

# *Reimagining Teacher Education through Design Thinking Principles: Curriculum in the Key of Life*

JODI LATREMOUILLE

KIMBERLEY GRANT

FRANCES KALU

DIANNE DODSWORTH

*University of Calgary*

POLLY KNOWLTON COCKETT

MARY-ANN MITCHELL-PELETT

JIM PAUL

*Education is at the point at which we decide whether we love the world enough to assume responsibility for it, and by the same token save it from that ruin which except for renewal, except for the coming of the new and the young, would be inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor to strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world.*

Hannah Arendt, 2006

Overture: Reimagining Curriculum as

## Design Thinking

Inspired by Arendt's (2009) "task of renewing a common world" (p. 193), our team of ten instructors sought to reimagine *Curriculum II - Arts & Humanities*, an intensive course in the final semester of a two-year Bachelor of Education after-degree program at the University of Calgary. At the beginning of the winter 2015 term, students attended three condensed courses, for a total of six hours per day, four days per week, over five weeks. *Curriculum II - Arts & Humanities* (hereafter CII), along with two other required courses entitled *Curriculum I - Science for Responsible Living* and *Assessment*, were taught in the interlude between a 6-week *Field III* practicum and a final 8-week *Field IV* practicum. This program was delivered across ten cohort-based sections divided into elementary and secondary specializations, with each class composed of up to thirty interdisciplinary student-teachers.

In a time when teacher education often focuses on training teachers "as 'social engineers', directed to 'manage' learning" (Pinar, 2012, p. 37), we sought to challenge the "dominant view of professional knowledge as the application of scientific theory and technique to the instrumental problems of practice" (Schon, 1983, as cited in Dunne, 1997, p. xv), embedded both in individuals and in the structure of the university itself. Through the lenses of management, accountability and technique-driven preparation, the act of teaching has come to be interpreted as a "service rendered" (Pinar, 2012, p. 36), measured "objectively" by demonstrable deliverables and pre-determined outcomes. Schooled by these institutional discourses, many pre-service teachers seek to acquire

increasingly technical curricular, instructional and assessment techniques in an effort to feel more fully prepared to teach in diverse classrooms.

Our aim in CII was to provoke these discourses in order to develop a more authentic and responsive curriculum. The principles of design thinking – a problem-based process which, through curiosity, empathy and interdisciplinary thinking, generates playful and collaborative creative experimentation – provide a powerful response to instrumentalist views of teacher education in particular and curriculum more broadly. Design thinking, along with the Arts, Humanities, and digital-media-social technologies, is poised to revolutionize and transform lives and worlds in the early 21<sup>st</sup> century, just as the natural sciences and information communication technologies did in the last century. In asserting that human beings are inherently attuned to learning through wonderment, interpretation, ideation and experimentation (Whitehead, 1929), teacher educators may open up deeper educational conversations whereby “teaching and learning can lead to other worlds, not just the successful exploitation of this one” (Pinar, 2012, p. 39).

To reimagine CII, a general course outline was offered as a living curriculum document to the instructors and their classes of pre-service teachers. One unique characteristic of this course outline was the instructor addendum, which allowed instructors to articulate their educational philosophies and to craft each section of the course based on their individual strengths and professional judgment. With the

curricular principles of design thinking in mind, the course outline presented three main tasks. Firstly, the pre-service teachers conducted an inquiry-based, field-oriented ‘know thyself’ *currere*-audit (Pinar, 2012, p. 47), as a launching point to contemplate and discuss what was and should be *worth their while* within praxis-normative educative fields (Friesen & Jardine, 2009, p. 39). The pre-service teachers then utilized “Design as Exploring, Connecting, and Intersecting” (Carroll et al., 2010, p. 39) to playfully generate Humanities/Arts Interdisciplinary units premised on an emergent curriculum (Osberg & Biesta, 2008), and variously informed in individual course sections by gender, holistic, Indigenous, social, environmental, and critical place-based sensibilities. Finally, the pre-service teachers demonstrated how their unit was developmentally educative, pedagogically appropriate, and ethically provocative for K-12 learners. In weaving the design thinking principles of interdisciplinary questioning and caring within reflective curricular, instructional and assessment practices, pre-service teachers in CII practiced developing authentic, responsive and generative learning experiences.

