this lesson plan could be presented next time. At this point, the adult learner adds action to the reflection by returning to the lesson plan and noting the adjustments before the lesson is acted upon again. Usually, this type of reflection only involves the individual's experience and does not include any collective reflection of the actions within the learning community. As demonstrated by the experiential learning example earlier in the chapter, critical reflection becomes iterative through stages of an ongoing cycle (Argyris & Schon, 1978; Crichton & Childs, 2008). As well, when engaged in democratic discussions, critical reflection is an important component. The goal of providing these iterative cycles to adult learners is the more often these cycles are used, the easier it becomes for the adult learner to consider this part of their ordinary thinking, similar to being introduced to a new computer interface.

The assumption that critical reflection and democratic discussions are part of every adult learner's ordinary thinking develops an achievement gap for some adult learners. An achievement gap is similar to an instructional gap in instructional design. The instructional gap is the variance between the desired standard and current standard of a learning objective (Smith & Ragan, 2005). In this instance, an achievement gap is the disparity between the expectations of common knowledge in a curricular design and the actual common knowledge

of the adult learner. This gap can create tensions and stress for any member in an experiential learning environment.

For example, there is an expectation that all adult learners understand the functions of a word processing package. Adult learners may know how to 'key data into a document'; however, when using specialized functions such as tables of content, the adult learner reverts to what is known, keying data into a document. Now an educator, who knows the specialized functions of a word processing package, asks the adult learner, who does not know, to edit a document. The educator expects the time taken to achieve the editing should only be a few minutes; whereas, the real time for an adult learner to make the editing changes takes far longer. After the educator's editing request, the adult learner becomes tense which may be misinterpreted by the educator as a reaction to the feedback. For some adult learners, a similar experience develops when asked to critically reflect on an assignment or activity by an educator.

Five possible causes create this achievement gap when adult learners are asked to reflect: time, learner resistance, lack of modeling, espoused theory (Argyris & Schon, 1974), and use of dynamic tools and technologies. First, time is required to successfully reflect; yet, many adult learners feel they have little time for such activities. Second, the learners who have only experienced extrinsic or explicit knowledge tasks to develop their skills may show resistance to the completion of such an intrinsic task. Helen Barrett (2006) warns these activities should not be seen as a compliance activity or a glorified scrapbook activity. Rather, critical reflection should be seen as an opportunity to practice qualitative research skills, such as observation or informed narratives as used in participatory action research. Third, modeling is an important component for learner engagement. Educators may have as

many outside obligations as their adult learners; however, by modeling their professional reflective practices, adult learners recognize the value to the practice. Fourth, Argyris and Schon (1974) describe espoused theory as how one responds because the response is an ‘accepted response’ for that culture or community. They explain:

When someone is asked how [one] would behave under certain circumstances, the answer [one] usually gives is [one’s] espoused theory of action for that situation. This is the theory of action to which [one] gives allegiance, and which, upon request, [one] communicates to others. However, the theory that actually governs his actions is this theory-in-use. (pp. 6-7)

For some adult learners, the written outcome of a critical reflective activity is meant to have a ‘correct’ response, similar to a K-12 student wanting to give the teacher the ‘right’ answer. Finally, use of dynamic tools and technologies create expectations of prompt feedback that may not be desirable in all intercultural settings or available within the entire community. The achievement gap demonstrates Aoki’s (2000) concepts of a “living pedagogy” where planned and lived curriculums are incongruent and brings the discussion back to curricular design’s challenges in an online learning environment.

2.7. Summary

Traditionally, teaching-learning theories were accrued, interpreted, and evolved within higher education institutions. Homogeneous solutions were initiated and based on defined constructs that determined the need for change and contained predictive qualities since the research and education community demonstrated uniformity. The number of floors in the library and the number of professors in residence limited any instruction and research. In the 21st century, the vista defining stellar teaching-learning methodologies explodes into

global phenomena with OERs, PLEs, and PLNs. Educators and adult learners are obligated to continuously update their knowledge, learning, and teaching practices. With technology integrated in the on-campus classrooms, individual learning paths are designed, implemented, and encouraged by educators and the community membership. Knowledge and personal experience are shared and analyzed through public spheres of democratic discussion (Rovai, 2002b). However, this learning is neither time-specific nor linear and happens continuously as adult learners move through their teaching-learning world. The next chapter outlines the data collection methods, the contributions of phenomenology, and how the textural description of the data collected from ETEP participants corroborate the diversity within these 21st century vistas.

3. Chapter Three: Research methodology

In our busy world of education, we are surrounded by layers of voices, some loud and some shrill, that claim to know what teaching is. Awed, perhaps, by the cacophony of voices, certain voices became silent and, hesitating to reveal themselves, conceal themselves. Let us beacon these voices to speak to us, particularly the silent ones, so that we may awaken to the truer sense of teaching that likely stirs within each of us... ~ Ted Aoki, 1992, p. 188.

3.1. Introduction

This chapter becomes an example of Aoki's (2000) "conjunctive space" or the point where transformation happens as research voices surrender to the collective voice of participants in this study. The structural development of curriculum-as-plan yields to a textural description of curriculum-as-live(d). Finally, the potential of Wenger's (1998) "learning a practice" is measured by the participants' capacity to become preservice teachers. In the first two chapters, the curriculum design and theoretical foundations of ETEP were defined. This collective voice of research theorists "that claim to know what teaching is" (Aoki, 1992) determined the purpose of a structural description by

- answering Pinar's (2009) "key curricular question — what knowledge is of most worth?",
- developing Aoki's (2000) "curriculum-as-plan",
- and determining the potential of Wenger's (1998) "learning a practice."

In contrast, the final two chapters will serve to "beacon these [silent] voices [of adult learners] to speak to us" (Aoki, 1992). This collective voice of participants will develop a textural description by

- answering Pinar's (2009) key curricular question,
- describing Aoki's "curriculum-as-live(d)",
- and determining the capacity of Wenger's (1998) "learning a practice."

The next two sections provide the research's structural description with an overview of the data collection methods and an explanation of the contributions of phenomenology.

Following this, the study's textural description of the population as a whole and then within each group includes the similarities and difference of demographics and structure. The chapter ends with a summary that interweaves a cohesive thread through the research structure and textural descriptions that follow in the next chapter.

3.2. Data collection methods

Data was collected in exactly the same way and at exactly the some points for each group's on-campus course work and in-school practicum experiences. The researcher's natural observations were restricted to the on-campus courses, including face-to-face and online observations. The rest of the data was collected in five parts:

1. Pre-practicum Intercultural Development Inventory (IDI)
2. Background Questionnaire
3. Classroom Community Survey (CCS)
4. Semi-structured Interview
5. Post-practicum IDI

The administration of and rationale for each data collection tool is described below.

3.2.1. Intercultural Development Inventory (IDI)

Hammer, Bennett and Wiserman (2003) developed the 50-item IDI and its ten demographic questions with a cross-cultural sampling of respondents to measure intercultural sensitivity. Intercultural sensitivity is the ability of an individual to recognize and experience various cultural differences. Hammer et al. (2003) argued that greater intercultural sensitivity indicates a greater intercultural competence, or ability to think and act appropriately in

various intercultural contexts. A highly reliable measure with little social desirability bias, the theoretical framework of the IDI is based on the Developmental Model of Intercultural Sensitivity (DMIS) developed by Bennett (1993). The DMIS uses a six-stage scale to show the development of an individual's cultural adaptation. The IDI measures five of these stages in its scale: denial, reversal, minimization, acceptance and adaptation. The IDI was administered before and after the practicum to observe if any significant changes occurred while participants were in their in-school practicum experiences. The online IDI was delivered by a qualified IDI administrator. The IDI administrator distributed usernames and passwords to participants, compiled the pre- and post-practicum IDI reports, and met with groups or individuals to discuss their results. The IDI administrator provided the researcher with the group reports only.

The IDI is used in this study because of the importance of intercultural relations in both global and domestic contexts when considering professional and personal development. The IDI provided the participants and the research an understanding of perceived and development orientations along the IDI scale. The IDI results provide a triangulation opportunity to compare other data collected regarding intercultural experiences.

3.2.2. Background questionnaires

The components of the background questionnaire identified the factors considered in this study to vary the achievements or outcomes of a group of adult learners in a blended learning teaching-learning environment. The questionnaire results provide the description of each group's demographics. Additionally, there were opportunities to triangulate these results with interview comments and other instruments used in the study. Participants were asked to provide

- demographic information: age, self-defined gender, native language and marital status;
- personal cultural and community experiences: place of birth, travel, areas they have lived in, courses they have taken about cultural/community similarities and differences;
- work experiences: full or part-time positions held for more than six months
- school experiences: courses taken by the participant and considered having a theme involving community or culture;
- computer experience: with online learning, general skills and abilities the participants felt were necessary to complete their program and be proficient in their career;
- and familiarity with the educators: how many other courses have they taken with the educators, courses taught where the educator had some influence.

Each participant chose a pseudonym. For the background questionnaire, individual responses have been coded into larger categories. This practice was used due to the small participant numbers and to maintain the phenomenological textural descriptions of groups describing their lived experiences (Cresswell, 2007). Foot's (2004) age structured generational cohorts represent the participants' ages. Cultural and community experiences have been grouped into informal and formal training (Hammer, Mitchell & Wiseman, 2003). Informal training includes living for extended amounts of time in communities outside their place of birth or whether they had been provided with intercultural training while employed. Formal training refers to courses identified by the participants as having a cultural or community theme. The courses have been coded to larger Arts or Sciences disciplines. For example, whether or not a participant mentioned the name of the course or number of the course, the discipline heading was used, such as anthropology, history or English. Each participant's work experience has been coded to the National Occupational Classification (NOC), the authoritative source for

the Canadian job market. Software functions, rather than specific programs, have been used to report computer experiences.

3.2.3. Classroom Community Survey (CCS)

Rovai (2002a) developed a quantitative tool, the Classroom Community Survey (CCS), to be used in conjunction with his qualitative research with discussion forums (Dawson, 2006; Rovai, 2007; Vaughan & Garrison, 2005). As educational technology expanded into 3D immersive virtual worlds, Rovai's (2001) work of discussion forums provided the basis for Presence Pedagogy (P2). P2 creates a teaching-learning environment grounded in social constructivist theory and engages learners, teachers, and others associated with the teaching-learning environment in a broader community of practice. In these environments, such as Second Life, everyone has the potential to experience various roles while learning from each other (Bronack et al., 2008). However, the adult learner's capacity to learn in the community is determined by the connections of social and co-presence. When learning a teaching practice, similar strategies are used in the university's teaching-learning world as the virtual world described by P2. Therefore, the CCS measures an adult learners' perspective on connectedness and learning in a blended learning environment (Rovai, 2002a).

This self-reporting instrument consists of 20 items. Following each item is a five-point Likert scale of potential responses: strongly agree, agree, neutral, disagree, and strongly disagree. Scores are computed by adding points assigned to each of the 20 five-point items. These items are reverse-scored where instructed to ensure the least favourable choice is always assigned a value of 0 and the most favourable choice is assigned a value of 4. Scores on each sub-scale range from 0 to 40, with higher combined scores reflecting a stronger sense

of classroom community. As with the background questionnaire, the individual results have been tabulated and the group results are presented.

As social learning theory was a prevalent part of this study, the CCS provides an opportunity in the textual descriptions to compare the survey's results with individual responses in the semi-structured interview. The CCS was tested in other blended learning populations with a high level of dependability (Rovai, 2002a; Rovai, 2007). This comparison gives an additional opportunity for triangulation (Cresswell, 2007).

3.2.4. Semi-structured interviews

Digitally sound-recorded semi-structured interviews were conducted with each participant. These interviews were conducted after the practicum period of each participant to maintain consistency. Each interview began with a description of the interviewing process including the understanding that any question could be refused and at any point the interview could be discontinued. Following the first question, the participants were given the opportunity to describe personal perceptions and interpretations of group communications and activities. After transcription, the interviews were analyzed for themes in each group. These themes were then examined for similarities and differences between the two groups.

3.2.5. Naturalistic observation

During the fall and winter terms, the researcher observed the online discussions and face-to-face on-campus interactions. These observations were noted in a journal. The researcher's role in these interactions with participants and their cohorts was in a technical support role in three formal situations as part of a paid position at the university: the participants' computer lab coordinator, an invited support person to the community service learning project's C/LMS site where participants posted their reflections, and an educator's

technical support and monitor for a discussion forum. Concurrently, the researcher served as a support person for an educational technology lab. The lab and support was available to any adult learner, educator, support staff, or administrator needing assistance to complete assignments, presentations, or group projects. During the analysis of the qualitative data, the researcher's journal notes were used as a reference rather than the participants' content in the online discussions and reflections.

