Implementation and Impact of Experiential Learning in a Graduate Level Teacher Education Program: An Example From a Canadian University

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Abstract

Teacher inquiry, in which teachers study their own professional practice, is currently a popular form of experiential learning that is considered a powerful tool to bring about effective change in teaching and learning. Little empirical evidence, however, exists to explain precisely if and how this pedagogical methodology moves teachers toward transformation of practice. Using a grounded theory design, we examined twelve end of term graduate level learning portfolios and administered a survey to 336 in-service teachers enrolled in a two-year graduate diploma program in the Faculty of Education at Simon Fraser University, Canada. We found powerful evidence that our programs were highly impactful, with 94% of teachers reporting transformative learning within the second year of the program. Using portfolio data, we examined the process of the teacher transformations. Our findings revealed that teachers' abilities to interrogate their subjective-objective stance deepened their experiential learning. Using three case studies we exemplify how transformative pathways were formulated and conclude with a discussion of the implications of learning through experience, including the value of student-generated learning goals, continuous interfacing of theory and practice, seeing your "teaching" through the eyes of your students, colleagues or parents, and the power of living your research question in the context of your own classroom and school setting. We end the paper on a cautionary note pointing out the vulnerability of programs of this nature in an era of accountability, standardization, quality control, and risk management all of which eclipse approaches that focus on authentic practical problems and student generated solutions.

Keywords

experiential learning, teacher inquiry, in-service teacher education, transformation of practice

"An ounce of experience is better than a ton of theory simply because it is only in experience that any theory has vital and verifiable significance" (Dewey, 1916/2008, chapter 11, para 8).

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Introduction

Experiential learning involves a direct encounter between the learner and the world in which there is a transaction between the subjective experience and the objective conditions (Dewey, 1916/2008; Heron & Reason, 1997; Kolb, 2014). According to this perspective, learning is not derived from experience alone but rather the complex interactions between experience, perception, cognition, and behavior (Kolb, 2014). As Dewey (1916/2008) contended, "to 'learn from experience' is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things as a consequence" (chapter 11, para 1).

One of the biggest challenges for continuing professional development, such as in-service teacher education, is the cultivation of complex competencies that enable practitioners to be responsive to the demands of specific contexts (Queeney, 2000), particularly ones that are constantly changing. Within the field of education, a form of experiential learning that is growing in popularity is teacher inquiry, the disciplined study of one's own teaching practice (Cochran-Smith & Lytle, 1993; 1999; 2009). While teacher inquiry is well established as good teaching practice and considered a powerful tool to bring about effective change in teaching and learning (Cochran-Smith & Lytle, 2009; Himley & Carini, 2000), little empirical evidence exists to explain precisely if and how this pedagogical methodology moves teachers toward transformation of practice. As Slavit and Holmlund Nelson (2009) asserted, "we still know very little about the results of these kinds of initiatives on teaching, teaching perspective, and student learning" (p. 9).

Within the Faculty of Education at Simon Fraser University, the Field Programs unit specializes in graduate level, in-service teacher education programs based on a teacher inquiry methodology. Anecdotally our instructors and graduates often note the transformative, and profoundly impactful nature of our programs, however, to date we have not systematically studied the experiences of the teacher-learners in our programs. To promote and preserve programs we believe are change agents, particularly during an era of budgetary constraints and increased concerns regarding accountability, quality control, and risk management within institutions, it is important to demonstrate the value of experiential learning offered in our teacher education programs. To this end we endeavor to assess the nature and quality of the experiential learning within our programs and answer the question "What is the impact of self-examination of practice on teacher professional development?". Our research questions include:

1) How does experiential learning, inherent within teacher inquiry move our students (practicing teachers) towards transformation of practice?
2) What pathways enable profound learning to occur?
3) What is the impact of our programs?

Context

For over twenty years, the Faculty of Education at Simon Fraser University located within the greater Vancouver area in British Columbia, Canada, has provided unique opportunities for in-service teachers to engage in experiential learning embedded within their professional practice. Our programs include various thematic two-year Graduate Diplomas in Education (GDE) (e.g., Supporting Diverse Learners, Teaching and Learning with Technology, Exploring Arts Education, Learning in the Early Years), that can ladder into a third year of study culminating in a Master of Education in Educational Practice (M.Ed. EP). Our graduate

diploma programs are unique in that instructional teams include Faculty Associates (master teachers seconded from school districts), Mentors (practicing K-12 teachers familiar with teacher inquiry), as well as Faculty Members (university professors with expertise in the theme of the diploma program)[1]. We enroll approximately 300 to 700 educators annually. To enroll in our programs, applicants must have a British Columbia teaching certificate and be engaged in an educational practice, at least part time. Our students are primarily classroom teachers (K-12), but also may include administrators, resources teachers, district support teachers, and librarians. The number of cohorts offered by Field Programs, and the variety of programs provide unique opportunities to study the process and impact of experiential teacher education across diverse contexts.

