Social Ecology and Environmental Diversity in Teacher Education

David B. Zandvliet and Alisa Paul
Simon Fraser University, Surrey, Canada

Abstract

This paper offers reflections on the development and potential of a transformative teacher education project as one component of the Professional Development Programs (PDPs) at the Faculty of Education of a comprehensive Canadian university. The work of our teacher education program is set in Vancouver and utilizes the lenses of social ecology and environmental diversity (or SEEDs) to examine the roles of teachers in bringing an awareness of local/global sustainability issues to student learning experiences. Using auto-ethnographical methods our project reflects on a critical and place-based teacher education agenda highlighting democratic and participatory methods in its approach. We use our experiences combined with relevant literature to explore what inspirations might be drawn from our evolving approach. Drawing from Bookchin’s social ecology, our teacher education practices are based on the conviction that most of our present ecological problems originate with/in deep-seated social problems. It follows, from this view, that ecological problems cannot be understood, let alone solved, without a more careful understanding of our existing society and the irrationalities that often dominate it. In our most recent work, our teacher education candidates identified strongly with the related theoretical notions of Social Ecology and Diversity; hence, our identity (as seeds or seedlings) is in a state of flux as we continue to move and adapt to our current socio-political conditions.

Keywords: Autoethnography, education for sustainable development (ESD), professional development, social ecology, sustainable development, teacher education.

Introduction

This paper offers reflections on the development of a transformative teacher education project: the Social Ecology, Environment and Diversity (or SEEDs) program as a component module of the Professional Development Program (PDP) at the Faculty of Education of a comprehensive Canadian university. The work is set in the greater Vancouver area and utilizes the lenses of social ecology and diversity to examine the roles of teachers in bringing an awareness of local/global sustainability issues to their students’ learning experiences. Importantly, the study also fits in genre of studies presented in the Journal of Teacher Education for Sustainability (JTES) as it deals with the complex co-evolution of nature and people related to the practice of teaching (Salite et al., 2022).
These are the stories that inform me what my depth of character might mean and contain the many layers of self that I push past and through on my journey back to my centre... The edge of the deep woods begins with tall grasses and salmonberry bushes and as I draw closer I encounter the trees, like arrows bursting from the earth. (Reflection, Teacher Educator)

The inclusion of sustainability within the teacher education discourse is increasingly important. A recent study by Goller et al. (2022) found relatively limited understandings and substantially negative attitudes that were held by teacher educators on sustainability topics and concluded that further research would be needed in order to develop measures to bring about systemic change in teacher education. Further, the work of Koskela and Kärkkäinen (2021) showed that student teachers’ perceptions of sustainable development could often be quite narrow: considering mainly the social dimensions of sustainable development with little focus on the economic or environmental dimensions. These results provide important information about student teachers’ perceptions in the teacher education context. Another study by Sunthonkanokpong and Murphy (2019) argues that teacher education has an important role to play in the achievement of the sustainable development goal (SDG 4) regarding inclusive, equitable, quality education. However, they have found that there has been limited attention devoted to this issue in teacher education.

Our study responds to this context by using auto-ethnographical methods in our project to reflect on a critical and place-based teacher education agenda that highlights democratic and participatory methods integrated in its approach. We draw on our experiences combined with relevant literature to consider the inspirations that might be drawn from our approach. Drawing from social ecology (Bookchin, 2007), our teacher education practices are based on the conviction that most of our present ecological problems originate with/in deep-seated social problems. It follows, from this view, that ecological problems cannot be understood, let alone solved, without a more careful understanding of our existing society and the irrationalities that often dominate it. To make this point more concrete it is in the intersections of economic, ethnic, cultural, and gender issues, among many others that lie at the core of the most serious ecological problems that we face today – apart from those that are produced by natural catastrophes:

Indeed, to separate ecological problems from social problems – or even to play down or give only token recognition to their crucial relationship – would be to grossly misconstrue the sources of the growing environmental crisis. In effect, the way human beings deal with each other as social beings is crucial to addressing the ecological crisis. Unless we clearly recognize this, we will fail to see that the hierarchical mentality and class relationships that so thoroughly permeate society are what has given rise to the very idea of dominating the natural world ... (Bookchin, 2007, p. 1)

In our work, we have implemented an ecological and place-based framework to situate and interrogate our work in the surrounding community (Zandvliet, 2016). This ‘ecology of home’ framework allows students to consider the various ways that we experience local environments, including the social, ecological and technical influences that affect local community at home ‘where we live’. In Gruenewald’s (2003) words, as teacher educators, we seek participatory praxes which ‘ultimately encourage teachers and students to re-inhabit their places, that is, to pursue the kind of social action that improve the social and ecological life of places, near and far, now and in the future’ (p. 7).
The metaphor of ‘seedling’ is important as we share a narrative of more than 15 years as we have struggled to conceptualize a model of sustainability in teacher education that moves beyond elective coursework going to the heart of teacher education. In our most recent work, our teacher education candidates identified strongly with the related theoretical notions of Social Ecology, Environment and Diversity; hence, our identity as ‘SEEDs’ is in flux as we continue to move and adapt to current socio-political conditions.