3.3. Contributions of phenomenology

Phenomenology, a qualitative inquiry and research design, provides an opportunity to explore individual concerns and explain it within the context of a community (Cresswell, 2007). In the field of blended learning, individual, group, or institutional behaviour requires holistic studies rather than research seen as manipulated by a researcher possessing an insider's perspective. Quantitative research in social sciences strives for testable and confirmable theories that explain phenomena by showing how they are derived from theoretical assumption. Thereby, quantitative research reduces social constructs to variables in the same manner as physical constructs and attempts to tightly control the variable in question to see how other variables are influenced. Long-term, large-scale research projects and subsequent theories use institutional, national, and transnational surveys to design insentient courses and defer the practicality of changing knowledge domains or discussing technological isolation of participants (Ausburn, 2004; Bates, 2005; Graham, 2006; Garrison, 2000).

Looking for immediate, smaller scale solutions, researchers look for studies suited to collaborative, cooperative or communal learning groups within controllable parameters that enhance professional autonomy and showcase the educator's teaching perspectives (Pratt,

2002). With qualitative representation, research becomes an intensely personal and subjective style (Neuman, 2006; Shulman, 1997). The phenomena crystallize with “infinite varieties of shapes, substances, transmutations, multi-dimensionality, and angles of approach” (Richardson, 1994, p. 92) between the researcher, the participants and the reader. The challenge becomes collecting an adequate amount of qualitative representations to describe an institutional curricular design that meets the diversity of its membership with educators, adult learners, administrators, practitioners, and other leaders.

For example, a threshold concept in this study is one that “once grasped, leads to a qualitatively different view of the subject matter and/or learning experience and of oneself as a learner... [and] a possible shift in identity” (Kiley & Wisker, 2009, p. 432). To analyze and discuss threshold concepts, mechanisms need to be built into the curriculum design. One example of such a mechanism is a collaborative community of practice paralleling existing curriculum that supported the on-campus courses, in-service practicum experiences and its membership. In a community of practice, the adult learners may reassess and redefine their personal empowerment, equality of opportunity and conviviality offsetting their perceived cost of learning and minimize the resistance to new learning processes (Atherton, 2009; Downes, 2009a).

A mixed-methods collection of data with a phenomenological framework supports the emerging field of blended learning research. Bonk et al. (2006) predict blended learning changes the involvement of educators and learners in the delivery of the curriculum with expert-to-novice online learning familiarity and individual versus collective learning preferences. Educators and learners seek flexibility to meet multiple modes with content creation, distribution and communication. Outside obligations constrain social cohesion,

perceptions, definitions, negotiations and creation of knowledge. Technology availability and expertise combined with intergenerational and intercultural interactions determine a diverse teaching-learning environment. Models, such as community of inquiry, and theories, such as connectivism, meet the diverse community requirements (Garrison et al., 2000; Siemens, 2006).

3.4. Validity and reliability issues

Quantitative research in social sciences uses the traditional meanings and types of reliability and validity within the scientific method. However, qualitative research conceptualizes reliability and validity to mean trustworthiness, rigor, and quality of participant's responses (Cresswell, 2007). It is through this association of quantitative and qualitative that validity and reliability are achieved from the qualitative researcher's perspectives. By choosing a mixed-methods approach for this study, research bias was controlled and the researcher's propositions about these social phenomena were strengthened. By using triangulation as a validation strategy, the research design developed multiple points of view through various data collections and improved accuracy of results (Cresswell, 2007; Neuman, 2006).

3.4.1. Personal bias

One benefit for the researcher being the main data collection instrument for this study is best summed up in the ancient Chinese proverb 'Tell me, I forget. Show me, I remember. Involve me, I understand.' However, this research came with the challenge of maintaining a systematic approach while conducting an evolving, inductive form of qualitative inquiry. The researcher's personal bias in this study came from the assumption that adult learners in a blended teaching-learning environment reflexively, rather than reflectively, reacted to new

experiences. Qualitative research challenged the researcher to set aside the bias as much as possible and generated new concepts of explaining human behaviour within a given context. Quantitative data collection, like Rovai's (2002a) CCS, provided the opportunity to analyze participants' qualitative responses and separated the important from the incidental. In the case of the CCS, the important components were learning and connectedness in the classroom to indicate the forming of a community. The incidental, in this instance, was anything else. Both were easily recognizable based on Rovai's (2002a) theory, hypothesis, concrete variables, instrument, and analysis. Conversely, a myriad of entities were imparted when analyzing participants' responses in the qualitative data. Once coded, categorized, and analyzed, the themes were discovered and the incidentals were discarded providing this research with a rich collection of data. Phenomenology, a qualitative inquiry, provided a frame to review the theorists and researchers, explore the participants' views, and explain communal themes participants found most important.

3.5. Population of the research

All the participants volunteered from two cohorts involved in a two-year post-secondary professionally designated teacher education program, ETEP. The overall ETEP teaching-learning context was detailed in the first chapter with two teaching-learning environments: on-campus courses and in-school practicum experiences. Participants experienced both teaching-learning environments and resided in one of two sections of a first or second year cohort depending on their enrolment during the fall and winter terms from September, 2009 to May, 2010. Each ETEP group experienced blended learning opportunities with:

- face-to-face collaborative, cooperative and communal learning activities,

- technology-based activities through an institutional C/LMS, such as Moodle or Blackboard,
- in-school (K-6 classroom) observation days,
- a colloquium for professional development,
- and finally, the in-school practicum experiences for an extended period of time.

Every participant had a minimum of 90 additional university credits, a requirement to enter ETEP. Each participant provided a pseudonym which was used throughout the study.

3.5.1. Distribution

There were 120 possible volunteers in the ETEP from the two cohorts represented in this study. At the beginning of the data collection, there were nine participants in a group of first-year adult learners, hereafter called Y1, and 21 participants in a group of second-year adult learners, hereafter called Y2. All 30 ETEP participants completed the pre-practicum IDI. Only 21 of the original 30 participants completed the study, five in Y1 and 16 in Y2. The demographics in the next chapter are representative of this change in participant numbers. First, the demographics of the 30 participants who completed the pre-practicum IDI will be discussed with the IDI results. The IDI had 10-item demographics which will be the source of this discussion (Hammer, 2009). Next, the background questionnaire provided questions regarding demographics and these results will be considered for the rest of the study.

3.6. Summary

A mixed-methods data collection was chosen for this study since behaviour was studied holistically rather than manipulated in a controlled experiment with the researcher possessing an insider's perspective. Phenomenology, a qualitative inquiry, provides an emerging field such as blended learning a better representation of adult learners' diverse

situations and applied well-developed sociology theories of group dynamics (McVay Lynch, 1998). Qualitative research rejects the notion that social sciences can be studied with the same methods as the natural or physical sciences and considers human behaviour as always bound to the context of occurrence. This research becomes an intensely personal and subjective in style affecting validity and reliability (Neuman, 2006; Shulman, 1997). Quantitative research methods test and confirm qualitative explanations of phenomena and show how theories are derived. Such research reduces social constructs to variables in the same manner as physical constructs and attempts to tightly control the variable in question to see how other variables are influenced. In this research, data was qualitatively collected through passive observations and semi-structured interviews. Background questionnaires, Rovai's (2002a) CCS and IDI group reports provided the quantitative data. Triangulation was used to improve accuracy and reliability of results by looking at multiple points of views (Neuman, 2006).

4. Chapter Four: Data collection

Sharing knowledge is not about giving people something [i.e., lectures, textbooks], or getting something from them [i.e., assignments]. That is only valid for information sharing. Sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating [personal] learning processes. ~ Peter Senge, 1998, para. 8.

4.1. Introduction

This chapter, data collection, develops the foundation for the ETEP adult learners' textural descriptions. The population of the study has been grouped by enrolment to either the first or second year of ETEP. Each group's experiences have been generalized to on-campus and in-service practicum experiences. The individual course design offers a divergent point in online activities and experiential learning. Each of the groups had diverse populations and activities throughout the term. Examples from the semi-structured interviews support the quantitative data throughout this chapter and the next chapter. These examples connect the theoretical structural descriptions of Pinar, Aoki and Wenger with the data collection and the participants' textural descriptions.

4.1.1. Y1 activities

The fall term for Y1 included on-campus courses with one-day-a-week school observations. The winter term started with on-campus courses followed by an in-school practicum experiences. The monitored course focused the semi-structured interviews and was an introductory course in policy and administration. The experiential learning in the course had adult learners observe and then report their experiences at school board meetings. The agenda items at the meetings coincided with course materials including readings and a textbook with theoretical perspectives of current issues within the K-12 environment. Each week in class, the cohort discussed one of seven K-6 current issues such as communications

with parents or inclusive elementary classrooms. For the following week, small groups (four to five participants) on a C/LMS discussion forum answered a question posted by the educator and then replied to other posts with the group. The weekly participation mark was achieved by one original post to answer the educator's question and at least one reply to another adult learner's original post.

4.1.2. Y2 activities

The fall term for Y2 included on-campus courses with one-day-a-week school observations. The winter term started with the in-school practicum experiences followed by an individual capstone project overseen by an assigned faculty supervisor. The monitored course focused the semi-structured interviews and was an introductory course in art and the elementary classroom. The experiential learning in the course included a volunteer opportunity to participate in a community service learning (CSL) project. Everyone in the course created a seasonal card as an individual assignment. The CSL project had volunteers distributing these cards to a homeless population at a local shelter. Small groups of volunteer adult learners met for an afternoon at the shelter over a period of three weeks. The visits included the CSL program coordinator from the university and employees from the shelter. Following the visit, there was a ten to fifteen minute debriefing activity with the CSL program coordinator and the shelter employees. Volunteers were encouraged to discuss their experiences and asked any questions about the shelter or the programs housed there. The CSL program coordinator also facilitated a collaborative reflection with the volunteers. The volunteers were asked to submit a personal critical reflection of about one page outlining their experiences. These online reflections were only read by the CSL program coordinator

and the researcher. The CSL program coordinator responded to each critical reflection individually. The table encapsulated the population and activities of the groups.

Table 4.1: Populations and activities for Y1s and Y2s

Group	Participants: Pre-practicum IDI (begin)	Participants: Completed Study (end)	Fall term	Winter term	Monitored course	Experiential Learning	Online Activity
Y1	9	5	On-campus courses; weekly in- classroom observations	On-campus courses; in-service practicum experiences	Policy and Administration	School Board Visits	Small group discussion forum
Y2	21	16	On-campus courses; weekly in- classroom observations	In-service practicum; capstone project	Art and the elementary classroom	CSL	Reflection

The next three sections of this chapter present quantitative and qualitative data collection methods. Each section includes the specialized terminology (if required), the general observations, the collective results of each group and finally, the comparison of qualitative and quantitative data. The final part of each section is augmented with quotations from the participants, where appropriate. The first section is the pre-practicum Intercultural Development Inventory (IDI). Next, the background questionnaire provides the each group's demographics that participated in the remainder of the study. The background questionnaires include the group's experiences with culture, community, work, school and computers. The following section, Rovai's (2002a) Classroom Community Survey (CCS), overviews the classroom results, then compares and contrasts the two groups' results. The next section discusses other findings in the semi-structured interviews. There is a brief explanation of the post-practicum IDI and, finally, the summary overviews the data collection.

4.2. Pre-practicum Intercultural Development Inventory (IDI)

4.2.1. IDI terminology

Specialized terminology used to interpret the IDI results is placed here, rather than the Glossary. The definitions are from an article by Hammer et al. (2003).

Continuum orientations: The results of the IDI are presented on a continuum of intercultural orientations. The definitions are presented in the order presented on the IDI continuum.

- Denial: an orientation that likely recognizes more observable cultural differences (e.g. food) but, may not notice deeper cultural differences (e.g., conflict resolution styles), and may avoid or withdraw from cultural differences.
- Polarization: a judgmental orientation that views cultural differences in terms of ‘us’ and ‘them’. This can take the form of:
 - Defense: an uncritical view toward one’s own cultural values and practices and an overly critical view toward other cultural values and practices
 - Reversal: an overly critical orientation toward one’s own cultural values and practices and an uncritical view toward other’s cultural values and practices
- Minimization: an intercultural orientation that “highlights cultural commonality and universal values and principles that may also mask deeper recognition and appreciation of cultural differences”
- Acceptance: an intercultural orientation that “recognizes and appreciates patterns of cultural differences and commonality of one’s own culture and other cultures”
- Adaptation: an orientation that is capable of shifting cultural perspective and changing behaviour in culturally appropriate and authentic ways

Developmental orientation: the point on the continuum where the IDI assesses the group

Ethnocentric orientations/stages: Orientations that polarize cultural difference, either by avoiding or denigrating other cultures (DD, Denial/Defense orientation) or a Reversal worldview where other cultures are viewed as superior and one denigrates one’s own culture (R orientation). A “tolerance” or “transitional” orientation highlights cultural commonality and universal values while minimizing cultural difference (M orientation).