Our Diploma and Masters programs are based on a practitioner inquiry methodology in which teachers conduct self-directed inquiries into their own professional practice (Cochran-Smith & Lytle, 1993; 1999; 2009). As part of our programs they engage in multiple *field studies*, action-oriented inquiry projects, in which they attempt to transform aspects of their practice in order to advance their understanding of teaching and learning, and enable change within their specific contexts. We contend that through self-directed inquiries within the context of professional practice, deeper understanding can develop than through more traditional transmission-oriented learning. As Hobson (2000) asserted, "if you want to try to understand something, try to change it" (p. 8).

Our pedagogy is experiential in two ways. First, our students develop their professional capacities by reflecting on their efforts to create change within their own classroom and consequences of such actions. The university classroom provides a dialogic space where teachers can unpack, analyze, and question their experiences in this regard. In this way, the cohort serves as a community of practice (Wenger, 1998; Lave & Wenger, 1991) in which colleagues provide critical feedback, supportive encouragement, and act as *sounding boards*. Our GDE programs are based on a mentorship model (Lipton & Wellman, 2001), in which instructors support teacher-learners in developing their own capacities to analyze their beliefs and assumptions, to identify tensions in their teaching, to engage in the critical and disciplined study of their practice, and to advance their professional knowledge. Second, we provide opportunities for experiential learning in our classrooms. We endeavor to model effective practice in our own pedagogies, such as differentiated instruction (Tomlinson, 2015), holistic learning experiences (Miller, 2007), and relational pedagogies (Margonis, 2011). We encourage teachers not only to consider how they might adapt and apply these pedagogies within their own practices, but also to reflect on their experiences as students in our classroom, and how these perspectives might inform their understanding of their own students' experiences in schools (Brookfield, 1995).

Our intention is to be as responsive as possible to the professional development needs of in-service teachers in the province. Our curriculum is often co-constructed with school districts, and addresses changes and trends within K-12 education within British Columbia, such as the shift to all day kindergarten in 2010. We aim to inform the educational practice of teacher learners through exposure to current scholarship, while adhering to a core pedagogical belief in teacher inquiry as a method of pursuing self-directed questions related to the content presented and their own pedagogical practice. To this end, a parallel structure of non-graded discipline-specific content and theory (2

or 3 credits) is taught in conjunction with a non-graded field study or teacher inquiry course (2 or 3 credits) each semester, over a 30-credit (6 semester) program. To enroll in the program, teachers must be working in the classroom (either full or part time or on-call) so that the content or focus of each graduate diploma can be infused with a reflexive pedagogical encounter through teacher inquiry.

Our program aims to develop the holistic capacities of the practitioner, that is, interrelated ways of knowing, doing, and being. During all two-year diploma programs, teacher-learners work towards developing program-specific capacities, which are used to guide self, peer, and instructor assessment. Common capacities across programs include the development of an inquiry disposition; the ability to engage in critical cycles of action and reflection; an orientation towards praxis; collaborative, responsive and inclusive practices within learning communities; the ability to critically analyze personal beliefs regarding teaching and learning; and leadership capacities. The diploma program is graded on a satisfactory/non-satisfactory basis to encourage teachers to experiment with new practices and take professional risks, as well as to empower teachers as agents of their own professional development and strengthen self-assessment of practice.

Although the diploma program is non-graded, the reflective practice of teacher-learners and their field study write-ups are evaluated at the end of each semester when they submit their portfolios. This portfolio is a self-directed collection of learning, and stands as a synthesis of the students' field study, discussions, readings and class activities. We place strong emphasis on critical reflection throughout our in-service professional development programs with the belief that this enables an active interrogation of self, theory, and classroom practice during cycles of inquiry (Brookfield, 2005; Cochran-Smith & Lytle, 2009; Himley & Carini, 2000, Dana & Yendol-Hoppey, 2014).

These cycles of critical reflection are important given the emphasis in British Columbia on the use of emergent and responsive approaches that individualize student learning and meet the needs of a diverse student population. With teachers in BC and elsewhere in Canada facing high ideals to design and implement individualized curriculum that is "suited to improve student engagement" and life preparation (see Ministry of Education 2016/17-2018/19 Service Plan), there is a pressing need to systematically reflect on classroom experiences and move teaching and learning forward in a way that takes the individual characteristics of the learner into account.