Autoethnography as a Method

Our study describes through its narrative: both instructors’ and students’ experiences in the design and life of the SEEDs module as it is unfolding. In relating these, we use a method in which: “researchers constitute their own object of research so that the knowing subject and the research object become one” (Roth, 2005, p. 109). Our inquiry also relates to the ‘lived experience’ (van Manen, 1990) of ourselves as course designers and instructors, alongside voices of participating teacher candidates. Each of these is described as they relate to critical, place-based education and the relationship of these to other learning outcomes associated with teacher education. Our study also employs participatory action research methodology. Participants in this type of inquiry are viewed not only as co-creators of the knowledge (along with researchers and others) but also have access to (co-owning) knowledge generated by the research (Gaventa, 1988).

Burke and Cutter-Mackenzie (2010) utilized autoethnography to examine concepts of pedagogy, environment and place in a program for student teachers in Australia. Similarly, Ameli (2022) used multispecies ethnography in Germany to study the presence of nature within higher education contexts. She hypothesizes that a relationship with nature leads to a change in teachers’ worldview: a view shared by our team, that direct interaction with nature is essential for a paradigm shift in education.

Using similar methods, our work relates our experiences as educators within and alongside a community of pre-service teachers. This reflexive process provided an entry point into how environment and place might be treated pedagogically using urban places, parks and gardens as a space and place for emerging teacher practices. In our research, narrative discourse is used as a way to share our findings related to the on-going program developments. The use of autoethnography and narrative for research in education is increasing, though its potential to theory and practice has not yet been fully explored (Nicol, 2013). In this case, we use autoethnography to relate personal accounts of our own experience with/in SEEDs from which we then derive key research findings. These data emerge from the interpretation of a variety of interviews and personal reflections that were undertaken at various times during the life of the module.

Autoethnography can also be described as an approach to writing and research that attempts to describe and analyze personal experience in order to more clearly understand cultural experience. This approach challenges traditional forms of research and positions research as a political and socially conscious act. As we also attempt to do in this writing, researchers use principles of both autobiography and ethnography to do and write an autoethnography. Thus, as a method, autoethnography can be considered both a process and product (Ellis et al., 2011).

Importantly, as an emergent research method, autoethnography also allows the author to write in a personalized style, drawing on his or her experience to extend our
understanding about the social phenomenon under study (Wall, 2006). As a research method, it is grounded in postmodern philosophy and is linked to growing debate about reflexivity and voice in research. The intent of any autoethnography is to acknowledge the link between the personal and cultural and make room for nontraditional inquiry and expression. Finally, autoethnography (as a writing style) borrows from autobiography in making its texts aesthetic by using techniques of ‘showing’, intended to bring readers ‘into the scene’ – particularly into thoughts, emotions, and actions of the authors or researchers. In contrast, ‘telling’ is a strategy from ethnography that provides some distance from the events described, allowing for further analysis and/or interpretation (Ellis et al., 2011). For the purposes of this paper, we use both techniques to elucidate our findings (or meaning making) for the reader.

Preparing the Ground

With its summer programs in environmental education, (the) Faculty of Education has a long history of place-based and ecologically minded teacher education (Zandvliet & Brown, 2006). Still, through much of its 50+ year history, environmental education was limited somewhat by an (elective) summer course structure. The first departure from this model, the Global Communities module (a precursor to the current SEEDs program), experimented with another form of environmental and sustainability education: one that aimed to critically re-examine the epistemology of teacher education itself (Alsop et al., 2007). This approach relates closely to the eco-criticism component of sustainability education espoused by Saiful and Setyorini (2022) where eco-criticism may enhance the development of teachers’ pedagogical content knowledge (PCK) about sustainability.