Ethnorelative orientations/stages: Orientations able to recognize and comprehend cultural differences and to adapt behaviour and perception according to cultural context

Leading orientation: the developmental orientation is assessed one orientation lower on the scale from the perceived orientation (AA orientation: Acceptance or Adaptation on the continuum)

Orientation gap: the difference between the developmental and perceived orientations

Perceived orientation: the point on the continuum where the group places itself

4.2.2. Canadian generational cohorts

The section introduces four Canadian age structured cohorts (Foot, 2004). Foot (2004), a Canadian demographer, noted Canada had a unique population with age differences more pronounced than other countries. Therefore, rather than the age categories reported on the IDI, these generations represent age cohorts. Each cohort has uniquely impacted employment and education (Foot, 2004). The definitions are presented in chronological order rather than alphabetical.

Baby Boomers: Born 1947 to 1966, this cohort expected hard work and long hours to achieve their goals. Most boomers have come from competitive education and work force environment, especially the youngest in this cohort. This competitive nature was due to the large numbers of babies born in Canada during this time. Foot (2004) has added two years to the Canadian Baby Boomers' cohort compared to the United States cohort because Canada's legalization of birth control was two years later than in the United States.

Baby Busters: Born 1967 to 1979, according to Foot (2004), baby busters have had an easier time than boomers. The reduced numbers of baby busters compared to the boomers have given them the choice of schools, work opportunities and a somewhat less competitive edge.

Boom Echo: Born 1980 to 1995, this cohort represents the children of the boomers. Their largest Canadian populations reside in Ontario and Western Canada since this was where their boomer parents found jobs and settled to raise families. The boom echo has driven the educational system since their cohort entered elementary school in the late 1980s. Now, most have begun post-secondary or are ready for the workforce. Their expectations of entering the workforce as the boomers retired has been impeded by a global economic down turn and the smaller cohort of millennium busters. This cohort's greatest asset is having their boomer parents as stewards and mentors who have survived competitive school and work markets.

Millennium Busters: born 1996 to 2010, a smaller cohort than the baby busters, millennium busters started the K-12 school system in 2003.

4.2.3. General observations

There were fewer males represented than females in either group. Two generations were represented in the Y1 with the largest percentage from Boom Echo as compared to three generations in the Y2. Y1 had a variance of education completed, from high school to master's level; whereas, Y2 had all completed a bachelor's degree. Both groups have resided the majority of time in North America. All participants spoke English as their native language. Y1 reported no ethnic minorities while 16% of Y2 reported being an ethnic minority. Every participant had taken at least one course in their formal education which provided cultural content. Y1 had a higher percentage, 87%, of never having any informal cultural training with Y2 reporting 59% never having informal training.

The groups' results showed a tendency to substantially overestimate their intercultural sensitivity and competence in cultural situations based on their perceived and developmental orientations. This means in intercultural situations, the participants would considerably

overestimate their ability to deal effectively with cultural differences. The IDI results show that each group's perceived orientation of their intercultural sensitivity is higher than their developmental orientation and reveals a significantly large orientation gap. In both cases, the orientation gap was significantly greater than seven points and shows a significant difference between the groups' perceived and developmental orientations. Both groups had a leading orientation from minimization to acceptance. The following tables encapsulate each group's demographics discussed in Section 4.4.3.

Table 4.2: Y1's demographic results

Identifier n = 9	Gender	Generation	Education Level (Completed)	Lived	Ethnic Minority	Formal Intercultural Training	Informal Intercultural Training
Male	17%						
Female	83%						
Baby Boomer		0%					
Baby Bust		17%					
Boom Echo		83%					
High School (no post- secondary degree)			17%				
Bachelor degree			67%				
Master degree			17%				
Canada				100%			
Yes/No					0%/100%		
Yes, once						67%	0%
Yes, more than once						33%	17%
Never						0%	83%

Table 4.3: Y2's demographic results

Identifier n = 21	Gender	Generation	Education Level (Completed)	Lived	Ethnic Minority	Formal Intercultural Training	Informal Intercultural Training
Male	18%						
Female	82%						
Baby Boomer		12%					
Baby Bust		24%					
Boom Echo		65%					
High School (no post- secondary degree)			0%				
Bachelor degree			100%				
Master degree			0%				
Canada				100%			
Yes/No					6%/94%		
Yes, once						29%	12%
Yes, more than once						71%	29%
Never						0%	59%

Table 4.4: Y1 Intercultural Development Inventory (IDI) results

Perceived Orientation: Acceptance, 123.08

Rating						
Orientation	Denial	Polarization Defence/Reversal		Minimization		Acceptance
Scale	55	70	85	100	115	130
						145

Developmental Orientation: Minimization, 98.68

Rating						
Orientation	Denial	Polarization Defence/Reversal		Minimization		Acceptance
Scale	55	70	85	100	115	130
						145

Leading Orientation: $123.08 - 98.68 = 24.40$ (substantially overestimates)

Table 4.5: Y2 Intercultural Development Inventory (IDI) results

Perceived Orientation: Acceptance, 120.34

Rating						
Orientation	Denial	Polarization Defence/Reversal		Minimization		Acceptance
Scale	55	70	85	100	115	130
						145

Developmental Orientation: Minimization, 94.09

Rating						
Orientation	Denial	Polarization Defence/Reversal		Minimization		Acceptance
Scale	55	70	85	100	115	130
						145

Leading Orientation: $120.34 - 94.09 = 26.25$ (significant overestimate)

4.2.4. Discussion of the demographics

The greater number of females to males has been typical in ETEP. For example, for the 2009 graduation, 52 out of 57 graduates were female (UBC, 2010). The variances in both groups with generational and educational experience are examples of diversity in a cohort's

population; however, the variance does not mean there is any correlation between generational or educational levels completed and participants responding to Pinar's (2009) "key curricular question — what knowledge is of most worth?" For example, the variance of education levels completed in Y1, from high school diploma to master's degree, shows a range of post-secondary experiences. Personal preferences for teaching and learning styles also impact these responses. Two participants, Owen and Frankie, describe their experiences in the same classroom. Owen explains that an ideal classroom experience is:

...when [the educator] brings up controversial topics in class and things that are being talked within research and within policy and the school districts, not only in Canada but internationally...but it is difficult to have a class like that because you need everyone on the same page... A lot of students are not going to want to go out and read a bunch of articles ...how do you make sure everyone is ready for this kind of class?... but I can only take that so far by myself ... there's individuals within my class that we have similar capacities, I guess, and the professors are accommodating and they provide the structure and point me in the direction to go...then I go out and find what's important to me... and then come back to class to discuss... but how do you challenge every student like that?... that's my ideal class, does not mean it is for everyone and I recognize that...

For Frankie, Owen's classmate, it's a different story in the classroom:

...probably one of the best education experience I have had so far...[the educator] is well organized and knows [the] stuff and is really passionate with the subject and I think teaching makes the difference, makes the huge

difference... but the online experience has been a life line for me, there is just so much material out there. I can't honestly imagine what it would be like being a student without [the online experience] I am afraid to say. It is the ultimate learning tool ...

Owen and Frankie demonstrate Aoki's (2000) "two understandings of curriculum [reside]: curriculum-as-plan and curriculum-as-live(d)." For Owen, the face-to-face classroom is the place for discussion and socially constructed learning. The role of the educator is to provide a starting point and then let the adult learners discuss what is of most importance to them. On the other hand, Frankie looks for the face-to-face class to provide more of a lecture format from the educator that would bind the online discussions and specify topics.

To this point, the IDI demographics have shown the diversity that exists in groups of adult learners; however, the main focus of the IDI was the intercultural sensitivity and competence of the group. Based on their responses, one possible categorization of their classroom experiences was Owen expected more discussion than lecture and conversely Frankie expected more lecture than discussion. In their quotations and during the interview, both participants described the course as a good educational experience and stated that the overall flexibility of the curriculum design met their learning needs. These two examples demonstrate that even though an educator has a curriculum plan, the outcomes and expectations of each learner create a curriculum lived. Owen and Frankie's quotations also demonstrate the importance of developing a community of practice that supports multiple perceptions of how to learn a practice (Wenger, 1998). A possible conjecture, based on these quotations, is that if given the opportunity of a community of practice, Owen may connect with other practitioners in a face-to-face environment or with international practitioners

within a digital habitat. On the other hand, Frankie could become a steward or mentor in a digital habitat since the online experience is of greater importance in the response.

4.2.5. Discussion of intercultural competence

Hammer et al. (2003) determined that the more opportunities adults had to learn and discuss intercultural differences, the more sensitive and competent adults became to intercultural cues, especially in new environments. Formally, both groups in this study had attended at least one class that included intercultural discussions. Informally, a majority, 59% in Y1 and 83% in Y2, had never received any intercultural training. During interviews, many participants confirmed that they had few opportunities to discuss cultural differences and felt they have not been exposed to a vast array of cultural experiences. Therefore, the expectation was these adult learners may not be aware of cultural differences.

These results were supported by the general comments made by participants in the interviews about their cohort experiences in on-campus courses, individual experiences during in-school practicum experiences and their experiential learning, either by attending school board meetings or the CSL project at the homeless shelter. When asked if any cultural differences affected their cohort experiences during ETEP, the general consensus of the two groups was little or no cultural difference affected their experiences. A typical response from the group was similar to this quotation of participant Gina White when asked about cultural differences in the classroom: "...there wasn't any, well, I am sure there was but, like it didn't really come up. I think we are a fairly homogenous population so I don't think any cultural differences came up..." When asked specifically about cultural differences in the in-school practicum experiences, the majority again answered there was little or no cultural difference. When comments were made regarding cultural differences in the K-6 classrooms, many

participants only referred to visible minorities or ESL students with independent education programs. A participant, Edward, talked about diversity in the K-6 classroom with “four ESL students that all recently moved to Canada, one from Korea, one from the Philippines, one from Sweden, one from Austria ... within the last year... [and we] talked about how we are all different and yet we all have the same needs...” Another participant, Katie Doe, explained, “there was only a handful [of K-6 students] that were culturally different...I was quite surprised, given that we [classmates] were talking about how much of an influx of immigrants [there is] and I saw very little in the schools.” The majority of comments regarding cultural differences came from the Y2 and their CSL project experiences at the homeless shelter.

During the CSL project, adult learners visited a homeless shelter to distribute seasonal cards made during their on-campus course in art and the elementary classroom. To be immersed in an unfamiliar cultural experience, even for a few hours, relieved some adult learners’ initial anxiety. Lloyd explained:

... I have volunteered [at shelters] before, so I wasn’t very nervous but it was kind of interesting that you are not really put in your comfort zone by going into an extremely opposite community of what you are used to... I think for many of us, I know my friend was very nervous and didn’t want to say anything to anybody. But I wasn’t nervous and at the end, none of us were really nervous, it’s not difficult to have conversations with people, different people. I think it was a good learning experience... [the part I liked the most] was the singing, they were playing piano and singing and it was really great to

hear. It was cold outside and they were all sitting inside with their mugs of hot chocolate... there was great camaraderie...

When asked how this experience affected the teaching-learning world, Lloyd responded with an example from the in-school practicum experiences:

...being uncomfortable in a new situation? Yeah, perhaps. If I walk into the staff room, it's a pretty interesting camaraderie for the most part, depending on the school. And, although you're accepted as a student teacher, you are still an outsider. And so I felt it was very similar to the [shelter] situation. We were tolerated [at the shelter], we were tolerated but we weren't accepted as a member of the community because we don't live there or hang out there. And the same thing in the staff room at the school where, we are tolerated for the most part. They groan a bit when there are too many student teachers and there is not enough chairs for the real teachers to sit in, depends on the size of the school...

In both examples, Lloyd was explaining the feelings of being an outsider to an already existing community, looking in and feeling left out. Without the second quotation, that relationship was hard to distinguish in the first quotation. In the first, Lloyd described the experience and in the second, reflected on how the experiences impacted Lloyd's learning world. These unique personal experiences demonstrate the complex nature of experiential learning and the importance of collaborative reflective practice. These results and examples also demonstrate the groups' developmental orientation at the minimization stage of intercultural relations.

The IDI developmental orientation revealed an ethnocentric belief that one's own culture was the central reality creating a set of values and beliefs for a monoculture. For example, participants in this stage minimized differences between intercultural relations and focused on similarities between their culture and other cultures. The perceived orientation results showed the groups' perception of their intercultural competence in the acceptance stage. This stage is the first of the ethnorelative beliefs that means participants begin to understand their own culture in the context of other cultures. According to this stage, cultural differences were recognized and accepted as alternative solutions to intercultural relations. The leading orientation for Y1/Y2 shows a significant overestimate which means the groups overestimate their intercultural competence and expect their developmental orientation to be significantly higher. Since the IDI groups' results were a collective representation, the groups' tendencies cannot be considered as the tendency for each participant within this study.

From my observations during the two group meetings with the IDI administrator, many of the participants questioned the validity of the results and stated they felt they were more accepting of cultural differences than represented on the inventory. These questions and statements were considered typical responses for participants with a substantial overestimate of their intercultural competence. Hammer et al. (2003) suggest the response is especially prevalent in members of an ethno-group that is seen as the majority in the population. Such is the case in this study of most participants. There is only 6% identifying as an ethnic minority in the Y2. The participants were offered a second IDI after their in-school practicum experiences were completed. The results from that inventory, presented in Section 4.6, compared the two sets of results.