Simon Fraser University has recently undergone an accreditation process, and implemented changes to enhance accountability and quality of instruction, including requiring learning goals or outcomes for each course, and developing standardized course evaluations across the university. Further, the addition of risk management protocols in both schools and universities make it increasingly challenging to provide opportunities for authentic experiential learning outside of traditional classroom-based activities. These new institutional practices are at times at odds with our more holistic, experiential, emergent, and self-directed pedagogies and create complexities for us as instructors. Our instructional model, which includes faculty members, as well as practitioner is more expensive than other graduate programs, and as the federal and provincial funding to post-secondary institutions decreases and efficiencies are sought, our programs are increasingly under scrutiny. It is within this context that we feel it is important to systemically study the impact of the experiential

pedagogies within our graduate level teacher education programs.

Methodology

Our research design has been informed by grounded theory (Charmaz, 2005; Corbin & Strauss, 2008; Glass & Strauss, 1967; Strauss & Corbin, 1990; 1998). In this approach, data analysis has been ongoing, shaping data collection and focusing our understandings as the project progresses. The abductive nature of grounded theory has been critical in allowing us to determine patterns as they emerge from the data to form a working hypothesis with criteria for analyzing the data that is solely based on the student experience rather than constructed a priori. In this way we have allowed the data to speak to us.

Students in seven different cohorts in our Graduate Diploma in Education (GDE) were invited by Faculty Associates to participate in a self-study of our program area by submitting their end of term portfolios for analysis. The student's portfolio provides a synthesis of the teacher's field study, discussions, readings and class activities and often includes a variety of photos, graphics, and narrative forms of representation. Within this final assignment, teachers share their growth by developing several learning statements. These statements act to consolidate and highlight their key understandings for the semester.

For this paper we focused on portfolio submissions from two cohorts (Learning in the Early Years (LEY), and Supporting Diverse Learners (SDL). These cohorts were selected because they were diverse in terms of the discipline-specific content, but offered a consistent approach in teaching inquiry methods, and at the time of data collection both cohorts were in the middle third of the program (LEY was in the third semester and SDL was in the fourth semester). Portfolios of students who provided consent and were able to submit their portfolios electronically were included in the analysis. (Other students consented to have their portfolios included but their representations of learning were more performative in nature and could not be easily converted into an electronic format that would enable an ongoing analysis). In the end 12 out of a possible 49 portfolios from the two cohorts were included in the analysis.

Using in vivo coding methods we selected verbatim key significant words or phrases that were utilized or coined by the participants to capture the student voice (Saldaña, 2009). In this way, we grounded our codes and subsequent categories to the portfolio data. We honored the goal of grounded theory to make use of student voice and let the data speak to us. To this end we did not start with a priori criteria for review of the portfolios but rather looked at the portfolios for the meaning and messages conveyed around student learning by the students themselves. Through our own discussion and reflective analysis[2] we assigned categories to encompass our interpretation of the meaning of the in-vivo text, and then re-analyzed for content related to methods and elements of experiential learning and transformation of teaching practice. Through these collaborative discussions, and after triangulation with our written reflections we were able to generate an understanding of how experiential learning moved our students towards transformation of practice that was deepened through our experiences as instructors.

Evidence in the portfolio data indicated that our teacher inquiry methodology created powerful professional development opportunities for practicing teachers. We wondered, however, if this finding was consistent across our programs, and we constructed a survey to administer to our entire

student population as part of this cycle of generating and testing understandings.

The survey, informed by the portfolio data, was administrated to our students in 23 Diploma cohorts, representing seven different programs areas (Exploring Arts, Learning in the Early Years, French Immersion/Exploring Additional Languages, Teachers as Leaders and Mentors, Integrating Technology/Teaching Technology in a Global Classroom, Teaching and Learning in Today's Classroom, Supporting Diverse Learners). The research design was cross sectional and the survey was administered to students who were either in their first or second year of the graduate diploma to better understand the large scale impact of our programs. The return rate was 72% with 336 of 467 students completing the survey. This demonstrated the willingness of our students to participate in further survey research at an institutional level.

The demographics of the sample reflected the nature of the program offerings at this time (one quarter of the programs were *Learning in the Early Years* cohorts), and included primarily women (81% female and 19% male) and mature students (mean age = 38). The majority of our students were elementary teachers (66%), nearly one quarter were high school teachers (21%), only 3% were middle school teachers, and 9% were other educators. The population was diverse in terms of teaching experience. Fourteen percent had been teaching for three years or less, 34% had been teaching for 4-7 years, 14% had been teaching for 8-10 years, 14% had been teaching for 11-15 years, 12% had been teaching for 16-20 years, and 10% had been teaching for 21 or more years.