Our original teacher education module focusing on sustainability was a January intake module based at the main campus of the university and its pre-service teachers were placed throughout the Metro Vancouver region of British Columbia for practicum experiences. The module attracted students with a diversity of backgrounds and interests and specifically utilized a lens of social ecology (Bookchin, 2007) to examine the role of education as/for global awareness. In this model, pre-service teachers and their school-based mentors (or school associates) were encouraged to consider the broader context of the social and environmental community as the true role and purpose for teaching.

In modeling this approach as instructors, we attempted to share significant place-based experiences as part of the instructional process and created seminar experiences that in turn, helped to set the tone for student teachers work in schools. Each member of the module typically shared their thinking about classrooms as a social grouping while also examining their role in influencing positive interactions between the physical and social elements of their setting through self-directed, participatory action research.

Conceiving of teacher education as a context for social and environmental change was initially mired with difficulty as the instructional team initially struggled with many issues including their own identities as teacher educators. As the first cohort of student teachers arrived in January 2004, the team wrestled with the module’s purpose, curriculum and composition. What does ‘sustainability’ or ‘environment’ mean in a teacher education context? Was ‘ecological’ a better word to describe what we were about? What should the focus on ‘sustainability’ be? (Alsop et al., 2007).

Ultimately, the goal of the Global Communities module was to work to infuse an ecological ethic in the work with student teachers while covering ‘all the bases’ in terms
of classroom preparation, classroom management, lesson and unit planning, teacher professionalism and reflective practice. The module eventually accepted eight (full year long) cohorts of pre-service teachers during the beginning of its run. Still, as student-participants were placed in the module (with no self-selection), often its environmental sustainability focus was diverted due to other requirements that were deemed more prominent in the general discourse of teacher education. We asked ourselves the question: what would it mean to live well as teachers (Darling-Hammond, 2006).

Still, it is important to note that there is much criticism of teacher education itself (Luke, 2004). As such we live in ‘dangerous times’ as Cochran-Smith (2004) noted, in which a fixation on impoverished (or market-driven) notions of teacher quality spawned the re-emergence of a more technical view of teaching and an instrumentalist agenda of teacher ‘training’ rather than a broader education (Alsop et al., 2007). Despite the challenges, the work effectively ‘prepared the ground’ for the work to come.

Early SEEDs

In January 2011, the second phase of this teacher education cohort began and was originally termed Sustainability Education in an Environment of Diversity (or SEEDs). This time it was implemented as a pilot project – though its intent was similar in purpose and structure to the earlier ‘global communities’ form of the cohort. What made the earlier SEEDs program unique was that it provided a range of place-based and outdoor field experiences, while also requiring teacher candidates to register for a place-based and intensive project-based experience in a field location (Haida Gwaii). As with the earlier form, the general goal of the module was to develop teachers with the motivation and capabilities to act as key change agents in transforming education and society to create a more sustainable future (Ormond et al., 2014). In fact, the name for SEEDs was selected as part of a consultative process with our first intake of students.

Environmental Sustainability Education (ESE) as it is referred to has in the past been referred to as Environmental Education (EE) and/or Education for Sustainable Development (ESD), amongst other terms (see for example Sauvé, 2005). Needless of the perspective taken, each of these forms can be characterized by elements of the same pedagogy: experiential education, critical pedagogy, constructivism and place-based education. In the early days, SEEDs instructors modeled this as a curriculum framework for their students. Learning experiences focused on direct experience, critical reflection and negotiation. To support this, SEEDs spent a great deal of time in the program promoting the British Columbia Ministry of Education’s (2007) Environmental Learning and Experience (ELE) Framework as a model to follow in their own practice. The ELE focused on providing a single interdisciplinary approach for K-12 teachers across BC.

Ormond et al. (2014) conducted a detailed case-study that focused on the teacher candidates enrolled in the initial SEEDs module, using their experiences as the main source of data. However, the instructional team (2 faculty associates and the faculty sponsor) were also important data sources for the study. The case study attempted to understand the nature and impact of the SEEDs module while also documenting its strengths and weaknesses in an attempt to implement its objective of ‘environmental education as teacher education’. The faculty sponsor for the module went on the record at that time reflecting that:
I have no doubt that we created a very positive and engaging model for students as they developed as teacher professionals but I also questioned whether we achieved any greater gains with this model of EE as opposed to the earlier models of workshops and intensive course experiences. I do note that many students highlighted the Haida Gwaii field experience (for example) as the highlight of their program — but this was the only part of the program that lied outside of the formal structure of the PDP ...