4.3. Background questionnaire

Since the IDI demographics represents all 30 participants rather than the 21 participants that completed the study, the demographics used for the remainder of the study will be those from this section. The individual responses and their categorizations are available in Appendix G: Background Questionnaire Categorizations.

4.3.1. Categories

The background questionnaire provided further categories that present cultural and community experiences as well as diversity within the adult learners' groups:

- Demographics: generation cohort, self-defined gender, native language, and marital status
- Cultural and community experiences: lived the longest in place of birth or another community (informal training), courses with a community or cultural theme (formal training)
- Work experiences: full or part-time positions held for more than six months
- Computer experience: with online learning, general skills and abilities the participants felt were necessary to complete their program and be proficient in their career
- Familiarity with the educator: how many other courses have they taken with the educators, courses taught where the educator had some influence

Brief descriptions of each groups' results are presented.

4.3.2. General observations

A majority of the ETEP participants in both groups were female. Y1 were from one generational cohort, Boom Echo; while, Y2 represented three generational cohorts. The majority of participants reported their marital status as single, with a larger majority of single participants represented in Y1 than Y2. Most participants were born and raised in Canada, with only 6.3% of the Y2 population born in another country and reported Dutch as their native language rather than English. Y2 had 25% of their population residing outside Canada

for an extended period. All of the participants identified one course with a cultural or community theme; however, there were a variety of disciplines identified including anthropology, history, cultural studies, English, literature, psychology and sociology. Most of the participants' work experience was coded into sales and services occupations. The majority of participants reported the computer experience they required to complete ETEP were word processing skills. Finally, the educator for Y1 taught them two classes during the term; while the educator for Y2 had not taught any other courses for the group.

4.3.3. Y1 results

Using Foot's (2004) age structured groupings, the five ETEP participants from Y1 were all from the Boom Echo generation. Females accounted for 80% and males accounted for 20% of the participants. The native language for all the participants was English. Single participants made up 60% of the participants, while the other 40% were living common law. Participants had only lived in Western Canada (specifically BC and Alberta) with 20% of the participants living the longest in the same place as where they had been born. Forty percent of the participants reported Kelowna as the place where they had lived the longest. Every participant named at least one course with a cultural or community theme. All of the courses had an Arts rather than Science perspective with a large variance of Arts courses considered by the participants to include culture and community as a theme. Five of the nine major categories listed in the National Occupational Classification were represented by the participants' work experience. Participants reported 80% had worked for longer than six months, either part-time or full time: first, business, finance and administration occupations include banking and clerical supervision; second, sales and service occupations include tourism and retail positions. The remaining four classifications had 40% or less of the

participants reporting work experience in those classifications. The majority of Y1 participants reported the computer experiences that they learned to help with their program of study included word processing (60%) and presentation software (80%). The Y1 group had the same educator for two courses during their fall term. The second on-campus course with this educator was English as Secondary Language/French as Secondary Language (ESL/FSL) course.

4.3.4. Y2 results

Three of Foot's (2004) age structured groupings were represented by Y2: Boomers (6.3%), Busters (31.3%) and Boom Echo (62.5%). As with Y1, females accounted for the majority of the participants. The marital status of this group was more widely distributed, which was expected given the generational cohorts, with the single participants making up the majority (50%) with 25% married, 12.5% living common law and 6.3% engaged. There were 6.3% of the participants who did not answer the question on marital status. Most of the participants were born in Canada with 6.3% born outside of Canada with a native language other than English. Most participants born in Canada were from Western Canada. The only other province mentioned was Ontario (6.3%). All of the participants have resided the longest time in Western Canada. Only 25% of the Y2 resided the longest in the same community as the university. Every participant named at least one course with a cultural or community theme. All of the courses had an Arts rather than Science perspective with a large variance of Arts courses considered by the participants to include culture and community as a theme. Six of the nine National Occupational Classifications were represented by the participants' work experience. The largest representation was in the sales and service occupations (75%) including tourism and retail sales. The remaining categories had 25% or

less of participants reporting work experience in those occupational classifications. The majority of participants reported word processing (62.5%) and presentation software (75%) as the computer experience used most often. All participants reported not having other courses with the educator of the course in art and the elementary classroom.

Table 4.6 compared Y1s and Y2s results from the background questionnaire and new data or significant changes from the IDI demographic results.

Table 4.6: Background questionnaire comparison

Group	Gender	Marital Status	Generation	Born	Cultural/Community Experience	Majority of Work Classification	Computer Experience Learned for ETEP	Educator Familiarity
Y1 n = 5	Male (20%)	Single (60%)	Boom Echo (100%)	Western Canada (100%)	Lived only in Canada (100%)	Business, Finance, Administration (80%) Sales and Service (80%)	Word Processing (60%)	Yes: same educator in two courses during the term
	Female (80%)	Common Law (40%)					Presentation software (80%)	
Y2 n = 16	Male (18.7%)	Single (50%)	Boom (6.3%)	Outside Canada (6.3%)	Lived only in Canada (75%)	Sales and Service (75%)	Word Processing (62.5%)	No
		Married (25%)					Presentation software (75%)	
	Female (81.3%)	Bust (31.3%)	ON (62.5%)	Lived outside Canada (25%)				
		Common Law (12.5%)						
		Engaged (6.3%)	Boom Echo (62.5%)	Western Canada (87.4%)				

4.3.5. Discussion

The purpose of the background questionnaire was to determine any diversity in the two groups that might affect learning and collaboration. The majority of the participants were female. One difference from the IDI demographic information was Y1 was 100% from the Boom Echo; while all three generations were represented in the Y2. Foot (2004) described most of the population of Boom Echo's would reside in Western Canada or Ontario.

Although not enough of a population to support Foot's (2004) description of Boom Echo, it was interesting all of the Boom Echo participants were born in either Ontario or Western Canada. This generational difference was reflected in the marital status of the two groups. Y1 was predominately single while Y2 had married adult learners, some with children. Generational differences and marital status are two factors that sometimes limit the amount of time outside of class that participants would spend together. Out of class time would be required for group projects and meetings with educators. A participant, berrya describes an example of how complicated a schedule can become:

...planning has never been an issue [for me]... well, I mean, I look at my plans for the year. I sit down before September and say 'okay, how many hours do I want for work, [my community responsibilities], what kind of jobs am I going to do, this is my school schedule ... the good thing is I am particularly structured. When I showed it to [my husband], he said 'where's the time for you?' ...but when the program [changes], the notice [for me] was terrible. Finding out about [opportunities] the day before, that's not helpful to me. I can't do anything at that point... [with everything], I have a two week notice rule. If I don't know about it two weeks in advance, then I can't accommodate it...

For berrya, once a group has committed to a project, there are few opportunities for making any changes. If one was not aware of the number of outside obligations and family commitments included in berrya's schedule, an assumption could be made that berrya is not a very flexible individual. This leaves little time for collaborative reflection with other group members outside of class. This reflective process had been described earlier as an

opportunity to understand complex situations, such as parts of a lesson plan or how to construct lesson plans for in-school practicum experiences. Another participant unable to take the time to collaboratively reflect with other classmates or educators, Giraffe, describes the time in the program as:

...exhausting. My overall feeling is we touched on so many subjects and some of them were useful and applied. Others were more theoretical. And now I am in the classroom, I keep asking why didn't they teach us this? Why didn't they teach us that? It's that translation from book learning to be applied. Such a huge transition! I think a perfect example would be when you take [any] course for teaching in elementary. It was almost too abstract or again we need to be more theoretical...right now [my sponsor teacher and I] are working through lesson plans...I thought a hook was to get [K-6 students'] attention... but it is not [for my sponsor teacher], it is how to get them thinking, thinking... how did I miss that part? And then the teaching them, now that you have them thinking, what are you teaching? Then show them and practice to solidify ...so those are the critical pieces and then start thinking about your intro, thinking about for this or that...or else I am defaulting to something to keep them busy...

Another participant, Katrina, felt some assignments were more useful than others to make connections in the teaching-learning community. These assignments built resource packages for future teaching experiences. However, Katrina described feeling disconnected from the university community as a whole and yet felt a connection with the classmates:

...I have only been [here] five years and I still feel a little disconnected from this community. I don't know if that is because I have been so focused on just school and just work that I haven't been really able to get out there. But I still feel a bit disjointed from this particular city and community. I grew up [in a smaller community] and I had a couple of years in a [larger city] and I felt those were better fits for me for what I am looking in community. However, I do have a good group of friends here and then, so as far as the university goes, I don't feel as part of the university as a whole. I am just here to do what I am here to do, but maybe that's because I am an older student as well. I don't feel the need to go to or participate in a lot of the things that happen up here. If I was a younger student then I probably would. As far as my program goes, within our section, we have a really great group, we are like family. We respect each other and are open and respect and share, really personal information...there are some that I will keep connected with, long term...

This shows that when busy adult learners enter a professionally designated program, there may be few totally unplanned opportunities to "learn a practice" (Wenger, 1998).

These three examples show how compartmentalized some of the learning and collaborations become and how limited the amount of time participants spend socializing with a cohort. Given only one term to create a relationship with the educator, many of the participants preferred class time be spent understanding the requirements of the educator. Frankie's earlier comments about lecture time with the educator and then learning online with participants seems to address this challenge of understanding how to learn a practice.

However, as Owen's comments demonstrate, some learners would rather have new ideas and theories brought to class with the educator facilitating the discussions.

Work experiences give employees the opportunity to learn a practice and then transfer skills to other opportunities. Transferable skills in employment opportunities are considered valuable when changing careers (Welton, 2005). The NOC identifies elementary teachers with its professional occupations in social sciences, education, government services, and religion. Y1 had no reports of work experience in the classification while only 18.8% of Y2 reported work experience that was coded into this classification. With the majority reporting work experience in sales and services, the transferable skills learned would accommodate both interpersonal skills and how to work with groups of adult learners. However, situations described earlier by participants berrya, Giraffe or Katrina require a new set of skills, such as shifting from ordinary thinking to metacognition. In these cases, the participants may turn to their educators to understand the course requirements and expect a curriculum design that includes opportunities to practice complexity thinking.

The final significant data collected in the background questionnaire was regarding the question of what computer experience the participants learned through ETEP. The two categories reported most often were word processing and presentation software. Austin's description of course work explained the reason why word processing and presentation software were important during on-campus courses: "[There were] lots of lesson plans in front of the class and presentations in front of the class ... so the presentations were like you were trying to teach a class rather than some of the other assignments..." A participant, Icewards, described having little time to determine new ways to present lesson plans and presentations. Before learning to chunk assignments into parts, Icewards said, "I would binge

on one project. If I had time, I would start another project for another class, complete that, start another without much time to refine or look for better perspectives and ways to do it.”

A typical response to the online activities was Ashley’s explanation of being more of a hands-on learner who would rather spend more time in the in-school practicum experiences instead of “most classes where [the group] did [a presentation with software] and call it a day.” Throughout the interviews, participants spoke of other software they used in a more informal way, including social networking software like Facebook, to plan get together with other classmates. The C/LMS was more of a data repository where participants sent emails, collected downloaded articles and participated in assigned classroom activities like journals and discussion forums. All participants thought online learning increased their learning significantly; however, unless technology was included in their in-school practicum experiences, few participants saw any necessity of doing projects online when face-to-face was available almost everyday in on-campus courses.

4.4. Classroom Community Scale (CCS)

4.4.1. Specialized terminology

Rovai’s (2002a) CCS measures classroom learning and connectedness with a combined score indicating a classroom community score. The higher the score reveals a stronger sense of classroom community (Rovai, 2002a). The following definitions are explained in Rovai’s (2002a) article.

Classroom community:

a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together most essential elements of

community are spirit, trust, mutual interdependence among members, interactivity, shared values and beliefs, and common expectations (pp. 198-199)

Classroom learning:

Members within a classroom community of learning must have strong feelings of community, that is, they must have a motivated and responsible sense of belonging and believe that active participation in the community will satisfy their [learning] needs (p. 199).

Connectedness:

Members within a classroom community of learning demonstrate the characteristics of sense of community called connectedness, regardless of setting, include feelings of cohesion, spirit, trust, and interdependence among members (p. 201).

4.4.2. General observations about CCS scores

Both groups' scores indicate a sense of classroom community with very little difference (1.2 points) between the groups. Y1's mean for connectedness is 29.2, classroom learning is 32.4 and classroom community is 61.6. Y2's mean for connectedness is 28.6, classroom learning is 30.8 and classroom community is 59.4. For each group, the mean scores are categorized by gender and each of the generational cohorts. These scores are represented in Table 4.7 for Y1 and Table 4.8 for Y2.