Results from the Portfolios

Through the portfolio data we attempted to develop understandings of how teacher inquiry moves our students to transformation of practice, as well as to illuminate various pathways that enabled transformative learning to occur (our first two research questions). Our results focus on three aspects of experimental learning: the catalyst, the direct encounter, and theorization of learning. We draw examples from three case studies, chosen based on their comprehensive descriptions of the teachers' learning journey, as well as the diverse pathways that they illustrate.

Catalyst

Most narratives in the teacher's portfolios began with a description of some sort of catalyst that led them on their journeys, typically an incongruence or misalignment between their goals, ideals, or values, and their classroom realties. Awareness of these incongruencies developed in various ways. The recognition of values or the realization of ideals often stemmed from autobiographical explorations of successes or challenges from the teachers' own childhoods. New pedagogical possibilities were introduced through scholarship, workshops, colleagues, or programmatic capacities. Other catalysts came from teachers' assessment of unmet needs within their classroom based on their observational or survey data. In the next section, examples will be drawn from the portfolios of Risa McLaughlin, Andrea Waich and Amanda Zanette[3] to illustrate this shift in thinking and mobilization toward cycles of inquiry and reflection.

For Risa, the inconsistency that catalyzed her learning stemmed from her observation that the type of play occurring in her classroom was not of the same quality as the play described in the articles she had been reading in her diploma program. She valued these perspectives and wanted her students to be "*curious, observant and engaged in their play and learning*." What

she observed, however, was not consistent with her ideals. She wrote,

> The play was loud, and chaotic. The students were very silly and moved around a lot. Their play seemed unfocused and unimaginative. I was questioning: why don't my students seem more focused? What was missing?

A similar catalyzing moment occurred in Andrea's inquiry, with tensions stemming from her assumptions regarding her students' physical interactions, which she perceived as *roughhousing*. The articles in her diploma program provided a different perspective, viewing rough and tumble play as an important aspect of development.

The catalyst for Amanda stemmed from her own autobiographical reflections.

> Imagine sitting in a classroom. All you hear are your thoughts, and all you see are the teacher's lips moving and the teacher walking back and forth around the room. You look at your teacher, to ensure he/she is aware you are trying to pay attention. Really you were lost a few minutes into the lesson, which makes it hard for you to listen. Finally, the teacher assigns the work. After re-reading the assignment and asking classmates for help, you can always arrive at completing the work. You are never disruptive in class, so the teacher is unaware of the minute amount of understanding you truly have. … This was me, Amanda Zanette, by grade 12.

Based on her own experiences as a student, Amanda's goal as a teacher was to "*try and reach all learners*" in her classroom, in which there were many behavioural issues.

Although different experiences catalyzed their learning, all of the teachers found entry points that were personally and professionally relevant, marked by an incongruence that needed to be resolved. As Kolb (2014) asserted, learning "is by its very nature a tension-and conflict-filled process" (chapter 2). Attending to tensions in relation to practice might be equivalent to what Mezirow (1990) described as a disoriented event that is necessary to catalyze transformative learning. Here however, the liminal space that invites transformation is experiential rather than cognitive. The potential of these catalysts to incite opportunities for learning illuminates the powerful nature of self-directed, learner specific goals when they stem from personal experience.

Direct Encounters

The catalyzing events encouraged teachers to seek direct encounters with the world and reflect on the outcomes. Actions were praxis oriented (Aoki, 1983), that is, intentional and reflective, infused by scholarship or guided by the teacher's own tentative theories about *what was going on* in their classrooms. In the portfolios, teachers described changing their interactions with students, parents or colleagues; their teaching and learning environments; their pedagogy; or the curriculum. For example, Risa restructured her approaches to classroom play centres[4] in hopes of deepening her students' play-based learning.

> Center time is feeling chaotic and crazy!! I think it is because all the centers are not open and the students are too congested in a few centers. Is it this or are they just not interested in what there is to play with. They seem unfocused and there are lots of behaviours I'm having to deal with. What am I missing? Maybe I should try having the kids do a plan before they play to help give them a focus? I'll try incorporating this into my day plan and see how it goes.

These encounters did not always involve change and sometimes focused on engaging in careful observation, seeking more information through surveys, or analyzing students' work samples. For example, Amanda developed assignments for her students and a questionnaire for their parents in the hopes of getting to know her students and to better understand their needs; while Andrea closely observed her students at play to better understand what she perceived as *roughhousing*. In all cases, seeking direct encounters within the context of their practice created a potential site for experiential learning.