## Curriculum in the Key of Life

### Prelude: A Chorus of Curriculum Imaginings

The instructors’ experience of this CII course can be likened to the notion of a choral performance, whereby all singers breathe and intone in unison, paying careful attention to one another, with each individual voice providing a unique depth and character to the piece. The

interaction of the unifying voice of the general course outline with the multi-tonal addenda from section instructors created openings of real possibility in this reimagined CII course. What follows is a series of six miniature musical movements, each written by one instructor on our team. Every section is written in the first person to express what each author individually experienced as the challenging, enlivening and multivocal nature of teaching.

The author of the first movement describes the cacophony of pre-service teachers contemplating curriculum as “what could be.” In the second movement, another instructor delves into the dissonance that arises when technical discourses of teaching come up against the question of what it means to *become* a good teacher. A third instructor asks in a quiet interlude what it might mean for teachers to listen with the heart, through the Blackfoot sensibility of *aokakio’siit* (being wisely aware). In the reflective movement that follows, the fourth author reminds us that reconceptualizing curriculum allows and often even pushes teacher educators to also re-envision themselves. The low, earthy tones of the fifth instructor’s movement ground curriculum in the localities of place-based pedagogy, while the final author’s piece reaches soaring high notes with an appeal to resonance and reflection in the joy of learning. In reflecting on the challenges and possibilities provoked by the principles of design-based creative and collaborative curricular experimentation, the diverse voices of CII open up a rich, difficult, often transformative curriculum chorus of responsibility and renewal.

### First Movement: A Cacophony of

### “Curriculum Makers”

If teachers are to truly love children enough to prepare them for the task of renewing a common world, they will need to take up the challenge to re-conceptualize their known curriculum and interpret it in new ways, transforming “what is” into “what could be.” In moving from the common curriculum debate around “what should the curriculum include?” towards the more democratic question of “who should determine what the curriculum includes?” (RSA, 2012, n.p.), our CII team leader invited course instructors to include personal addenda with the general course outline. This novel concept of trusting instructors to formally address the course intentions, each in their own way, was powerful. It allowed each instructor to approach the curriculum through their individual strengths and pedagogical approaches. The sense of professionalism was felt in the air! This approach offered the potential for a richer, deeper learning experience; the pre-service teachers, in turn, were challenged to immerse themselves as “curriculum makers” in re-imagining a Humanities approach to 21<sup>st</sup> century teaching and learning. They reflected deeply on their most recent classroom teaching experiences, identifying areas that did not fully embody inquiry-based, “curiosity-driven” practices. Next, they researched, pondered, and shared their visions for re-created learning experiences for their students. The pre-service teachers also talked about the complexities and difficulties of representing the learning needs and interests of children through meaningful cross-curricular integration and authentic assessment while addressing curriculum outcomes. Through this re-

imagining, they experienced and shared the fullness of “making curriculum their own,” with its inherent successes, struggles and challenges.

These re-created learning experiences were intentionally interdisciplinary, problem-based and creative. One imagined experience included connecting first grade children in Prairie, Northern and Maritime classrooms through online conversations. Another experience invited Indigenous leaders into the classroom to support students as they created and presented Indigenous myths. A third unit incorporated traditional Inuvialuit games into the Physical Education and Humanities curricula. This unit, which culminated in a school-wide Northern Games Day, included kicking games, balance games, power games and endurance games. In collaboration with the classroom teachers, children would research and prepare videos on the historically-based objective of each game in preparing Northern children for the hard, semi-nomadic life on the land. These units involved active thinking and doing, decision-making, a variety of communication technologies, and deep, respectful connections to each other and the Earth.

As “makers of curriculum,” these pre-service teachers on the cusp of moving into classrooms struggled and resisted in what, at times, resembled a true cacophony of ideas. Through modelling, immersion and enacting, they reimagined curricula that intentionally and meaningfully reflected the children in their care, within their unique classrooms and communities. At the conclusion of the course, the members of our class celebrated their quest to renew a common world by

contemplating, making, enacting and living curriculum with their students.