Table 4.7: Y1 Classroom Community Survey

Group n = 5	Connectedness	Classroom Learning	Classroom Community
Y1 Mean	29.2	32.4	61.6
Male (20%)	29.0	32.0	61.0
Female (80%)	29.3	32.5	61.8
Boom Echo (100%)	29.2	32.4	61.6

Table 4.8: Y2 Classroom Community Survey

Group n = 16	Connectedness	Classroom Learning	Classroom Community
Y2 Mean	28.6	30.8	59.4
Male (18.7%)	30.3	32.3	62.6
Female (81.3%)	28.2	30.5	58.7
Boom (6.3%)	14.0	49.0	63.0
Bust (31.3%)	31.6	32.4	64.0
Boom Echo (62.5%)	28.6	29.6	58.2

4.4.3. Discussion

There is not enough of a population to make sweeping generalizations; however, the results indicate classroom community is self-reported by every participant. There are many references in the interviews describing the cohorts like family. Amber described the on-campus courses as "...comfortable as opposed to other university classes. There were only thirty kids in the class so I got to know, or I mean fellow students, that I got to know on a regular basis. Because we got to go the class every day together, it was almost like being

back in elementary school. That's how it felt..." Another participant, Daisy, said, "We definitely had tighter communities within each section rather than the whole ETEP...and I wish my whole university had been more like this..." However, for some, there was a point where the idea of community and ETEP became a barrier, as Phyllis explained:

...more like high school. You are with them all the time and then when someone does something, everyone hears about it...instead of like third or fourth year in university, everyone is just there for the class. They don't care who you have been with or anything like that. It is just to get your work done...

Most participants saw the need for assignments to include both community and individual assignments. As Ashley said when asked about collaborative work, "...even if there was a group presentation, have individual papers. Have something like that makes it individual ... something that makes you individual from the group ... because we do have to be separated from one another [at some point]..."

When asked about in-school practicum experiences during the interview, many of the participants felt more isolated and missed the community in the on-campus courses. Daisy expressed this feeling and wished the in-school practicum experiences were:

...not standardized, I am not a fan of standardization; however, there has to be more communication within the practicum, what I am thinking of at this moment is faculty advising. A lot of them are at different levels and some mark harder, some are more hands-on than others, some have a laid back approach but it changes what we learn and how much we learn and what we

take away from our practicums ...and I think if there were more of a structure and it would make things more smooth [like the classroom experience]...

The Y2's Boomers had the most surprising results with a very low indication of connectedness in the classroom. Again, there was not a large enough population (only 6.3% of the group) to make any generalizations; however, outside obligations (as discussed in the background questionnaire section) may have been a distraction to connectedness in the classroom.

As to the entire program, Matt Calvin offered the following insights:

...[compared to my other degree, this program] is very demanding, very collaborative, very, yeah, there was this consistent community building within the students and the instructors were quite a variety but very good, very unique, very helpful, very aware of students' needs and very knowledgeable.

And throughout the two years, I learned so much, I worked so much, but I was prepared for what we were getting into and it was, umm, I am very thankful for it...

Matt Calvin's quotation, like other responses by participants, demonstrate Senge's (1990) description that "[s]haring knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating [personal] learning processes." The group of participants' quotations in this section demonstrate the adult learner's desire to find their personal Goldilocks Zone in the program — just at the place where their learning and life can flourish. While Daisy wanted more communication, Ashley preferred less collaboration. Amber compared the experience to elementary school and Phyllis compared it to high school. The common themes for their teaching-learning world

became a desire to be challenged, an experience of collaboration, a variety of learning activities and a feeling that they worked and were successful in their learning.

4.5. Semi-structured interviews and naturalistic observations

In this chapter, the quotations from interviews with participants echoed the quantitative data collected; however, the individual descriptions of learning show the importance of developing some relationship with other adult learners. Although the CCS results showed they learn and connect within the classroom, not every participant felt the necessity to share their challenges with classmates. From my observations, these adult learners chose to remain silent when external distractions like sick children or not understanding new technology affected social interactions and contributed to feelings of tension and stress between participants. The interviews were a descriptive mixture of personal achievements and challenges with the program. The semi-structured interviews have provided a glimpse into the diverse experiences of the adult learners taking ETEP. Their lives are multi-faceted combining school with work, outside relationships, community interests, and family obligations. These semi-structured interviews gave me a formal opportunity to collaborate with the participants as they explained and we explored the program.


4.6. Post-practicum IDI

As previously discussed, not all participants completed both IDIs. Given the small population, one final report combined all the participants' results. With the pre-practicum results of Y1 and Y2 being similar, the combined results indicate no significant changes to either group's intercultural sensitivity or competence between the pre- and post-practicum. This result was not surprising given less than eight months elapsed between the beginning and the end of the study without any reports of significant formal or informal training. The


pre- and post-practicum IDI was placed in the study with the expectation of little or no change. However, if some significant cultural incident had happened during the in-school practicum experiences, there would be a benchmark to provide the researcher with a prompt to begin discussions during the semi-structured interviews about the cause of any significant change (Hammer, 2007). Table 4.9 shows the results of the combined post-practicum IDI results.

Table 4.9: Combined post-practicum Intercultural Development Inventory (IDI) results

Perceived Orientation: Acceptance, 121.72

Rating						
Orientation	Denial	Polarization Defence/Reversal	Minimization		Acceptance	Adaption
Scale	55	70	85 100 115		130	145

Developmental Orientation: Minimization: 97.31

Rating						
Orientation	Denial	Polarization Defence/Reversal	Minimization		Acceptance	Adaption
Scale	55	70	85 100 115		130	145

Leading Orientation: $123.08 - 98.68 = 24.41$ (substantially overestimates)

4.7. Summary

This chapter began with a quotation from Senge (1998) about how “[s]haring knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating [personal] learning processes.” This data collection tried to encompass the complexity required when developing new capacities and creating learning processes at a curricular level. The IDI showed how developmental and perceived intercultural orientations caused groups to substantially overestimate their intercultural sensitivity and competence (Hammer, 2009). The background questionnaires gave an

opportunity to recognize the diverse individuals and groups. The comparison of the Y1 and Y2 groups also showed how adult learners and their cohorts changed from year to year with a multitude of outside obligations and varied experiences in school, work and computers/technology. The CCS results indicated a high possibility of these participants learning in class, feeling connected and developing a classroom community that supported their learning. Finally, the semi-structured interviews provided the complexity with participants' examples addressing all these factors. However, each participant developed the capacities and learning processes to meet not only individual but group learning needs and showed how similarly and differently thoughts and actions were developed in a group of adult learner's minds.

5. Chapter Five: Discussions and implications

Burke's "Unending Conversation" Metaphor (aka Burkean parlor):

Imagine that you enter a parlor. You come late. When you arrive, others have long preceded you, and they are engaged in a heated discussion, a discussion too heated for them to pause and tell you exactly what it is about. In fact, the discussion had already begun long before any of them got there, so that no one present is qualified to retrace for you all the steps that had gone before. You listen for a while, until you decide that you have caught the tenor of the argument; then you put in your oar. Someone answers; you answer him; another comes to your defense; another aligns himself against you, to either the embarrassment or gratification of your opponent, depending upon the quality of your ally's assistance. However, the discussion is interminable. The hour grows late, you must depart. And you do depart, with the discussion still vigorously in progress. ~ Kenneth Burke, pp. 110-111.

5.1. Introduction

During this research, I found many Burkean parlours where dynamic interactions took place. As I started my theoretical research, I realized many discussions in pedagogy, cloud intelligence and globalization began long before I became aware of their existence, let alone their implications to my research. During my course work, there were those who agreed and those who challenged the ideas I presented. While I designed and analyzed my data collection, I was concerned about whether I was missing something of greater importance. However, “the hour grows late, you must depart” and the final chapter of this thesis ends “with the discussion[s] still vigorously in progress” (Burke, 1941, pp. 110-111).

The first four chapters were analogous to preparing and then visiting two educational Burkean parlours. The preparation for the first parlour was conveyed in the research synopsis and explanations in the first chapter. The second chapter entered the first Burkean parlour with a structural description of Aoki's (2000) “curriculum-as-plan” with theoretical structures, models and researchers' findings. The discussion moved from 20th century to 21st century curriculum design. Traditional teaching-learning environments standardized learning

collections to be distributed from educators to adult learners and then returned as prescribed assignments from adult learners to educators. In the 21st century, teaching-learning worlds diverged into cohort-defined knowledge domains representing a diverse teaching-learning community where additional activities distract by both educators and adult learners. For example, educators continue to research and connect with other communities while adult learners address outside obligations and develop their own professional practices. During this transformative discussion, Pinar's (2009) "key curricular question — what knowledge is of most value?" was answered with carefully crafted curriculum designed for adult learners' self-concepts built from previous successful teaching-learning environments. Before leaving the first parlour, the discussions described the resulting chaos and complexity that began a new description of a digital habitat designed to "learn a practice" (Wenger, 1998) and added value to a blended teaching-learning world with on-campus courses and in-service practicum experiences.

To prepare for and enter the second parlour, the third chapter provided a strategy to mix quantitative and qualitative methods during the data collection. The data collection was analogous to entering the second Burkean parlour of the study's participants. The discussions of the data collection in the fourth chapter provided the beginnings of the textural descriptions. First, the demographics and the ETEP participants' experiences, both past and present, were discussed. Next, the participants answered the questions posed throughout the research and demonstrated Aoki's (2000) "curriculum-as-live(d)." The ETEP participants' responses described differentiated learning outcomes supporting the shift from OLCs to communities of practice. The two ETEP groups discussed how experiential learning and collaboration affected their environments.

Upon leaving the second parlour, the fourth chapter analyzed and organized the collected data to prepare for this final chapter that answers the questions this research has posed. First, Pinar's (2009) "key curricular question — what knowledge is of most value?" is indirectly answered by the participants' textural description. The groups' themes are presented and supported by individuals' quotations. Next, new perspectives and their implications to curriculum design emerge from answering the main and supplementary questions asked at the beginning of the research leading the research focus to curriculum design. Following that, the research findings suggest a new perspective to the research design for future use. The next section discusses an approach to supplement the current ETEP curriculum design to "learn a practice" (Wenger, 1998) with CSL projects. Finally, a reflection of the journey and a summary ends this study's discussions and begins the questions for future research which offers other Burkean parlours to prepare for and enter.

5.2. Textural description of Pinar's key question

In this study, the textural descriptions are collective themes of the ETEP groups supported by individual responses. Participants described personal, rather than group, preferences when answering Pinar's (2009) worldly question. Not one participant discussed any specific course category, knowledge dimension or learning environment as more important than another. For example, Icewards, one of the participants, described learning as a carousel, "where we move on and then come back to the same thing... in education, you need to revisit every time". Daisy considered who or what was involved in the learning most important because "... there are little people depending on you, which motivates you; whereas, school and books, you know you have a deadline and you know you can meet the deadline..." When Matt Calvin described the learning environments and stated, "until you

get [to the learning environment], you are truly not prepared.” Amber felt the whole learning world was “...rushed, I don’t know if it is too many of something, we were given a whole bunch of instructions and then ten to twenty minutes to [talk about] what to do; where really I am a hands on learner.” Others, like Katrina, were surprised to find, “...that [assignment] is so not me. Way out of my element. Just not me. I would be making a model and that’s more me...” Meanwhile, some, like Giraffe, pondered, “ how are we going to really understand whether or not what we are doing is effective...what if we had to teach our peers a very specific lesson and get them to critique us...” Conversely, every participant alluded to entering their own Burkean parlours where discussions about learning a practice and acquiring additional knowledge, both explicit and tacit, were never ending. Although never voiced as a life-long learning practice, the participants described the importance of life-long learning and their responsibility to direct their personal journeys.

5.3. New perspectives to the curriculum design

Most ETEP participants enjoyed opportunities for learning activities more than lectures. At one point in the interview, Frankie discussed enjoying the lecture of the educator when new knowledge was being given; however, further along in the interview, there were other times when finding new knowledge on the discussion forums was just as valuable. Another participant, Fay, explained “I think I am a mix [of learning styles]. Traditionally, or in the past, I thought I was an auditory learner, but it gets boring just listening after eight years [of university].” Both groups enjoyed the experiential learning component of their courses; however, Y2 felt the CSL project was, as Austin said, “...more challeng[ing], it was something new, new and exciting for me to try out.” However, another participant, Jessica,

pointed out that having the CSL project very close to the end of a term made it difficult for everyone in the cohort to participate:

...I think, rather than bonded us further,[it] kinda separated us, maybe half the class, maybe not even half our class did [the CSL project]... there were only a couple of us that went to [the homeless shelter] on the same day and there wasn't really too much discussion in class, because it was right at the end of the term... so I think maybe the community service learning project should happen at the beginning of the term and then discussion and the reflection can happen in class and that would be a more effective if social unity between future educators is what the objective is ...

berrya suggested offering a variety of CSL projects to ETEP adult learners. Although berrya felt community involvement was important for ETEP, a choice was made not to participate in this particular CSL project because of the religious affiliation of the local shelter. During each interview, it seemed that little commonality existed between individual responses and collective curriculum design. However, after analysis as a collective of narratives, there are three themes I found that participants felt should indirectly govern curriculum design and guide which knowledge is of most worth to this teaching-learning world.