Even though the SEEDs module continued for six more years in this intensive format, the university administration decided (after the initial pilot) to discontinue the mandatory and integrated field experience component that was conducted in Haida Gwaii. With this part of the experience relegated back to the elective course model: the social fabric of the offering was changed and could no longer be viewed as part of an ‘integrated’ program in teacher education. As before, the limitations of offering a more robust experience for students seemed to be confounded by policies and practices and inconsistencies across PDP in defining the role of the faculty sponsor. As the faculty sponsor lamented then:

I had little or no influence on these processes and so perhaps, Pre-service teacher education, due to a bureaucratic structure is not the most productive venue for EE ... (Ormond et al., 2014)

This inference (by the faculty sponsor) then was that further reforms were needed if we were to realize our goals within the context of teacher education.

Reforms to the Model of Teacher Education

I feel like this term is a gift and I imagine that, as with all experiences, you can be transformed by your learning or not, but when you lean into it, it feels right, illuminating ... (Teacher Educator)

In the past few years, there have been significant changes in the delivery of the Professional Development Programs (PDPs) at this university with the potential to influence our approach to teacher education for sustainability in the coming years. The first was a program change for all modules in the program (the inclusion of an additional ‘Education 400’ semester), the second was a purposeful move for the SEEDs module to locate our work in a community location (a local Nature Centre) rather than a classroom at the university. The following sections of this paper explore the potential for each of these reforms in professional programs both for teacher education generally, and specifically for sustainability as the life of the SEEDs module moved into its third phase.

Rationale for Education 400

The new general structure for the PDP is designed to prepare student-teachers for a career in education by allowing them to explore all the intricacies of the teaching profession. The inclusion of the additional Education 400 semester extended the program to four semesters integrating theory and practice. Figure 1 represents the new program structure.
In the overall structure of PDP, student teachers begin their learning journey by exploring the historical, philosophical, social and cultural foundations of education and schooling during the Education 400 semester. Working in small cohorts (termed Professional Learning Communities or PLCs), student teachers focus on developing professional orientations and identities that recognize the expectations and responsibilities of practicing teachers. Specifically, in EDUC 400, pre-service teachers begin an inquiry into First Nations perspectives and as well as a range of other goals, including: developing a commitment to social and ecological justice and responsibility; and taking responsibility for one’s own professional development through inquiry and critical reflection. This part of the program is offered on the main campus of the university in a hybrid lecture and seminar format.

Seminars for SEEDs

Eight days, I have been with this group of student teachers and teaching them for eight days. It feels more and more like a cohesive group, a community of my students and I am anxious that they succeed and that they do well and come across well. I see their moments of “aha” with great pride and when they answer a question thoughtfully, I take their accomplishment as a sign; foolishly, perhaps, that strange instinct that we have as teachers, to attribute and attach ourselves to our students’ works … (Teacher Educator)

Continuing on in the revised teacher education program, pre-service teachers move to complete three additional stages, or semesters: Education 401/2 (seminar), Education 404 (coursework), and Education 405 (practicum) after the initial intake of the Education 400 semester. The timing of each years’ cohort of SEEDs begins with a January start (typically with 32 students) and is seen as part of the Education 401/402 semester: a seminar integrating theory and practice. During this phase, students study teaching through the integration of in-classroom practicum experiences and instructional seminars which are then co-led by a team consisting of Faculty associates and a Faculty sponsor. In this part of the program, students have self-selected to be part of the SEEDs learning community:

Everyone in our module has connected so well with one another, which might be in part due to the fact that we often learn and spend time together in an outdoor setting. There is something quite special about this, and I wonder if a regular classroom setting would have resulted in this … (Student Teacher)
During the typical 401/402 semester, the instructional team focuses on developing a positive and supportive learning environment for the students as the module structure forms the learning community for the remainder of the student teachers’ program: meeting periodically throughout the remaining Education 404 (coursework) and Education 405 (practicum) semesters until program completion in the fall. To this end, in early January, an overnight retreat featuring a number of community building activities, was also implemented. This proved to be a very effective way to build community.

In addition, the faculty sponsor canvased students about what would constitute a positive learning environment for their seminar experiences using the established PLACES assessment tool (Zandvliet, 2012). In brief, student teachers highlighted a variety of constructivist and/or place-based aspects that they would find valuable for their learning in the module. These included a focus on ‘group cohesiveness’ as being important for their learning as well as opportunities to use their ‘critical voice’ in conversations about the curriculum of teacher education. There was also a wish for strong ‘community relevance’ in the curriculum coupled with ample opportunities for ‘environmental interaction’ in the field.

