

Educative Spaces Full of Potential: Kairos Moments and Quantum Leaps

Nelia Evans and Cher Hill 

Volume 24, Number 2, 2024

URI: <https://id.erudit.org/iderudit/1111686ar>

DOI: <https://doi.org/10.33524/cjar.v24i2.704>

[See table of contents](#)

Publisher(s)

Canadian Association of Action Research in Education

ISSN

1925-7147 (digital)

[Explore this journal](#)

Cite this article

Evans, N. & Hill, C. (2024). Educative Spaces Full of Potential: Kairos Moments and Quantum Leaps. *The Canadian Journal of Action Research*, 24(2), 3–17.
<https://doi.org/10.33524/cjar.v24i2.704>

Article abstract

In this paper I share stories about beautifully complex and novel pathways for learners on the margins within my under-resourced Grade 2 community school classroom. I challenged practices of schooling that produced static understanding of children, and ones in which they were compared to the average, by embracing kairos moments. Kairos moments are distinct spaces full of potential that ebb and flow in unexpected ways and may lead to unanticipated outcomes. Inspired by new materialist scholarship, I worked at the intersection of theory and practice to go beyond common inclusive and self-regulatory educational strategies, to focus on the complex relationships involving children and their material contexts. Through the story of the magic pencil and the story of the invisible string, I illuminate the infinite potential within pedagogical spaces.

EDUCATIVE SPACES FULL OF POTENTIAL: KAIROS MOMENTS AND QUANTUM LEAPS

Nelia Evans

Simon Fraser University

Cher Hill

Simon Fraser University

ABSTRACT

In this paper I share stories about beautifully complex and novel pathways for learners on the margins within my under-resourced Grade 2 community school classroom. I challenged practices of schooling that produced static understanding of children, and ones in which they were compared to the average, by embracing kairos moments. Kairos moments are distinct spaces full of potential that ebb and flow in unexpected ways and may lead to unanticipated outcomes. Inspired by new materialist scholarship, I worked at the intersection of theory and practice to go beyond common inclusive and self-regulatory educational strategies, to focus on the complex relationships involving children and their material contexts. Through the story of the magic pencil and the story of the invisible string, I illuminate the infinite potential within pedagogical spaces.

KEY WORDS: First-person action research; Diffractive practice; Kairos moments; Learners on the margins; Rhizomatic learning

INTRODUCTION

For years I have been at odds with my own teaching practices. I have been caught in an internal struggle between how I want to teach and how I am required to teach according to provincial mandates. Although the redesigned curriculum in British Columbia (BC) is more student-centred and encourages various imaginative and open modalities of learning such

as purposeful play and the arts (BC Ministry of Education, 2022a), practices of schooling typically remain tied to static and essentialized understanding of children, as well as linear and developmental models of assessment. Learning designations and standardized assessment rubrics contribute to what Deleuze and Guattari (1987) would refer to as molar lines, forces that regulate movement in rigid ways that foreclose possibilities. Within my teaching and learning practice, I am working within, and “despite,” the system (Clandinin & Connelly, 1998, p. 154).

The redesigned curriculum in BC, which was fully implemented across all grades by the 2019/2020 school year, encourages a shift from discrete learning outcomes to a dominant focus on cross-curricular overarching and interrelated competencies (communication, thinking, and personal and social capacities). For example, along with the acquisition of disciplinary knowledge, the core competencies encourage affective, embodied, and personally relevant learning, such as making connections to find “satisfaction, purpose and joy,” utilizing “thoughts and feelings that arise from the subconscious and unconscious mind and from embodied cognition” to create new understandings, and supporting students to develop a sense of self that enables them to “thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world” (BC Ministry of Education, 2022a). These holistic, visceral, and affirming goals are often at odds with typical practices of schooling, such as grade-based expectations for literacy and numeracy, static reporting systems that fail to recognize the process and journey of learning, and classroom routines that do not account for the trauma many children carry as a result of racism, poverty, and bullying. I appreciate the term “planning paradox” — the “tension for teachers between the desire for children to feel a play-like freedom within more formal school-based learning” (Briggs & Hansen, 2012, p. ix) — as it eloquently depicts this proverbial rock and hard place.

Teaching in an under-resourced community school is full of challenges, and it is these dissonant encounters between curriculum as envisioned and curriculum as enacted (Aoki, 1993) that ignited the curiosity within me to seek out various ways to enable new pathways for learners, particularly for those who experience marginalization within school. Through inquiry into my own practice, I embraced the concept of *kairos* time (Van Manen, 2015), moments pregnant with potentiality that can change everything, shifting the rhythm of learning within classrooms. Inspired by new materialist theories (Braidotti, 2013; Barad, 2007), I experimented with playful diffractive pedagogies, inviting the material world to interfere with teaching while allowing learning to enfold rhizomatically. The classroom stories that I share, including the story of the magic pencil and the story of the invisible string, are illustrations of sacred moments that can alter educational practice and enable quantum leaps and result in beautifully complex and novel pathways for learners, particularly those who do not find success within the typical structures of schooling.