First, as demonstrated with earlier participants' quotations, the favourite learning activities were those that provided choices. When a universal activity was distributed by an educator, such as small groups on a discussion forum, there was a broad continuum of responses from 'the activity was extremely valuable for individual learning' to 'the activity achieved nothing to promote learning.' With the CSL project, volunteering was considered important and some participants like Jessica, said, "I definitely like community service

learning projects, whether they are at the beginning or the end [of a term] but I think even doing two... If you had one at the beginning because others would be excited about it ... [and] I like volunteering because when people are forced they don't like it but I think people talking about it, more people would be interested in it..." Jessica's suggestion confirmed choices were important. Others thought choice was also important when group presentations and individual lesson plans were part of the curriculum. Some participants preferred a template be given to be followed throughout the courses and continued into the in-school practicum experiences. Others were interested in developing their own template or preferred using one provided by the sponsor teachers or faculty advisors that suited their personal teaching or learning style. In conclusion, the participants all were interested in choice throughout their learning experiences; however, no universal way to present these choices to the cohorts was found in the interview analysis.

Second, the participants stated that communication, regardless of who was providing the information, be centralized and consistent because of the number of people involved with the program. Currently, participants receive changes to programs or important dates through emails sent by a number of sources. As well, individual participants find information that they communicate through social software, such as Facebook. Sofi found some information to be contradictory, posted in too many places and suggested that:

...no technology is fabulous. I do sometimes feel that [today's communication channels are] almost a bit more, kind of invasive. Before [cell phones and Internet communication], people wouldn't contact you unless it was really important. But now, sometimes, they will contact you with the silliest things... so there is good and bad in it all...moderation in everything...

Sofi voiced the concerns of many participants regarding the changes in information given in courses and then emails sent throughout the course. Icewards added the technology between participants could be appropriately chosen to fit the situation and the sender ensuring the message was understood. Icewards described one particular situation where, “rather than text messaging back and forth for five hours, pick up the phone if it is important.”

Third, curriculum design should never assume that every ETEP adult learner has the knowledge necessary to complete the task. Also, if the participants have the knowledge, the learning activity should explain what the purpose is of such an activity, why the activity is important and how this activity moves the adult learner’s program forward. One example is critical reflection. Every ETEP participant spoke of informal reflection, or ordinary thinking, such as reflecting on the bus ride home individually or with a group. However, very few had formal praxes, reflecting and then creating action plans to change the structure of their learning or newly forming teaching practice. Lloyd felt that learning was being lost when someone dictated the kind of medium to use with reflection without explaining why it was important. Lloyd explained, “When I reflect, I am very visual, I am a very visual learner, so when I reflect I remember things that are visual...No [let me explain it differently]... because I am thinking of real life and I don’t think we actually file things by order. I think we file things by emotions and importance, you know...” Most of the critical reflection Lloyd completed in the program was written assignments, in which case, “I only wrote a little bit, only a little bit...” In some cases, Lloyd felt using a visual image as a metaphor for the learning that took place would be more suitable. Other reflective practices, such as an educator leading a reflective activity through selected prompts, could hone Lloyd’s skills to write a critical reflection. Subsequently, with curriculum design, the collective wanted

choices, communication consistently conveyed in channels that made the most sense, and explanations of how, why and what actionable knowledge needed to be learned.

5.4. Indications of new curriculum perspectives

These results demonstrate how the study has become an example of Aoki's (2000) "two understandings of curriculum: curriculum-as-plan and curriculum-as live(d)." During the planning of the research design, two online learning activities were formally identified for each ETEP group: a small group discussion forum assigned by an educator in the ETEP program and a journal entry for a CSL program. The initial series of questions were planned to focus on the online learning activities of a blended learning curriculum design:

Main Question:

Once an online learning activity is identified, what specific actions/activities provide the greatest influence on connecting what learners, educators, and others do?

Supplemental Questions:

- Who leads these actions: learners, teachers, or others?
- How could these actions be integrated into similar communities?
- What resistances stand in the way of these actions?
- What can be done about these resistances?

However, during the interviews, participants spent very little time discussing the online learning activities and much more time discussing guided self-direction, community relations and transformations. For most participants the new curriculum design perspectives represent a classroom community valuing learning and connectedness while supporting Wenger's (1998) "learning a practice" and "design for learning." The following sections provide the participants' indications to new curriculum design perspectives.

5.4.1. Online learning activities

At the beginning of this study, I considered the two online learning activities, discussion forums and journals, as commonplace. Surprising to me, some ETEP participants had never been introduced to these kinds of activities in other university courses. The participants' most common online activities were collecting and consuming knowledge, including accessing documents, web researching for informal learning, and library searches for research activities. This information began to change my perspective as to why these participants did not make any online connections when so many were made in the classrooms. Not one participant considered online activities as saving time, although Anne explained as a learner, "I never do anything faster, because I do things so utterly thoroughly that I am not a fast worker, ... so what I would do is work on one project and get that out of way instead of getting overwhelmed... recognizing what kind of learner I am..." Anne went on to explain that online discussion forums and journals were too time consuming and impeded learning because it took so long to compose and edit the postings. Anne focused on the mechanics of posting and spent less time reading what other adult learners had said. In Anne's example, technology was not discussed as a way to connect with other sections or practitioners or developed any desire to increase 21st century technology skills for future K-12 classrooms (Tuparova & Tuparov, 2005).

Therefore, the main question — Once an online learning activity is identified, what specific actions/activities provide the greatest influence on connecting what learners, educators and others do? — was answered by the participants in two parts. First, the ETEP adult learners' answers changes the question from 'specific actions/activities' to a variety of learning activities and assessments determined by the adult learners wherever possible. The

second part of the answer supports the first part by providing a digital habitat with virtual stewards and mentors that resides outside the classroom and C/LMS. The digital habitat would offer community members a place to learn how to use technology-based activities efficiently and gives others more time to complete those tasks they consider most important. The digital habitat would be analogous to a writing or mathematics resource centre where participants would find the two other curriculum design perspectives, guided self-directed activities and community relations.

5.4.2. Guided self-direction

The two parts that answer the main question (a variety of learning activities and assessments in a digital habitat with stewards and mentors) provide the framework to answer the supplemental questions. The response to the first supplemental question — Who leads these actions? — would start with the adult learners defining their specific needs and guiding the learning activities and actions based on the number of other commitments. Then, the activities would be lead by stewards and mentors throughout the digital habitat. The priority of actions/activities would be determined in a community of practice with a knowledge domain, a community and a practice (Wenger et al., 2009). The second supplemental question — How could these actions be integrated into similar communities? — is answered with a community of practice. This community of practice develops the knowledge domain and shows where and how this practice, once learned, can be integrated into other learning activity strategies. The development and sharing of the knowledge domain introduces the community's folksonomy and develops complexity thinking. The final two questions — What resistances stand in the way of these actions? What can be done about these resistances? — are answered when this community of practice shows other ETEP adult

learners the added value to working collaboratively online, the resistance to learning new technologies will decrease because the cost of learning is reduced and replaced with an authentic investment in 21st century skills. Once the ETEP adult learners feel comfortable enough in the digital habitat, they give back to this, or another, community of practice by stewarding or mentoring whatever skills they feel they have to offer. For example, some may mentor online learning activities; others, who preferred face-to-face activities, may steward CSL projects and build community relations within the community of practice.

5.4.3. Community relations

Finally, CSL projects should reside and help ETEP adult learners create other community spaces within this community of practice. The CSL projects would run parallel to the teaching-learning world and provide adult learners opportunities to practice their lesson plans with K-6 students (Stoeker, 2005; Wenger, 1998). These CSL projects could be after-school programs, professional development workshops, or camps during K-6 school breaks. The projects would be integrated into on-campus courses or as Sofi described, “a chance to give back to the community, which I think we kind of lost that for a while.” The CSL projects would also provide the opportunity to develop individual praxis (reflection and action plans) and collaborative critical reflection. Therefore, while some ETEP adult learners are showing others how online activities can enhance learning, others are designing and developing community projects organized through a community of practice.

5.4.4. Transformations

A participant, Phyllis, said, “[when] I was able to picture how to be a teacher in my mind, I understood how to write a lesson plan. Whereas when I came in I had no idea how to write a lesson plan. So I think my time did change but only because I could put together in

my mind how to structure a lesson and how to teach kids...” Phyllis’ description of her transformation from adult learner to teaching professional was unique; however, every participant in the Y2 group spoke of similar situations that were specific to their experiences. For some, their journey seemed isolating because of the tension and stresses they felt. Others, like Phyllis, found a smaller community within the cohort and they supported each other’s transformations. Using Burke’s (1941) metaphor of unending conversation, the cohort in ETEP became a place with a space where adult learners entered, engaged for the time they had, then left knowing the conversation and people would welcome them on their return.

5.5. New perspectives on the research design

This research focused on two groups of ETEP adult learners. One consideration for future research would be to broaden the population of adult learners by including participants from the secondary teacher education program (STEP) and other professionally designated education programs such as nursing or social work. For this study, data collection was not completed during class time and all participants volunteered to be part of the study. The study started with 30 ETEP participants attending on-campus courses daily, nine in the first year and 21 in the second. Thirty ETEP participants completed the first data collection, pre-practicum IDI, and were represented in the results. The majority of the data collection was after the in-school practicum experiences. Y1 had started their summer break. Y2 had completed their program and were starting their career search. The nine ETEP participants not completing the study were unable to return to the campus. Some had taken jobs in other provinces; others were in situations not conducive to completing the study like travelling to other countries. Based on this experience of ETEP participants unable to complete the study, I would make two changes to subsequent research studies. First, I would extend the study to

at least twelve months, attempt to only collect data when the participants were available on campus, rather than involved in their in-school practicum experiences, and complete the study before the ETEP participants graduated from their programs. Another change I would investigate is the feasibility of having the survey-type data collections, like the background questionnaire and Rovai's (2002) CCS, placed online in a secure site.

5.5.1. IDI research

Given the opportunity, I would add two parts to the IDI research. First, given a longer time for the research, I would include some formal or informal training. This informal training might be partnered with other university services or not-for-profit community organizations or associations. Another opportunity would be developing community service learning programs or projects with international students and their families and ensuring the same choices of learning activities and assessment are available to everyone.

One occurrence during the study piqued my interest and I would like to consider it in another research project with the IDI. During the pre-practicum meetings with the IDI administrator and participants, the participants were very appreciative of the information and said they felt much more aware of intercultural differences. Unfortunately, for a number of reasons, the results were not significantly different between the pre- and post-practicum IDIs. From this study, one future inquiry I would like to consider comes from a combination of my findings about reflective practice and action plans. My interest in this future inquiry began after a pre-practicum IDI meeting during this study. Everyone thanked the ID administrator for the insights; however, no one mentioned any changes to their practice during the interviews. What if the IDI administrator had asked each participant to write down one action the participant would change at the end of the presentation? What if this action was shared by

the adult learner with the group, the IDI administrator or the researcher? Then when the participant was interviewed after the post-practicum IDI, one of the questions would be about how the action plan worked. I suspect there would be a greater change on the IDI results for that individual if such praxis (reflections and action plans) was followed over a period of time.

5.6. Reflection of the journey

At the beginning of this journey, my hypothesis was that any one of three actions that I witnessed in the technology lab by an adult learner caused tension or stress and impeded “learning a practice” (Wenger, 1998). The three actions were withdrawing from social participation, resisting new technologies or preserving external loci of focus to learning. Through this study, I have realized these actions can be regarded by ETEP adult learners as coping mechanisms to chaotic and complex interactions within their teaching-learning world. Before this research, I knew very little about their teaching-learning world as a whole. After this research, the participants described using these actions to release their tensions and stress caused by the curriculum design and its complexity. In their words, these actions were not cause for dropping out, rather coping mechanisms for staying in the program. With my new understanding, I believe, used in moderation, these actions can help adult learners in the short term or when used in moderation. However, it is important to ensure other actions, or mechanisms, be introduced to address these tensions and stress including praxis, digital stewardship and mentorship with integration to a community of practice. Although digital stewardship and mentorship is important in a community of practice, it is important to include face-to-face opportunities as well. As a participant, Anne, told me, “I wish we had had a little support group before starting the practicum, and even though I knew there was

some online community... it was the physical being together [that made the difference].” The implications of supporting these actions within a curriculum design answers the series of questions set out at the beginning of this journey as well.