In this new format for SEEDs, both members of the team (Faculty associates and Faculty sponsor) intended to focus the work of the module very strongly on place-based forms of education and to model these clearly through the pedagogy of the 401/402 semester. For several years prior, the faculty sponsor had advocated for the SEEDs module to be located ‘in community’ rather than on the university campus. After some initial resistance, a decision was taken to allow this for one semester as a pilot at a nearby nature center: a facility located a short walk from the university campus.

Seedlings in the Nature Centre

As evidenced by writing excerpts from our pre-service teachers, student journaling also became an important aspect of our program and offered us many insights into the mindset of our student teachers. As Fox et al. (2019) point out, keeping a learning journal can deepen student teachers’ reflections on the pedagogy of sustainability over time:

*I couldn’t think of a better location for the SEEDS module. Learning about place-based learning sitting in a classroom or from reading articles is one thing, but to actually be in a location where it can be experienced firsthand is so much more rewarding ...* (Student Teacher)

On the first day of the semester, the students and the instructional team met as SEEDs for the very first time, we took the unusual step of first meeting on campus and then (rather dramatically) requested the students to walk/navigate to our new home at the Nature Center. While only 15 minutes away, many students took longer than expected ‘experiencing community’ in different ways on their journey to what would be their new classroom. While intentional, this activity also had the effect of highlighting what would be different about this aspect of their place-based and ecologically minded program.

*We are able to see place-based learning incorporated into our own lessons and benefit not only from gaining great tools to use as practicing teachers, but have the advantage of place-based techniques used for our own learning as student teachers ...* (Student Teacher)
Nestled beside the Green Timbers urban forest, the Nature Centre bills itself as a place for kids and adults to explore nature right in the most urban part of the city. Operated by the local municipality, the center maintains various outdoor and indoor drop-in activities, has an ‘exploration room’ along with two classrooms. From here, the center runs its nature programs for both kids and adults. In addition, they also run an onsite preschool while offering a range of school programs that allow teachers to bring their classes to the site and experience hands-on and updated curriculum-linked programs. Recently, the center began to offer professional development for local teachers, an activity that we hoped we would collaborate on in the future.

Meeting at the Nature House allows us access to a variety of rewarding outdoor opportunities and I look forward to every time we meet at that location. Being able to access the outdoor environment in this manner has really had a calming effect on my studies ... 

I just wanted to share that I feel the Nature Center is an incredible space for the SEEDS module. It has allowed us to learn the true value of place-based learning. Additionally, the space inspires play, creativity and a certain connectedness that cannot be achieved in a typical university setting ... (Student Teacher comments)

The ‘seedling’ metaphor here also highlights the deep sense of learning potential that the team perceived at this point regarding our work with sustainability and teacher education while situated at the Nature Center. We acknowledged the work that came before the current iteration of the program with the Global Communities and earlier version of SEEDs and in our studies of our new home at the Nature Center, we learned that the building itself was once a nursery for Forest Renewal BC and housed the first tree seedlings that would grow to form a new era in environmental stewardship in the Province of British Columbia (BC). The power of this history (and metaphor for our work) did not escape us and we hoped that our work in teacher education would change the culture of teacher education here in BC and beyond.

Disruption and Resilience

Not long after our described experience of SEEDs to Seedlings had taken root: an immense disruption moved to set back many of our earlier developments. The COVID-19 global pandemic presented for many educators an unprecedented challenge to ongoing sustainability strategies and educational initiatives around the world (United Nations, 2020; Kohl and Hopkins, 2022). In many countries, education strategies and funding sources were negatively impacted and, consequently, vulnerable groups were highly affected. Further to this, registrations for the teacher education program (as a whole) declined and many cohorts within the teacher education program were forced to move to an online delivery format comprised of seminars conducted virtually (e.g., Canvas, Zoom, Teams, etc.).

The practicum experiences for many of our pre-service teachers were also deeply impacted by school closures and health protocols during COVID (masks, etc.). Throughout this time, the SEEDs cohort met in a hybrid format, conducting daily virtual seminars (as with other cohorts) while also supplementing these by meeting in small groups in
outdoor locations when permitted by current health protocols and directives. Though not ideal, these short outdoor experiences served as a point of resilience during a difficult time in the program, allowing for grounding and emotional respite for our pre-service teachers and helping them cope with disruption. An unfortunate consequence of this was that SEEDs cohort was eventually displaced from its home at the Nature Center.