## Second Movement: Dissonance and the Resilience of Dominant Discourses

*[M]any student teachers... quite understandably, come in to pre-service courses wanting neatly packaged advice on how to survive and flourish in the classroom situation: ... in order to move on, we need to abandon easy answers, and in particular those which claim universality.*

Alex Moore, 2004

*Thanks for all the tips and tricks. I learned a lot!*

A student note, 2015

In his book, *The Good Teacher: Dominant Discourses in Teaching and Teacher Education*, Moore (2004) warned that "if we allow them to, discourses will constrain our actions, limit our understandings" about what it means to be a good teacher (p. 31). As discussed, one of the aims of the CII course was to bring into the light and thoughtfully examine some of the discourses that have become part of the air we breathe in schools. Having been a high school teacher for many years, I was excited and optimistic about the opportunity to explore some of these ideas and assumptions, but I underestimated the power of these discourses to resist interruption even when they are put in the spotlight.



I worked with a group of exceptionally bright, motivated pre-service teachers who were eager to become good teachers but unconvinced that a university classroom was the best place to pursue that aim. They were willing to openly discuss their experiences in schools, both good and bad, but there was a (sometimes passionately) expressed consensus that the only point in doing so was to learn how to reduce or eliminate future challenges. The dominance of "the training discourse" (Moore, 2004, p. 75) led to an abundance of *how* questions and a marked disinterest in *why* questions, unless, of course, a deeper understanding of *why* would lead directly to a plan for *how*.

In reflecting on my own teacher education process, I remembered well the sense of urgency which fuels those *how* questions. However, drawing on Biesta's (2014a) notion of "*educational virtuosity*, that is, [...] the embodied ability to make wise educational judgments about what is [...] educationally desirable" (p. 12), I chose to focus on modelling my own decision-making in the moment-by-moment life of the classroom rather than attempting to provide the "neatly packaged advice" (Moore, 2004, p. 11) the students wanted. For example, when I noted that students nearly always chose to engage with those in their own specializations (such as English Language Arts, Biology, Physical Education, and so on), I pointed this out, talked through the benefits and drawbacks of allowing students to continue to work in the same groups, and explained why I thought it would be "educationally desirable" to periodically ask them to discuss their experiences and questions with others from different specializations.

Despite their regularly expressed frustrations, the work the students produced together was creative, insightful, even playful. I was cautiously optimistic that students were becoming more open to other discourses regarding good teaching and learning. However, on the last day of class, I was once again reminded of the tenacious hold of the technical discourse. I opened the lovely card presented by the class only to read comment after comment thanking me for all the "tips and tricks" I had shared over the term. While I had *thought* I was challenging the very notion of a universal discourse of good teaching by externally modelling the kind of contextual, internal dialogue by which teachers attempt to make "wise educational judgments" (Biesta, 2014a, p. 12), the technical discourse continued to act as a filter through which these students heard me. To them, it seemed that I had simply been passing along "tips and tricks" that they could add to their teaching "toolkits." Their appreciation was sincerely given and gratefully received, but their feedback has challenged me to continue to find ways to interrupt the discourse of teaching as merely a set of skills in order to more fully support pre-service teachers in *becoming* good teachers.

### Third Movement: Listening Circles in a Heartful

#### *Pedagogy of Aokakio'siit*

As a new instructor in teacher education, I was welcomed into the curriculum team through collaborative dialogues which began with the notion of good "judgment rather than recipes" (Biesta, 2014b, p. 137). This sense of freedom and trust in instructors' professional judgment

opened up spaces for small, risky ventures aimed at supporting reflection and community in my section of CII. I had previously participated in a listening circle led by Elder Bob Cardinal of the Enoch Nation, Alberta who encouraged us to carry the practice into our own communities and classrooms in ways that worked for us. In this five-week intensive course, we undertook three listening circles based on the Blackfoot notion of *aokakio'siit* (being wisely aware). Each listening circle was generally guided by one of three curriculum questions rooted in time and place: "Where have I been?", whereby student teachers reflected on their semester 3 practicum experiences; "Where am I?", whereby they considered how their thinking was evolving from semester three to semester four; and "Where am I going?", whereby they looked forward to entering the teaching profession.

When student teachers are oriented towards a highly talkative, competitive and technical focus in classrooms, the ability to listen to others often gets overshadowed as students compete for marks and attention, facing off in critical debate, and "successful exploitation" (Pinar, 2012, p. 39) of the educational system. Many of my semester four students expressed a multitude of concerns, including terror at the prospect of becoming professionals responsible for children's learning, a sense of disconnect between theory and practice, and finally, a feeling of being overwhelmingly unprepared for the work that lay ahead.