Based on the structural and textural descriptions, my synopsis of a framework of curriculum design for a professionally designated program would include social presence/co-presence, a synergy of knowledge attainment and a deliberated communication. First, a social and co-presence throughout the ETEP teaching-learning world would address respect, the first R (of 3Rs) that adult learners expect when entering a learning experience. Once achieved, then learning and connectedness would be created in the teaching-learning world (Rovai, 2002a). Second, within the community of practice, a synergy of knowledge attainment would provide the second R, responsibility. This would be achieved through a community of inquiry where adult learners and educators would develop community service learning projects that would combine and connect learning and collaboration. Finally, a deliberated communication would answer the third R, relevance. The membership would be able to collaboratively and individually critically reflect through the experiential learning cycles of critical reflection including direct common experience, critical reflection, conceptualization, negotiation (Crichton & Childs, 2008). This type of framework would provide members the opportunity to invite others into the community of practice for informal or formal trainings in areas of interests or concerns, such as intercultural and intergenerational competencies. Other activities would be working in pods with pedagogy, technology and content to create learning objects (Koehler, Mishra & Yahya, 2007). In this way, ETEP would provide a ‘just’ learning society where citizenship becomes part of both the explicit and tacit knowledge dimensions (Welton, 2005).

Finally, this research changed my practice in three ways. The first change this research brought to my practice is the recognition that, used in moderation by adult learners, withdrawing from social interactions, resisting new technologies and allowing external loci of focus to direct the learning may enhance the adult learning experience rather than impeding the process. However, there are other actions that could be introduced with a community of practice supplementing the chaos and complexity that is a 21st century teaching-learning world. The second change is making sure I ask, rather than surmise, how, why or what each adult learner requires when being introduced to any technology or upgrade. Finally, I realize the need to temper my passion for technology-based activities with face-to-face activities and provide relevant choices from both sides of blended learning to adult learners. Being mindful of these three changes to my practice will respect adult learners' diversity and provide a collaborative solution with each side being responsible for learning.

5.7. Summary

This chapter has provided the final discussion for this study — the textural descriptions from the participants. The metaphor of Burkean parlours explained the process. Next, the textural description answers Pinar's (2009) "key curricular question — what knowledge is of most worth?" To these participants, the answer to Pinar's (2009) key curricular question was very specific to their own learning world. There was little consensus from the collective of participants. However, the collective provided a textural description of curriculum design with three themes including a variety of learning activities and assessments, consistent conveyance of communication through a sensible channel and explanations of how, why and what actionable knowledge is required to learn a practice.

To me, the findings demonstrate Aoki's (2000) "two understandings of curriculum: curriculum-as-plan and curriculum-as live(d)." During this study, there were few reports about technology (the plan) and many more discussions about individuals and their relationships (the live(d)). This became most evident to me when answering the main and supplemental questions first posed to focus the interview and the experiential learning. The collective was not experienced with online learning activities, used technology sparingly in learning and mostly collected or consumed data. They were interested in guided self-direction when it came to technology that Wenger et al. (2009) describe as a community of practice. The implications for future research design include more time and a number of additional data collections using the IDI. My reflection on the hypothesis included the fact it was partially incorrect. What I saw in the educational technology lab was not a resistance to learning. Instead, what I witnessed was coping mechanisms for learning. Finally, the research has changed my practice in three ways: to respect adult learners' self-concepts of teaching-learning environments, to ask rather than surmise what the adult learners require since they are responsible for their learning and to temper my passion for technology-based activities with face-to-face activities that provide relevant solutions for the adult learners.

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Appendix A: Behavioural Research Ethics Board Certificate of Approval

<https://rise.ubc.ca/rise/Doc/0/4RNJ0CM8KG34723OE53JR0CVE6/fromS...>



The University of British Columbia Okanagan
Research Services
Behavioural Research Ethics Board
3333 University Way
Kelowna, BC V1V 1V7

Phone: 250-807-8832
Fax: 250-807-8438

CERTIFICATE OF APPROVAL- MINIMAL RISK RENEWAL

PRINCIPAL INVESTIGATOR: Alwyn Spies	DEPARTMENT: UBC/UBCO Creative & Critical Studies/UBCO Critical Studies	UBC BREB NUMBER: HD9-01435				
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:						
<table border="1"><thead><tr><th>Institution</th><th>Site</th></tr></thead><tbody><tr><td>UBC</td><td>Okanagan</td></tr></tbody></table>			Institution	Site	UBC	Okanagan
Institution	Site					
UBC	Okanagan					
Other locations where the research will be conducted: The Intercultural Development Inventory is an online test – subjects will be using their own computers and internet connections or else a university open computer lab to complete. Students volunteering for the research will be accessing UBC-Okanagan's WebCT Vista. 1. Students with community-service learning projects will have two WebCT Vista sites to interact with their course peers: a. the WebCT Vista course site maintained by the professor for course assignments b. The UBC Okanagan Learning Exchange has a WebCT Vista site maintained by Phil Bond and Lori Field for discussion, journaling and critical reflection of the interaction with the community Deb Carter will be monitoring discussion forums on WebCT Vista for the Learning Exchange and the two Faculty of Education courses, as part of her job requirements. However, only the activities of the students who volunteered will be part of the naturalistic observations described in the research proposal.						
CO-INVESTIGATOR(S): Deborah Joy Carter						
SPONSORING AGENCIES: N/A						
PROJECT TITLE: Incite, then Delight: Investigating Negotiated Community Information Technology Experiences (INCITE), then Developing Experiential Learning Involving Guided Holistic Teamwork (DELIGHT)						
EXPIRY DATE OF THIS APPROVAL: July 7, 2011						
APPROVAL DATE: July 7, 2010						
The Annual Renewal for Study have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.						
Approval is issued on behalf of the Behavioural Research Ethics Board Okanagan						



The University of British Columbia Okanagan
Research Services
Behavioural Research Ethics Board
3333 University Way
Kelowna, BC V1V 1V7

Phone: 250-807-8832
Fax: 250-807-8438

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR: Alwyn Spies	INSTITUTION / DEPARTMENT: UBC/UBCO Creative & Critical Studies/UBCO Critical Studies	UBC BREB NUMBER: H09-01435				
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:						
<table border="1"><thead><tr><th>Institution</th><th>Site</th></tr></thead><tbody><tr><td>UBC</td><td>Okanagan</td></tr></tbody></table> <p>Other locations where the research will be conducted: The Intercultural Development Inventory is an online test -- subjects will be using their own computers and internet connections or else a university open computer lab to complete. Students volunteering for the research will be accessing UBC-Okanagan's WebCT Vista. 1. Students with community-service learning projects will have two WebCT Vista sites to interact with their course peers: a. the WebCT Vista course site maintained by the professor for course assignments b. The UBC Okanagan Learning Exchange has a WebCT Vista site maintained by Phil Bond and Lori Field for discussion, journaling and critical reflection of the interaction with the community Deb Carter will be monitoring discussion forums on WebCT Vista for the Learning Exchange and the two Faculty of Education courses, as part of her job requirements. However, only the activities of the students who volunteered will be part of the naturalistic observations described in the research proposal.</p>			Institution	Site	UBC	Okanagan
Institution	Site					
UBC	Okanagan					
CO-INVESTIGATOR(S): Deborah Joy Carter						
SPONSORING AGENCIES: N/A						
PROJECT TITLE: Incite, then Delight: Investigating Negotiated Community Information Technology Experiences (INCITE), then Developing Experiential Learning Involving Guided Holistic Teamwork (DELIGHT)						

CERTIFICATE EXPIRY DATE: August 18, 2010

DOCUMENTS INCLUDED IN THIS APPROVAL:	DATE APPROVED: August 18, 2009																															
<table border="1"><thead><tr><th>Document Name</th><th>Version</th><th>Date</th></tr></thead><tbody><tr><td colspan="3">Consent Forms:</td></tr><tr><td>SPIES_Carter_Carter_ConsentForm_20Jul09.doc</td><td>two</td><td>July 20, 2009</td></tr><tr><td>Spies_Carter_ConsentForm_12Jun09.doc</td><td>one</td><td>June 12, 2009</td></tr><tr><td>SPIES_Carter_ConsentForm_30Jul09.doc</td><td>Three</td><td>July 30, 2009</td></tr><tr><td>SPIES_Carter_ConsentForm_07Aug09.doc</td><td>four</td><td>August 7, 2009</td></tr><tr><td colspan="3">Questionnaire, Questionnaire Cover Letter, Tests:</td></tr><tr><td>Royal_CCS_Booklet.pdf</td><td>N/A</td><td>January 1, 2002</td></tr><tr><td>Spies_Carter_InterviewQuestions_02Jun09.doc</td><td>one</td><td>June 2, 2009</td></tr><tr><td>Spies_Carter_Questionnaire_02Jun09.doc</td><td>one</td><td>June 2, 2009</td></tr></tbody></table>	Document Name	Version	Date	Consent Forms:			SPIES_Carter_Carter_ConsentForm_20Jul09.doc	two	July 20, 2009	Spies_Carter_ConsentForm_12Jun09.doc	one	June 12, 2009	SPIES_Carter_ConsentForm_30Jul09.doc	Three	July 30, 2009	SPIES_Carter_ConsentForm_07Aug09.doc	four	August 7, 2009	Questionnaire, Questionnaire Cover Letter, Tests:			Royal_CCS_Booklet.pdf	N/A	January 1, 2002	Spies_Carter_InterviewQuestions_02Jun09.doc	one	June 2, 2009	Spies_Carter_Questionnaire_02Jun09.doc	one	June 2, 2009		
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Spies_Carter_Questionnaire_02Jun09.doc	one	June 2, 2009																														

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board Okanagan and signed electronically by:

Dr. Daniel Salhani, Chair

Appendix B: Consent Form

THE UNIVERSITY OF BRITISH COLUMBIA

INFORMED CONSENT FORM



(Title) Incite, then Delight: Investigating Negotiated Community Information Technology Experiences (INCITE), then Developing Experiential Learning Involving Guided Holistic Teamwork (DELIGHT)
(Principal Investigator)

(Graduate Student Assistant/Co-investigator)

Dr. Alwyn Spies
Assistant Professor, Critical Studies
University of British Columbia-
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3333 University Way
Kelowna, BC V1V 1V7
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Deb Carter
Graduate Student
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Arts 180 3333 University Way
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H: 250.862.4752 W: 250.807.8033
deb.carter@ubc.ca

(Purpose)

This project will form the core of Deb Carter's M.A. (Educational Technology) thesis on fostering community and improving online curriculum design when community-service learning is present in a course. It involves observing this course, which includes online interaction through WebCT Vista that is part of the course requirements.

RESEARCH QUESTIONS

Looking at actual courses at UBC Okanagan that includes online interaction with students, the following questions will be answered:

1. What specific actions provide the greatest influence on connecting what learners, teachers, and leaders do?
2. Who leads these actions: learners, teachers, or leaders?
3. How could these actions be integrated into other learning communities?
4. What resistances stand in the way of these actions?
5. What can leaders do about these resistances?

We are searching for volunteers to help answer these research questions by:

- Doing a 30-minute sound-recorded interview about their experiences in the class
- Taking a short online test measuring their intercultural skill level
- Doing a background questionnaire
- Having their online discussions be part of the data collection

The Intercultural Development Inventory (IDI), Classroom Community Survey, Background Questionnaire and the interview with Deb Carter would take approximately 2 hours of time, altogether, outside of class time.

Version 4 Date: August 7, 2009

Page 1 of 4

THE UNIVERSITY OF BRITISH COLUMBIA



Please be assured that your choice to participate or not participate in this project will not affect your grades for this course in any way. All data will be collected by Deb Carter, and your professor for the course will not be informed of who has volunteered, nor will see any of the IDI test results or see or hear any information you give Deb Carter.

(Study Procedures)

Interested volunteers may contact Deb Carter by e-mail (deb.carter@ubc.ca).

1. Once Deb Carter has received your e-mail, you will be asked to send a signed copy of Page 4 of this informed consent form to her via campus mail (an addressed envelope is attached to this form for your convenience).
2. Seven days after Deb Carter has confirmed receipt of your email, you will also be given the URL link to the test site, detailed instructions, and a password for access to take the first online test. The Intercultural Development Inventory (IDI) is a standardized test developed and distributed by the Intercultural Communication Institute in Portland Oregon (<http://www.intercultural.org/about.php>). It will be given, **online**, to student volunteers **twice** – once near the beginning of the course and again once the course is completed. Each test should take about 20 minutes to complete.
3. After the course has been completed, volunteers will be asked to:
 - a) Make an appointment for a 30-40 minute sound-recorded interview with Deb Carters to go over their thoughts, impressions and experiences with the online media projects.
 - b) Complete the second IDI online test.
 - c) Fill out a basic background questionnaire
 - d) Fill out a Classroom Community Survey. The Classroom Community Survey (CCS) is used to measure connectedness and learning (Rovai, 2002). This instrument consists of 20 self-report items followed by a five-point Likert scale of potential responses: strongly agree, agree, neutral, disagree, and strongly disagree. The survey should take about 15 minutes.