Taking action, coupled with reflection, created an opportunity for experimentation and the theorization of teaching and learning. Reflections described in the portfolios included assessing whether the change was having the desired effect, exploring alternatives, documenting challenges, limitations, successes, and unanticipated outcomes, heightened awareness of self-and/or others, as well as making meaning through theoretical lenses. Reflections that were particularly powerful in moving teachers towards transformation of practice involved a subjective-objective stance, in which there was a balance between "awareness of self with curiosity and attention to 'other'" (Ladkin, 2005, p. 118-119). As Heron and Reason (1997) noted, participatory learning involves transactions between our inner world and our external experiences.

> When I hold your hand, my tactual imaging both subjectively shapes you and objectively meets you. To encounter being or a being is both to image it in my way and to know that it is there. To experience anything is to participate in it, and to participate is both to mold and to encounter; hence, experiential reality is always subjective-objective. (Heron & Reason, 1997, p. 277)

Approaches that are overly objective and lack subjective awareness are limited in that internal frames of reference that might inform or skew a direct encounter are not taken into account. Approaches that are overly subjective are limited in that they lack external validation of internal representations. Provisionally we hypothesized that the type of subjective-objective stance teachers take mediates their experiential learning.

We observed three different types of experiential learning in which a subjective-objective stance was evident in the portfolio data, including active experimentation in which teachers moved toward change within their worlds; critical subjectivity in which teachers attended to both internal and external frames of reference; and collaborative encounters in which understandings and/or practices were co-constructed. These different forms of subjective-objective engagement are described and illustrated with portfolio examples below.

Active Experimentation

As commonly described in the work of Schön (1983) and Dewey (1916/2008), experiential learning often involves direct experimentation in which learners actively try to impose change within their contexts and continuously frame and re-frame their understandings based on the willingness of the world to conform to their tentative theories. This active experimentation was evident in Risa's portfolio. She thought that encouraging the children to make a plan before they play might help to give them a focus and would deepen their play. She increased the time that the children were in centers so that they could plan, play and debrief. This first cycle of action and reflection was disappointing in that the world did not confirm to her tentative theory about why her students' play lacked depth. She

did not notice much change in the children's play and consequently sought sources outside of herself to reframe her praxis. She wrote,

> I brought in my day plan to have a fellow student look at it and we were chatting about centers and she mentioned how she put out particular things to invite the students to explore and I thought about the article by Deb Curtis on Creating Invitations for Learning. Up until this point I thought the play I was looking for and wanting my students to experience would just happen. Curtis said: "As I observe their conversations and activities, I get new information for what else to offer to extend the activities and learning possibilities."

Risa created invitations[5] to entice the children to engage in deeper forms of play-based learning, and observed a stronger alignment between her goals and what was occurring in her classroom.

> The play is beginning to become more focused and imaginative …These invitations have definitely changed the flow and engagement of my play time for the better. Using invitations allows me to incorporate aspects of the curriculum, and still allow free choice.

Risa exhibited a subjective-objective stance as she engaged in multiple cycles of action and reflection to work towards her goal of emulating the types of play described in her readings. Through continuous adjustments to her practice, involving cycles of developing her own tentative theories, testing her hunches, and listening to how the situation *talked back* (Schön, 1983), Risa was able to advance her teaching practice by making the connection between her actions and the consequences (Dewey, 1916/2008).

When Risa's tentative theory about what might deepen the play in her classroom was not supported, she sought suggestions from her colleague and drew upon scholarship to guide her subsequent actions. This example and others suggests that reflections alone may not be sufficient to move learning forward. Through exposure to ideas outside of the encounter, Risa was able to reframe the problem in a way that produced a more satisfactory outcome.

Critical Subjectivity

A second form of a subjective-objective stance evident in portfolio data, involved an openness to encounters in the world while maintaining a critically subjective awareness of self. For example, Andrea's inquiry, catalyzed by her concerns regarding *roughhousing*, motivated her to carefully observe her students' play. She was aware of her own frames of reference within this direct encounter, but was able to temporarily suspend her judgment in order to be open to what she might learn.

> Every day after school I see boys roughhousing out on our front lawn. My first instinct is always to go outside and make them stop, since I'm worried they might get hurt. But, what if this is a release for them after having spent all day sitting at a desk? They might need to use this time to express themselves physically, which they can't do in class. … How do I know how much rough and tumble play is appropriate? Or is that up to the students to know?

Intrigued by Pam Jarvis' (2010) theory that rough and tumble play contributes to social development, Andrea decided to closely observe and document students engaged in physical play in her classroom. Through these experiences, Andrea learned to identify *play faces*, that is, facial expressions that appear threatening but

are actually playful, and to differentiate between enjoyable and harmful physical interactions.