Dr. Dwayne Donald (2014), Papaschase Cree curriculum studies scholar at the University of Alberta argues for a shift in priorities. He reminds us that the decolonizing process of educational change comes

through the stories that emerge in an intergenerational relationship, and that “in being patient with ourselves, we may get to know one another again” (Personal Communication, February 28, 2014). In implementing Indigenous listening circles, I hoped to slow things down a little bit, to allow spaces for the cultivation of judgment and wisdom through *aokakio’siit*. I hoped that engaging in the deep, virtuous act of listening carefully to others might in turn open up spaces for them to reflect on their own experiences as emerging teachers.

I decided to lead the opening prayers with either silence or guided meditations, framed by grounding quotes from scholars and spiritual leaders from a variety of traditions. I asked a student authorized in leading Blackfoot ceremonies to close the circles with prayers. I chose an aggregate stone as our talking object. With mottled patches of chunky pink, spotted greens, swirling brown and smooth sandy beige, this stone was symbolic of our group’s diverse stories, forged together in overlapping patterns, not blended in perfect unity, but rather juxtaposed in multi-vocal exchanges of pattern and combined colours.

Parker Palmer (1998/2007) notes that good teaching evokes and invites community through identity and integrity, which are formed in the heart: “The connections made by good teachers are not held in their methods but in their hearts – meaning *heart* in its ancient sense, as the place where intellect and emotion and spirit and will converge in the human self” (p. 11). I tried these listening circles knowing that they were highly vulnerable, emotional and time-consuming, yet potentially rewarding in a teacher education oriented towards “the formation of the

whole person” (Biesta, 2014b, p. 135). Being relational and building relationships is not a technique that can be taught; it is a way of being in the world to which each teacher must come in her or his own way (Elder Bob Cardinal, Personal Communication, September 28, 2014). There is no guarantee that our attempts at building better relations in our classrooms will be successful. However, some students remarked that this class had helped them to survive their fourth semester, while others noted that there was an unusual sense of community in our class that they hoped to cultivate in their own future classrooms. In implementing the listening circles, with this shift in emphasis from talking with their heads to listening with their hearts, I hoped to offer one possible way for my students to get to know one another again.

#### Fourth Movement: Reflection and Change –

##### Looking Backwards to Move Forward

Walking along the corridor to my class, the smell of freshly made waffles drifted towards me. It was the last day of class, and my group of pre-service teachers were celebrating with a waffle party. As we were poignantly reflecting on our weeks together, it was difficult to connect the end to the beginning. Although this was the third time I had taught CII, the course curriculum had undergone a fundamental reconceptualization, buttressing the fact that teacher education changes along with changes in society (Smith, 1999). This change also occurred within me as an educator, for I had previously felt that the question of how to teach – that is, of methods – held the highest priority. However,

over the course of these five weeks, a new question emerged: How might we educate pre-service teachers to be ready for the challenges of a 21<sup>st</sup> century classroom, a classroom constantly in flux, a classroom very different from the one we once inhabited (McEwen, 2008)?

In order to address this new question, our class worked towards understanding the reasons why we teach in the ways that we do. We started by systematically and critically looking backwards into the student-teachers' teaching experiences during their practicum. Through conversations which sought to create links between their own experiences and the expectations for the knowledge, skills and attributes of beginning teachers set out by Alberta Education, they shared their joys, dismays and triumphs. The pre-service teachers became conscious of the connections between their own approaches to teaching and learning and to the ways they had been taught, to their experiences growing up, and to the ways in which their current partner teachers work. As we struggled to locate the best ways in which to teach, we collectively asked how we might engage in constant renewal and continuous improvement.

By building this intentional reflection into CII, I hoped to challenge the belief that adopting the 'status-quo' is the only way for new teachers to become integrated in their schools. To ensure that they were equipped with the tools for constant renewal, tools with which they would continue to build their practice, we explored two models of reflection: Kolb's (2014) Experiential Learning Cycle, and Action Research (Mills, 2007), which includes a form of systematic inquiry aimed at improving

students' learning outcomes. Using case studies, we explored how reflection plays a significant role in disrupting accepted norms. Beyer (1984) cautions that the new and inexperienced teacher might feel obliged to engage in the existing culture of practice within the school in an effort to be accepted. Exposing my pre-service teachers to the idea that they could resist the "dangers of uncritical acceptance" (p.37), created a professional community forged with the conviction that change is possible. For both myself as an instructor and for the pre-service teachers with whom I worked, looking backwards allowed us to move forward in constant renewal and improvement in our practice.