(Feedback)

Any students who are interested in learning what their own personal IDI score is and what it means, may attend a group discussion where Dr. Claude Desmarais, Faculty of Critical and Creative Studies (FCCS), UBC Okanagan will facilitate. He will be in charge of analyzing the tests and will discuss the results. There will be space on the questionnaire for you to indicate whether you would like to attend or not.

THE UNIVERSITY OF BRITISH COLUMBIA

As well, any volunteers who wish to receive a copy of the final report on this project may also indicate so on the questionnaire and a copy will be sent to them.



(Confidentiality)

Any information resulting from this research will be kept strictly confidential. All documents will be identified only by code number and kept in a locked filing cabinet.

Participants will not be identified by name in any reports of the completed study.

In the case of the Intercultural Development Inventory (IDI), all information is secured by IDI, LLC on a server located in their offices at 11312 Manklin Creek Rd., No. 3, Berlin, MD USA 21811. The survey company is a US company and as such is subject to US laws, in particular the Patriot Act that allows authorities access to the records of Internet Service Providers. The survey does not require any personal identifiers or any information that may be used to identify you. The survey server records incoming IP addresses of the computer that you use to access the survey but no connection is made between your data and your computer's IP address.

(Contact)

If you have any questions or desire further information with respect to this study, you may contact Deb Carter by phone at 250.807.8033 or by e-mail: deb.carter@ubc.ca

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail to RSIL@ors.ubc.ca.

(Consent)

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from any part of the procedures, or completely withdraw from this study at any time. I also understand that whether I choose to participate or not, or if I choose to withdraw from any or all of the study, my grades in will not be affected in any way.

I have received a copy of this consent form for my own records.

I consent to participate in this study.

Subject Signature

Date

THE UNIVERSITY OF BRITISH COLUMBIA



Consent

Please **ONLY** send this signed copy of Page 4 of this informed consent form to Oak Center via campus mail in the envelope provided.

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from any part of the procedures, or completely withdraw from this study at any time. I also understand that whether I choose to participate or not, or if I choose to withdraw from any or all of the study at any time, my grades will not be affected in any way.

I have received a copy of this consent form for my own records.

I consent to participate in this study.

.....
Subject Signature Date

Appendix C: Dr. A. Rovai Email Approval

Carter, Deb

From: Alfred Rovai [alfrov@regent.edu]
Sent: Wednesday, January 07, 2009 9:27 AM
To: Carter, Deb
Subject: RE: SCCI Licensing
Attachments: CCS Booklet.pdf; l&HE4.pdf

Hi Deb,

There are no costs associated with using the index. Attached are Adobe Acrobat files that cover the current version of the instrument. If you decide to use the instrument, just make sure you cite the attached article.

Best wishes,
Fred

Alfred P. Rovai, PhD
Professor of Education
Regent University
1000 Regent University Drive
Virginia Beach, VA 23464-9800
Office ADM-216
Phone 757.226.4861
http://www.regent.edu/acad/schedu/pdfs/vita_rovai.pdf

From: Carter, Deb [mailto:deb.carter@ubc.ca]
Sent: Wednesday, January 07, 2009 12:19 PM
To: Alfred Rovai
Subject: SCCI Licensing

Dear Sir:

My name is Deb Carter and I am a Masters Student at University of British Columbia Okanagan (UBC Okanagan), Kelowna, BC, Canada.

My research is regarding online learning communities and I would like to use your index in my research.

I was hoping you would be able to give me a breakdown of costs for using your index and/or another contact that I should be pursuing.

Thanking you in advance for any information you can provide me.

Take care,

Deb Carter
Ed Tech Centre Coordinator
UBC Okanagan
Kelowna, BC, Canada
P: 250.807.8033

Appendix D: Rovai Classroom Community Survey

CCS Test Booklet

**Classroom Community Scale
(CCS)**

Developed by
Alfred P. Rovai, PhD
alfrov@regent.edu

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SURVEY

DIRECTIONS: Below you will see a series of statements concerning a specific course or program you are presently taking or recently completed. Read each statement carefully and place an X in the parentheses to the right of the statement that comes closest to indicate how you feel about the course or program. You may use a pencil or pen. There are no correct or incorrect responses. If you neither agree nor disagree with a statement or are uncertain, place an X in the neutral (N) area. Do not spend too much time on any one statement, but give the response that seems to describe how you feel. *Please respond to all items*

Strongly Disagree (SD)
Disagree (D)
Neutral (N)
Agree (A)
Strongly Agree (SA)

1. I feel that students in this course care about each other.....(SA) (A) (N) (D) (SD)
2. I feel that I am encouraged to ask questions.....(SA) (A) (N) (D) (SD)
3. I feel connected to others in this course.....(SA) (A) (N) (D) (SD)
4. I feel that it is hard to get help when I have a question(SA) (A) (N) (D) (SD)
5. I do not feel a spirit of community.....(SA) (A) (N) (D) (SD)
6. I feel that I receive timely feedback.....(SA) (A) (N) (D) (SD)
7. I feel that this course is like a family(SA) (A) (N) (D) (SD)
8. I feel uneasy exposing gaps in my understanding(SA) (A) (N) (D) (SD)
9. I feel isolated in this course(SA) (A) (N) (D) (SD)
10. I feel reluctant to speak openly(SA) (A) (N) (D) (SD)
11. I trust others in this course(SA) (A) (N) (D) (SD)
12. I feel that this course results in only modest learning.....(SA) (A) (N) (D) (SD)
13. I feel that I can rely on others in this course(SA) (A) (N) (D) (SD)
14. I feel that other students do not help me learn.....(SA) (A) (N) (D) (SD)
15. I feel that members of this course depend on me.....(SA) (A) (N) (D) (SD)
16. I feel that I am given ample opportunities to learn.....(SA) (A) (N) (D) (SD)
17. I feel uncertain about others in this course(SA) (A) (N) (D) (SD)
18. I feel that my educational needs are not being met.....(SA) (A) (N) (D) (SD)
19. I feel confident that others will support me(SA) (A) (N) (D) (SD)
20. I feel that this course does not promote a desire to learn.....(SA) (A) (N) (D) (SD)

Scoring Key

Overall CCS Raw Score

CCS raw scores vary from a maximum of 80 to a minimum of zero. Interpret higher CCS scores as a stronger sense of classroom community.

Score the test instrument items as follows:

For items: 1, 2, 3, 6, 7, 11, 13, 15, 16, 19

Weights: Strongly Agree = 4, Agree = 3, Neutral = 2, Disagree = 1, Strongly Disagree = 0

For items: 4, 5, 8, 9, 10, 12, 14, 17, 18, 20

Weights: Strongly Agree = 0, Agree = 1, Neutral = 2, Disagree = 3, Strongly Disagree = 4

Add the weights of all 20 items to obtain the overall CCS score.

CCS Subscale Raw Scores

CCS subscale raw scores vary from a maximum of 40 to a minimum of zero. Calculate CCS subscale scores as follows:

Connectedness Add the weights of odd items: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19

Learning Add the weights of even items: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Appendix E: Semi-structured Interview

Semi-structured interview sample questions

1. How would you describe your experience in this course as a whole?
 - 1.1. How would you describe your experience in the classroom as a whole?
 - 1.2. How would you describe your online experience as a whole?
 - 1.3. How would you describe your experience with the community as a whole?
2. Did cultural differences affect your experiences in any way?
 - 2.1. How / Why not?
 - 2.2. For example?
3. Did other people (in other groups) seem to be having the same experiences?
 - 3.1. Why?/Why not?
4. Which part of the community-service project did you like the most?
 - 4.1. Please briefly describe that part.
 - 4.2. Why did you enjoy this one the most?
5. Which part did you like the least?
 - 5.1. Please briefly describe that part.
 - 5.2. Why did you enjoy this one the least?
 - 5.3. In your opinion, what happened or didn't happen?
 - 5.4. What do you think caused this?
6. What would you have done differently if you could do this project again?
 - 6.1. Why?
 - 6.2. What happened that makes you feel this way?
 - 6.3. What do you think would happen if you did it again the way you suggest?
 - 6.4. Why?
7. Did you learn any tips/tricks/techniques for getting things done faster or better?
 - 7.1. How did you learn them?
8. Is there anything that could have been done to improve the project process?

Semi-structured interview sample questions

9. How do you feel about your ability to communicate with the community?
 - 9.1. How do you feel about your ability to communicate with people from other cultures?
10. How do you think you did in comparison to the others in the class?
 - 10.1. Why?
11. How do you see the university's role in working with the community?
12. What are you studying? Why?
13. Have you taken other courses where there was a discussion form or similar computer activity?
 - 13.1. Please describe that course.
 - 13.2. Do you see any similarities or differences in your experience with that course and your experience with this course?
 - 13.2.1. Please explain.
14. Have any of your other courses at university (or high school) helped you with community communication?
 - 14.1. Which ones?
 - 14.2. How?
15. If there were an opportunity to do this kind of collaborative project work again next year, what would you recommend we do?
16. Is there anything else that you would like to discuss that we have not discussed that you feel I should know about?

Appendix F: Background Questionnaire

THE UNIVERSITY OF BRITISH COLUMBIA

Basic Background Information Questionnaire



Principal Investigator

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Graduate Student Assistant/Co-Investigator

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You are being asked to complete this questionnaire in order to provide relevant information regarding your personal history. This information will aid in the analysis of your participation and interaction in this study. You have the right to decline to answer any of the questions, and you may withdraw from the study at any time.

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance, e-mail to RSIL@ors.ubc.ca.

Date: _____

Please choose a pseudonym for the final report: _____

Age: _____ Sex: _____ Self-defined gender: _____

Place of Birth: _____

Place that you have spent the majority of your life to date: _____

Have you resided outside of Canada? ☐ No ☐ Yes

If YES, where and for how long? _____

What is your native language? _____

Version Date: June 02, 2009

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THE UNIVERSITY OF BRITISH COLUMBIA

Do you speak any other language at a level where you can communicate with native speakers easily?



Marital status: single _____ married _____ living common-law _____
divorced _____ separated _____ widowed _____ other _____

Work experience – indicate full or part-time positions held for more than 6 months

School experience – Have you taken other courses with your current professor?

☐ No ☐ Yes

If YES, which courses? _____

School experience -- indicate any courses you have taken about community or culture

Computer experience – indicate the most recent computer skill(s) you have used for classes

If you would you like to meet with the Intercultural Development Inventory administrator to learn about your IDI test score and what it means, please write an e-mail address and/or a phone number where you can be reached.

If you would like to have any final paper or report that is written about this research project, please write an address or e-mail address where it can be sent.

Thank you for your cooperation with this research project.

Version Date: June 02, 2009

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Appendix G: Background Questionnaire Categorizations

Work Experience: full time or part-time for more than 6 months (reported by participants)

Source: National Occupation Classification (2006): Human Resources and Skills Development

Canada <http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/Welcome.aspx>

Work	Management Occupations	Business, Finance and Administration Occupations	Natural and Applied Science and Related Occupations	Health Occupations	Occupations in Social Sciences, Education , Government, Religion	Occupations in Art, Culture, Recreation, and Sports
Positions Reported on Questionnaire	Restaurant Managers Retail Sales Managers	Bank teller Document/Product Control Manager Event Planners Secretary	Technology Lab Assistants	Veterinarian Assistant	Instructional Assistant Teaching Assistant	Art Gallery Assistant Director Program Coordinator
	Sales and Service Occupations			Trades, Transport and Equipment Operators and Related Occupations	Occupations unique to Primary Industries	Occupations unique to Processing, Manufacturing and Utilities
Positions Reported on Questionnaire	Banquet server Bartender Barista (Starbucks) Bellman	Cashiers Grocery clerks Home support worker Housekeeper Nanny	Laundromat worker Retail/Customer service	Shoe Repair		Seamstress

School Experience: Courses (reported by participants) with culture or community themes

Source: UBC's Okanagan campus <http://web.ubc.ca/okanagan/directories/facultieschools.html>

Unit/ Department	Community, Culture & Global Studies – Unit 1	Biology & Physical Geography - Unit 2	Chemistry, Earth & Environmental Science – Unit 3	Psychology & Computer Science - Unit 4	Mathematics, Statistics & Physics - Unit 5	Economics, History, Philosophy, Political Science & Sociology - Unit 6	English
Courses Reported on Questionnaire	Anthropology Human Geography			Psychology		Cultural Studies History Pop Culture Sociology	English Literature
Unit/ Department	Faculty of Education	Community/Global Learning	College				
Courses Reported on Questionnaire	Art Social Studies ESL/FSL	Go Global Learning Exchange Up with People	Human support worker				

Computer Experience: Categorized by Function (reported by participants)

Computer skills that were required for ETEP

Function	Word Processing	Accounting, Spreadsheets	Creating Graphics and Presentation Software	Social Networking	Audio Podcasts	E-mail	Web browsing Web searching	Learning Objects
Description or Software Reported on Questionnaire	Typing Word docs Word processing		iMovie PowerPoint Prezi Web design Xtranormal	Ning	Audacity Garageband	Email	Web researching Library researching	SMARTBoard Webquests