> In this case, the rough and tumble [play] involved not only two boys, James[6] and Matt, but also two girls, Michaela and Tessa. The play started out as Michaela being a dog and chasing the boys around the carpet, with Tessa directing Michaela. Then Michaela decides to tickle the boys …. She grabs onto Matt and James does too. James and Matt roll around, play fighting while Michaela grabs at them. … James has taken one of Tessa felts, and she grabs at him and tries to play wrestle with him to get it back. In both cases the students have "play faces" (Harlow), and are laughing the entire time. They frequently looked at me while I was filming, probably to see if I would stop them since I normally don't let them wrestle. It was comforting to see that they could play rougher and not get hurt and still enjoy it. …I now realize that I've seen this "play face" many times in my class and I can now accept that it is a good thing. In fact, I'd like to see more of it.

In her initial writing, Andrea reflected on her assumption that rough and tumble play is potentially harmful for students and on her concern that it violated school rules. She was able, however, to bracket her assumptions, draw from scholarship to make sense of her observations, trust students to mediate their physical interactions, and saw something unexpected – students were not being harmed, but were enjoying the play. Here her stance was critically subjective in that she was aware of how her own assumptions influenced her observations.

Co-construction

A third form of experiential learning involving a subjective-objective stance evident in the portfolio data, involved the collaborative development of ideas and/or practices with other members of the community. This stance is exemplified in the writing of Amanda, whose goal was to provide opportunities for her students to succeed, which she hoped would address some of the negative *behaviours* occurring in her classroom. Based on survey data from parents and students, as well as her analysis of student journals, Amanda realized that her diverse group of students required different ways to engage with texts and communicate their understandings. Collaboratively, she and her students developed a template (D.A.R.E) to scaffold comprehension and encourage various formats to represent learning. Amanda developed the initial template after reflecting on her own challenges as a learner, as well her data, which gave her more insight into her students' pedagogical needs. The template was then used, critiqued and revised by her students, producing a final version that was a co-construction of multiple perspectives, and supported learning in unimagined ways.

> *Basically, after realizing my students needed to be provided various ways to communicate their understandings, I came up with D.A.R.E. Now, please note that I did not begin with D.A.R.E. D.A.R.E is a result of my work combined with my class' ideas. I wrote up a template for my students to be able to record their ideas … while reading. The template allowed students to make connections, visualize, discuss their work, create questions, show how their thinking had transformed and state the big idea of an article. I started with the*

idea that my students would all be paired up with students who read at a similar level as them, and they would be able to discuss their readings in pairs. The students did this, after I walked them through each step for a full week.

Later, I told the students they needed to be my teacher as this was an assignment for my course. I asked the students to tell me what was confusing and where I could make the template more clear and interesting. The students had me add pictures, clarify my definitions and explanations. They also suggested that I put the Big Idea section before Transform, because being able to reach the big idea first would help students transform their thinking later. …

Finally, I had the students get into groups to create a simple name for the worksheet as I had to continuously refer to it as the "reading comprehension sheet". Some of the students came up with R.E.A.D, with R still standing for reading and A still standing for asking, but we took the word and turned it around to make Dare. This made it more exciting for the class.

Later, I asked the students to express how D.A.R.E has helped them. The students brainstormed on the board as a class and then they expressed their own learning through their journal. This was very rewarding, as students had learned things that I didn't realize they would learn through their work with D.A.R.E.

What makes this direct encounter such a powerful example of experiential learning is that Amanda embraced both inner and outer *arcs of attention* (Marshall, 2001, as cited in Ladkin, 2005), and brought the classroom community together to work collaboratively to develop a tool to meet their needs.

Theorizing Learning

In the portfolios, teachers documented notable shifts in values, dispositions, abilities, identities, and/or knowledge in their end of semester portfolios. Unlike Mezirow's (1990) theory of transformative learning in which cognitive paradigmatic shifts can subsequently trigger changes in behavior and identity, transformative experiential learning is more holistic in nature, involving co-occurring shifts in ways of knowing, doing and being.

Typically, teachers in our programs are encouraged to document their learning in the form of learning statements. Through their inquiries teachers, including Risa, Andrea, and Amanda, developed increasingly sophisticated professional capacities as articulated through their learning statements (below).

> I am learning that in order for the play in my room to become more meaningful and engaging I need to create more invitations for learning, to stimulate the students' curiosity and get them thinking. (Risa)
>
> I am learning that rough and tumble play is an important part of play for boys and it allows for their social-emotional development through physical means. (Andrea)
>
> D.A.R.E helped me realize that students will always understand information in a different way, so we cannot assess students in only one way. I am learning to provide and allow more choices for students to express their understandings. (Amanda)

While the learning statements in the portfolios varied in comprehensiveness, cohesiveness and quality, working to articulate experiential knowledge in some form is an important aspect of experiential learning. It enables learners to shift from concrete experiences to more abstract theorization that can influence subsequent decision making and problem solving, a challenging aspect of experiential learning (Kolb, 2014). Further, creating representations of understandings serves to stabilize ideas, enabling them to be subjected to self-assessment and peer review (Eisner, 2002).