### Fifth Movement: Re-enlivening Relationships

#### Through Ecopedagogy

*Understanding ecological interdependence means understanding relationships. It requires the shifts of perception that are characteristic of systems thinking – from the parts to the whole, from objects to relationships, from contents to patterns. A sustainable human community is aware of the multiple relationships among its members. Nourishing the community means nourishing those relationships.*

Fritjof Capra, 1996

*Re-enlivening required.* In the depths of winter, two-thirds of the way through their final set of courses, about to embark on their final practicum and simultaneously competing in their applications for future

employment, the in-transition pre-service student teachers in my particular section of CII were experiencing an anxious disconnect with both each other and this course. Could they endure yet another permutation of group work, cross-curricular unit planning, and mixed media presentation? Yes, and they would, of course, excel at doing so once again. But were they truly engaged during this midwinter slump? Were they really reimagining the possibilities for what might lie ahead in their own future classrooms and professional collaborations? Not quite. I was thus faced with Capra's (1996) challenge of finding ways to nourish the relationships within the community of our current shared classroom. How might I, as a socioecological educator, bring my place-based practice to bear on such requisite re-enlivening?

Sobel's (2004) widely accepted definition of place-based education, "the process of using the local community and environment as a starting point to teach concepts ... across the curriculum" (p. 7), incorporates a reciprocal understanding of the environment within the classroom community. In discussing the importance of ecological thinking, Gruenewald (2003a) calls for a synthesis of critical pedagogy and place-based education into a "critical pedagogy of place." He suggests this "must embrace the experience of being human in connection [with] others and with the world of nature" (p. 6), and asserts that "developing a critical pedagogy of place means challenging each other to read the texts of our own lives and to ask constantly what needs to be transformed and what needs to be conserved" (p. 10). In



elaborating on the pedagogical and institutional challenges to place-based education, Gruenewald (2003b) further states that:

The point of becoming more conscious of places in education is to extend our notions of pedagogy and accountability outward toward places. Thus extended, pedagogy becomes more relevant to the lived experience of students and teachers, and accountability is reconceptualised so that places matter to educators, students, and citizens in tangible ways. (p. 620)

And so, in order to consciously address *place* both inward (within our classroom) and outward (within the curriculum), I set a revised final task for my CII students.

*You're hired!* The now "former" student teachers divided themselves into three groups of seven or eight teachers, incorporating as much diversity of expertise as possible, to establish brand new simulated schools somewhere in Alberta. Each "staff" was to collaboratively reimagine and critically examine how an Arts & Humanities-orientation might enrich, invigorate, and/or stimulate their entire school, within and across grades and subject matter, and within individual lessons in any given classroom – *and* how their school might be engaged in its setting and wider community. As well, each teacher was to draft a personal teaching statement and reflect on how it may manifest itself in the classroom and in the school community.

Although prefaced by the tentative circlings of open-ended tasks, an animated creativity and respectful professionalism was soon palpable

within each of the three staffs. One school emerged in a multiethnic urban prairie setting, focused on a student-centered learning community that welcomes diversity, home cultures, and language-integration. Another arose in the rural forested foothills as an academy of excellence and sustainability, with interesting non-sequential blended grade pairings. The other, a bilingual school, developed in a township nestled in a valley within the front ranges of the Rockies and incorporated weekly full day outdoor learning experiences. Each school team then presented their ideas – replete with missions and visions, school newsletters, websites, and brochures, encompassing unit and detailed lesson plans, sustainable practices and community engagements, and myriad supporting artifacts – to their peers and the public during an engaging, influential, and celebratory interactive fair and roundtable session.

In each case, the connection between place and pedagogy led to both broadening and deepening insights into the Alberta Program of Studies and involved a full circle of CII's foundational tasks of individual reflection, inquiry-based pedagogy, and design thinking. These formative pre-service teachers were transformed as they worked collaboratively through a place-based Arts & Humanities lens; their confidence and camaraderie expanded significantly through responsive reflection and the recursive coursings of *currere*, allowing them to re-connect to themselves and others, and to places within classrooms, curricula and community.