As part of the dark history of residential schools in BC, there has also been a growing understanding that schooling was a tool of genocide, to enculturate and control Indigenous people rather than to empower and educate them. This point was driven home by the recent discovery of thousands of unmarked graves on the grounds of former residential schools in BC and across Canada. Thus, important work is needed to reconcile and heal the trauma this damage caused, which was compounded disproportionally by the COVID pandemic (United Nations, 2020) and noted by important bodies such as the UN (see United Nations, 2007) influencing the role and purposes of teacher education. The concept of Education for Sustainable Development (UNESCO, 2015; United Nations, 2017; 2019) and UNESCO’s Sustainable Development Goals (or SDGs) may have an important role to play (Kohl & Hopkins, 2022).

In response to these developments, further work is now underway to decolonize and bring in more Indigenous perspectives for teaching and learning related to issues of environment, sustainability and teacher education in the British Columbia context specifically (Zandvliet et al., 2023). This work, informed by the concept of biocultural diversity refers to our assertion that the web of life is made up of both the diversity present in the natural world and of the diversity of human cultures, and that these are interrelated and interdependent. Throughout history, human cultures and languages developed in symbiosis with local environments, expressing and communicating place-based values, beliefs, knowledge, and practices (Maffi, 2007). Indigenous communities hold the idea of ‘oneness with the natural world,’ which the concept of sustainability within teacher education also seeks to capture. More specifically biocultural diversity seeks to describe that people are a part of, not apart from nature and have a responsibility to steward the life system in both their personal and professional lives (Orr, 1994). In this we must hope that our education systems will remain both resilient and adaptive and up to the task at hand.

**Moving Forward**

In this paper, we have considered both the privilege and the irony that comes with the teacher ‘standing in front of a room’, and the hours it took of ourselves also sitting in front of that someone else ‘standing in the front of a room’. The oppressive and dominant school structures that have become the cultural norm in schools, colleges, universities and teacher-training institutions and the obedience required to conform to this model are implicit in the structure of university and school classrooms, the null curriculum and a system that encodes and inculcates behavior towards an unquestioned authority.

*Hierarchy, today, is becoming as pronounced an issue as class – as witness the extent to which many social analyses have singled out managers, bureaucrats, scientists, and the like as emerging, ostensibly dominant groups …* (Bookchin, 2007, p. 8.)
As we continue to work in confronting the power structures and dynamics in our own learning environments within teacher education, we can begin to shift the role of teacher and student from being a hierarchical one into one that exhibits a greater ‘shared control’. Resultantly, this change appears to also influence teachers’ sense of power and/or self-efficacy. In our work, we are actively questioning what the relations are between these factors and are searching out strategies to describe how our democratic practices assist us in growing the capacity of learners into those of teachers. We believe that this practice of sharing control in the classroom helps to dismantle hierarchical (colonial) systems of education.

Reciprocity

There is another notion, or idiom in our society that has fallen by the wayside, the idea that “you don’t get something for nothing” ... But we don’t often challenge this notion that there is a cost to everything; (instead) we expect that we can pay the monetary value and be done and that somehow the financial cost is more than enough to cover the services that we are getting, without taking into full account the negotiated spaces and emotional, environmental (ecological) and social costs that are associated with this ... (Bookchin, 2007)

To us, reciprocity means so much more than giving back, just as service learning might take on a greater, wider definition when applied to the teacher education model we are espousing. The pre-service teachers in the SEEDs module understand the role that they are privileged to take on: as future leaders in their communities. They are embracing the challenge and seeking out, actively, opportunities to give back and pondering ways that they could make meaningful and authentic connections within the communities they teach in, striving to continue their service. It has been important to us to document this journey, to share with them the high value that we see in service and reciprocity and that they are able to engage in this dialogue in meaningful ways, means that they are willing to engage deeper (nesting) within their communities and with greater effects.

This ‘nest’ is a metaphor for so much of what I value in education, the interweaving, the inter-connectedness, the layers of meaning in relationships, so that when (academics) say that “human culture is nested in ecological systems”, I can visualize this nest of interwoven, and inter-connected ecological systems, the play of life forces on each other; and there in the nest, rooted and intertwined, sits human culture, pushing and pulling against the limited “resources”, balancing and clearly falling out of (on occasion) this nest ... (Reflection, Teacher Educator)
References


Correspondence concerning this paper should be addressed to Prof. David B. Zandvliet, Ph.D., Simon Fraser University, Surrey, Canada. Email: david_zandvliet@sfu.ca