Results from Survey Data

To answer part 3 of our question, namely: What is the impact of our programs? We administered a survey to our student population and asked them about transformations they may have experienced in their thinking, teaching, professional relationships, values, or sense of self, based on a list of the most common changes reported in the portfolios, and augmented with feedback from our instructors. Realizing that narratives documenting major shifts might be perceived as more desirable in end of term portfolios than other types of learning, we also asked questions regarding experiences of other types of learning that may not necessarily be considered transformative, including restorative[7], and affirmative learning and invited open-ended responses. Restorative learning involves returning to previously held values, dispositions, or beliefs that have been back-grounded or displaced (Lange, 2004), and affirmative learning involves developing one's ability to name, articulate, explain, or defend values, beliefs and/or practices.

We found powerful evidence that our programs were highly influential across cohorts. The vast majority of our teacher-learners, both in the first and the second year of the program, (84% in year 1, and 94% in year 2) reported transformations in their thinking, teaching, professional relationships, values, or sense of self during the semester. In addition, 35% of teachers in both years 1 and 2 reported that they had returned to previously held values, dispositions, beliefs that had been back-grounded or displaced (restoration), and 84% in year 1 and 90% in year 2 reported that they were better able to articulate or defend their beliefs, values, and/or practice (affirmation) (see table 1). There were no statistically significant differences between year one and year two students ($p \leq .05$), which perhaps reflects the unique nature of our Diploma programs in which the interfacing of theory and practice occurs throughout the program, and teacher-learners engage in multiple field studies, compared to other models of teacher education in which one practicum or action-research project occurs at the end of the program.

Table 1

Self-reports of transformation, restoration, and affirmation.

	Transformation	**Restoration**	**Affirmation**
Year 1	84%	35%	84%
Year 2	94%	35%	90%
Total	88%	35%	86%

Table 2
Changes in thinking, teaching, professional relationships, values, or sense of self as identified by teacher-learners.

Type of Transformation	Percentage
Making changes to my practice to be more consistent with my beliefs	47%
Working more collaboratively with students, parents and/or colleagues	43%
Diversifying my teaching	37%
Reorganizing classroom to reflect my values	34%
Better able to articulate my pedagogy	28%
Viewing myself as a researcher/inquirer	26%
Viewing education as a more transformational process than a receptive process	22%
Viewing students as more capable than before	22%
Acting as an agent of change in my school/community	16%
Changing my educational orientation to be more responsive	15%
Better able to advocate for students	12%
Viewing knowledge as more holistic	6%

The three most common types of transformations identified by teacher-learners on the survey included aligning practice with beliefs (47%), working more collaboratively with students, parents and/or colleagues (43%), and diversifying teaching (37%) (see table 2). Aligning theory with practice reflects a shift towards praxis, in which guiding theories and beliefs systems must be identified, enacted and assessed. Working collaboratively with stakeholders is consistent with a more subjective-objective stance and a democratic view of education in which all members of communities are empowered as teachers and learners (Cochran-Smith & Lytle, 2009). The diversification of pedagogy is consistent with Ministry of Education's goal that BC teachers will be able to support an increasingly diverse student population to develop their individual potential.

Approximately one/third of teachers in their first and second year of the program reported experiencing restorative learning (Lange, 2004) in which they returned to ideals, philosophies, and pedagogies that had been eroded at some point in their careers. Inhibiting factors identified included district cultures, the ministry curriculum, norms, habits, educational fads, and lack of time. Through reflecting on their professional trajectories, engaging in dialogue with colleagues, experimenting with their practice, or analyzing their own experiences as learners, teachers reported coming *full circle* with their pedagogies

philosophies, and/or values. As one teacher noted, *"the 'every day grind' can detract from reflecting on your practice… I find my ideals (i.e… classroom as community) coming back and being strengthened*." Some reported that their experiences in the program reignited their passion for teaching in general, or enabled them to revisit why they teach in the first place.