Sixth Movement: Finding Resonance – Greek Gods,  
Bat Caves, and Twinkling Constellations

I remember poignantly, as a first-year teacher, the moment when I turned the corner from laboriously *trying to teach* to *becoming a teacher* – inspired by the realization that curriculum is brought to life by its connection to individual students. Once I began to see that topics as seemingly dissonant as Greek gods and goddesses, bat caves, and the twinkling constellations of the night sky could all be woven into a tapestry of understanding and experiences, I was able to teach in ways that resonated deeply with the individual lives and meanings create by my students. This understanding of living knowledge and inspired curriculum building has fed a life-long passion in a field that has often been more concerned with providing segregated *deliverables* than on forging “stronger links between knowing the world and living creatively in it” (Palmer, Zajonc, & Scribner, 2010, p. 3).

Taking on the task of reimagining CII with the infusion of design thinking practices was the perfect opportunity to assist students in bringing together several disciplines that, at the heart of it all, included developing “human beings in the fullest sense...responsible heirs and members of the human culture” (Berry, 1987, p. 77). I was excited that the notion of empathy building, inherent in the design thinking process, held the potential for creating a through-line of understanding and meaning from the disciplines straight to the students' own hearts. The memories of Greek gods, bats, and night stars from an earlier time kicked into high gear as I set forth developing learning experiences for

my pre-service teachers – who had backgrounds in a variety of subject specializations and were mostly confined within the grasp of technical knowledge that had once held me. At the beginning of the course, a student shared that one of his main pedagogical goals was to learn how to write more comprehensive physics notes on the whiteboard. I smiled outwardly, swore inwardly, and told him we were going to have much more fun than that.

Thus, our classroom was transformed into a community of practice that integrated the foremost mindsets of the humanities – human centeredness, empathy, process, action, and collaboration (Carroll et al., 2010) – into a wide variety of curricular disciplines. Tables full of shoe boxes, papers, ribbon, wood pieces, glue, Styrofoam, nails, and other creativity-supporting delights greeted students daily as groups led their peers through a series of design thinking activities which would allow them to learn the principles and steps of the process while also flexing their ability to question, create, and care. Comments from students ranged from “This is fun!” to “This is really hard...I have never thought this way before.” I kept my eye on the young physics teacher. He was consistently engaged and displayed a wonderfully creative mind that seemed obviously more stimulated by design thinking than by learning how to write good whiteboard notes.

Later in the course, students were tasked with creating unit plans that not only helped them hone their interdisciplinary planning skills from a previous course, but also integrated the principles and practices of design thinking. Threads of empathy, caring, and other humane-

centered themes were apparent in every interdisciplinary plan, and their presentations to their peers were followed with ongoing requests for sharing of their inspiring work.

This inquiry incorporated multi-dimensional experiences that better prepared my students and also helped me to contribute to one of the essential purposes of post-secondary education which is to help students “learn who they are, to search for a larger purpose of their lives, and to leave college as a better human being” (Lewis, 2007, p. xv). My student teachers learned how to reflect upon and engage their own and others’ humanity – thus preparing them to do the same for their future students as they have their own encounters with Greek gods, bat caves, and the twinkling constellations in the night sky.

### Finale: Heeding the Echoes of Renewal

*...to be educated is to be ever open to the call of what it is to be deeply human,  
and heeding the call to walk with others in life's ventures.*

Ted Aoki, 2015

One of the central curriculum questions in these polysemous movements was how we as teacher educators might interrupt the dominant educational discourses of management, technical knowledge, and outcomes-based accountability (Pinar, 2012), in favour of more imaginative, expansive and generative curricular conversations. The design thinking principles of wonderment, empathy and interdisciplinary thinking allowed each instructor to bring her or his

unique voice to creating the conditions of developing practical wisdom. This practical wisdom requires not only technical know-how but also a deeper sensitivity and responsiveness towards the particularities of communities and circumstances.

As we reimagined the CII course through design thinking principles, curriculum scholars such as Arendt, Pinar and Aoki helped us to remain mindful of the challenges and possibilities inherent in an emergent and generative approach to curriculum. The movements presented in this piece represented the multivocal nature of a lived curriculum – from the power of self-reflection and collective action, to meeting challenges and resistance with courage, to listening with heart to people and places, and to responding with joy and hope in the face of our place and circumstances.