The majority of teacher-learners, in both the first year and the second year of the program (86%), reported experiencing affirmation of their current ideals, beliefs, values, attitudes, and/or practices. Teacher-learners identified four primary ways in which they experienced affirmation: through course-related articles, philosophies, or theories, dialoguing with colleagues, reflecting on their practice, and engaging in inquiry. As one participant noted, *"I am better able to name my values and strengths as an educator after reflecting on my 3 field studies."* Through affirmative learning experiences, teachers reported being better able to understand, articulate, explain, justify, and/or defend their *hunches* and classroom practices. Some teacher-learners reported feeling more confidence as a result of their affirmative learning experiences, which enabled them to feel more comfortable taking risks. *"I am feeling more confident when discussing "learning" with my colleagues. I feel like I am being listened to and respected more by my students' parents which could give me more confidence to assert myself."*

Discussion and Conclusion

Our research provided important insights into pathways for experiential learning that can move teachers towards transformation of practice. The portfolio evidence demonstrated that tensions rooted in teachers' own experiences created a compelling incentive for them to deeply engage with the world around them. The typical trajectory of working from catalyzing events within an experiential context allowed an active interrogation of subjectivity prior to drawing on conceptual knowledge. The teacher learners' experientially grounded and abductive approach within their own teaching contexts generated powerful opportunities for relevant and responsive feedback to occur.

Embracing a subjective-objective stance advanced practice in important ways, often leading to more nuanced and ethical practices. Multiple pathways were evident in this regard including active experimentation, critical subjectivity, or co-construction. Reflecting on direct encounters through the eyes of students, colleagues or parents enabled teachers to develop more responsive approaches that were better able to meet the needs and interests of diverse learners, an important expectation of the BC Ministry of Education (2016/17 – 2018/19 Service Plan). Reflection alone was often not sufficient to move practice forward when goals were thwarted, and teachers often sought input from colleagues and/or scholarship, highlighting the importance of engaging in experiential learning within a community of practice. Developing learning statements supported teachers in moving from concrete experiences to the theorization of practice, which could potentially influence subsequent decision making and problem solving. This finding reinforced the importance of formally taking up teacher inquiry as opposed to pursuing other forms of professional learning in which knowledge development may be more transient. Teacher inquiry takes teacher-learners beyond trying to change something and moves them into advocacy when they also are charged with having to articulate a rationale for what they are doing and why. This notion of praxis, in which action is intentional and theoretically guided, unites the four modes of experiential learning identified by Kolb (2014) - concrete experience abilities, reflective observation abilities, abstract conceptualization abilities, and active

experimentation abilities. Programs such as ours, that enable ongoing interplay of theory and practice, create environments that enable powerful experiential learning to occur. Indeed, the alignment of philosophies, beliefs, values and practice was a common form of transformation for the teacher-learners in our program.

Survey and portfolio data confirmed anecdotal reports that our programs were influential, enabling teachers to transform (or restore or affirm) their understandings, practices, relationships, values, beliefs, and/or sense of self. It is important to note, however, that the impact of experiential learning is multidirectional and reciprocal. As Dewey argued (1963/1938), "Experience does not go on simply inside a person…every genuine experience has an active side which changes in some degree the objective conditions under which experiences are gained" (p. 39). More research is needed to understand the impact of teacher inquiry on the environments that serve as the sites of experiential learning for teachers. We end the paper on a cautionary note, highlighting how our findings stand in contrast to the restrictions that can be imposed, when in-service teacher education is narrowly focused on content rather than experience and process. Particularly in an era of increasing budgetary constraints, and growing concerns regarding accountability, quality control, liability, and risk management, we are reminded that we have to advocate for programs that are, seemingly, resource heavy and time consuming when based on authentic practical problems and student generated solutions. Often such experiential programs require additional time and resources as instructors walk alongside the learner and mediate material, theory, content and processes with the teacher learner, rather than *for* or *with* the teacher-learner in mind.

Notes

1. The design of our differentiated staffing model, which appoints Master teachers with current experience as Faculty Associates to work with our pre-service and in-service teachers was originally conceived of by Dr. John Ellis. The GDE program was initially developed under the leadership of Dr. Tom O'Shea and Pat Holborn; however, programmatic philosophies and practices have been developed and refined by numerous individuals over the years.
2. Portfolio data were analyzed collaboratively by Cher and Margaret using the aforementioned in vivo method and later criteria associated with transformative learning (see Mezirow, 1990) and experiential learning (see Kolb, 2014). Initially Dr. Leyton Schnellert, who was an instructor in the Supporting Diverse Learners cohort at the time of this study, also contributed to the analysis.
3. Teachers' real names are used with their permission.
4. Centers are a time of free exploration for children in which the classroom space is organized to encourage specific types of activities (traditionally house, blocks, art, and the like).
5. Preparing play environments that have a variety of open ended materials, challenges and possibilities for exploration are referred to in the program as "learning provocations."
6. Names have been changed.
7. Thank you to Dr. Michael Ling for introducing us to this concept.

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