Each individual movement gives voice to the echoes that linger long after the official coursework is complete. As a whole, these voices bear witness to our individual and collective efforts to love the world and our children as we join together in a chorus of imaginative curriculum renewal.

## References

- Aoki, T. (2015). Discerning truths dwelling in the heart of humanity.  
Retrieved from <http://www.lifewriting.ca/lifewriters/mentors/ted-aoki/>
- Arendt, H. (2004). *Between past and future: Eight exercises in political thought*. New York, NY: Penguin.
- Biesta, G. (2014a). How does a competent teacher become a good teacher? On judgement, wisdom and virtuosity in teaching and teacher education. In R. Heilbronn & L. Foreman-Peck (Eds.), *Philosophical perspectives on the future of teacher education* (pp. 1–14). Oxford, UK: Wiley Blackwell.
- Biesta, G. (2014b). *The beautiful risk of education*. Boulder, CO: Paradigm Publishers.
- Berry, W. (1987). *Home Economics*. San Francisco, CA: North Point Press.
- Beyer, L.E. (1984). Field experience, ideology and the development of critical reflectivity. *Journal of Teacher Education*, 35(3), 36–41.
- Capra, F. (1996). *The web of life*. New York, NY: Anchor Books.
- Carroll, M., Goldman, S., Britos, L., Koh, J., Royalty, A., & Hornstein, M. (2010). Destination, imagination, and the fires within: Design thinking in the middle school classroom. *JADE*, 29(1), 37–53.
- Dunne, J. (1997). *Back to the rough ground: Practical judgment and the lure of technique*. South Bend, IN: University of Notre Dame Press.

- Friesen, S., & Jardine, D. (2009). On field(ing) knowledge. In S. Goodchild & B. Sriraman (Eds.), *Relatively and philosophically e[ar]nest: Festschrifte in honour of Paul Ernest's 65th birthday* (pp. 147–172). Charlotte, NC: Information Age Publishing.
- Government of Alberta. (2013). *Inspiring Education Policy Framework*. Retrieved From <http://education.alberta.ca/admin/technology/policyframework.aspx>.
- Gruenewald, D. (2003a). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32(4), 3–12.
- Gruenewald, D. (2003b). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40(3), 619–654.
- Kolb, D.A. (2014). *Experiential learning: Experience as the source of learning and development* (2<sup>nd</sup> ed). Upper Saddle River, NJ: Pearson Education Inc.
- Lewis, H. (2007). *Excellence without a soul: Does liberal education have a future?* New York, NY: Public Affairs.
- McEwen, B. (2008). Editorial: Preparing teachers for the 21st century classroom. *Delta Pi Epsilon Journal*, 50(1), 1–3.
- Mills, G. (2007). *Action research: A guide for the teacher researcher* (3<sup>rd</sup> Ed.). Upper Saddle River, NJ: Pearson.
- Moore, A. (2004). *The good teacher: Dominant discourses in teaching and teacher education*. London, UK: Falmer Press.



- Osberg, D., & Biesta, G. (2008). The emergent curriculum: Navigating a complex course between unguided learning and planned enculturation. *Journal of Curriculum Studies*, 40(3), 313–328.
- Palmer, P.J. (1998/2007). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco, CA: Josey-Bass.
- Palmer, P. J., Zajonc, A., & Scribner, M. (2010). *The heart of higher education: A call to renewal*. San Francisco, CA: Jossey-Bass.
- Pinar, W. F. (2012). *What is curriculum theory?* New York, NY: Taylor & Francis.
- RSA. (2012). Support teachers to develop their own school curriculum. *Royal Society for the Encouragement of the Arts, Manufacture and Commerce*. Retrieved from <https://www.thersa.org/about-us/media/2012/12/support-teachers-to-develop-their-own-school-curriculum/>.
- Smith, D. G. (1999). *Pedagon: Interdisciplinary essays in the human sciences, pedagogy and culture*. New York, NY: Peter Lang Publishing, Inc.
- Sobel, D. (2004). *Place-based education: Connecting classrooms and communities*. Great Barrington, MA: The Orion Society.
- Whitehead, A. N. (1929). *The aims of education and other essays*. New York, NY: Macmillan.