THEORETICAL FRAMEWORK

This research is theoretically informed by new materialist theories, an exciting body of scholarship that offers new ways of thinking about the infinite potential within educative spaces. While this body of scholarship is diverse, a common premise is the relational

constitution of teaching and learning, drawing attention to connections between and among bodies, and the entangled agency of humans with the things around us (Braidotti, 2013; Barad, 2007). Consequently new materialist scholars focus on the embeddedness of humans within our material worlds, rather than the individual, which has commonly been the focus of teaching and learning. A key concept within this body of scholarship is the assemblage, which is not a thing but a thing in the making (Jackson & Mazzei, 2012). As Colebrook (2002) explains, “All life is a process of connection and interaction. Any body or thing is the outcome of a process of connections” (p. xx). Through this theoretical lens, students and teachers are not viewed as autonomous actors but rather are “co-produced through a constellation of elements” (Strom & Martin, 2017, p. 7).

Central to my practice as an educator is the concept of kairos time, a framework that disrupts linear organizations of schooling and development notions of learning. Kairos moments are charged relational spaces that can allow for the emergence of something new. It was the words of Max Van Manen that awakened my being to such sacred moments. He writes, “Kairos moments are pure, perfect, unpredictable and uncontrollable moments that possess possibility” (Van Manen, 2015, p. 51-52). Unlike chronos time, that advances quantitatively according to the clock or calendar, kairos time is a void and yet also expansive, and evolves in qualitatively different ways. It has been described as an “ah ha” moment, a state of flow, and a serendipitous experience. It is within these beautifully pure and perfect, unpredictable, and uncontrollable moments that new possibilities for knowing, learning, and becoming can emerge for students. Within chronos time, children’s learning is understood as progressing in linear, sequential, and measurable ways; however, within kairos time, learning advances as a quantum leap, jumping from one place to another. Kairos moments hold opportunities for deeper connection and new possibilities, yet if not given time and space, these moments can be fleeting and vapid.

Within kairos, learning is unpredictable and can unfold rhizomatically. A rhizome is a mass of roots extending and constantly evolving as it re-turns (Barad, 2014). Deleuze and Guattari (1987) write, “unlike trees or their roots, the rhizome connects any point to any other point, and its traits are not necessarily linked to traits of the same nature” (p. 21). This visual of the rhizome as an entangled mess of roots that grows indeterminately, challenges the traditional linear and sequential curriculum. Just as Deleuze and Guattari (1987) encouraged rhizomatic thinking, I as a teacher encouraged rhizomatic learning. Rhizomatic learning is fluid, emergent, and ever evolving. It is composed of “directions in motion” (Deleuze & Guattari, 1987, p. 21) and stretches beyond the linearity of traditional systems and is constantly regenerating as unexpected offshoots of learning are birthed. In other words, this linearity of tradition or the standardized average is challenged by rhizomatic learning. As Todd Rose (2016) advocates, it is time to end the notion of one-dimensional thinking based on the concrete concept of the average. He speaks to the jagged principle which “holds that we cannot apply one-dimensional thinking to understand something that is complex and jagged” (Rose, 2016, p. 82). The word jagged brings about feelings of dissonance and disorder. Instead of shying away from seemingly erroneous or flawed “data,” I move toward it with curiosity and embrace the jagged edges as potential. As I continued to read and write in this world between and within, I was

constantly shedding the one-dimensional thinking and “zooming out” until I saw the jaggedness of the beautiful rhizomatic mess of the multiplicitous moment.

Embracing kairos moments (Van Manen, 2015) in which learning unfolds rhizomatically, became my goal. I longed to disrupt the molar lines (Deleuze & Guattari, 1987) that engulfed my students and I in the reproduction of schooling as a linear process, producing hierarchically ordered outcomes. Together we explored the cracks and ruptures inherent within the more malleable molecular lines (Deleuze & Guattari, 1987) that had potential to create more inclusive spaces for teaching and learning and would lead to lines of flight (Deleuze & Guattari, 1987) where something new may occur.

METHODOLOGY

Methodologically this first-person action research (Adams, 2014) project is situated under the umbrella of practitioner-inquiry (Cochran-Smith & Lytle, 2009), which involves the intentional, disciplined, and sustained study of one’s own teaching practice. Practitioner inquiry encompasses various forms of professional learning, empowering educators as producers (rather than merely consumers) of knowledge about teaching and learning (Cochran-Smith & Lytle, 2009). Within first-person action research, knowing and doing is intertwined, and the professional context becomes a site for research as practitioners give “conscious attention to their intentions, strategies and behaviour and the effects of their action on themselves and their situation” (Adams, 2014, p. 349). Professional practice research aims to be emancipatory in nature and contribute to improved practice, meaningful change in school communities, and/or social transformation (Adams, 2014; Cochran-Smith & Lytle, 2007; Groundwater-Smith & Mockler, 2007).

Practitioner-inquirers work at the very intersection of theory and practice, informed by both experiential and conceptual knowledge. In this space, scholarship is enlivened, extended, and contested (Brookfield, 2017). Central to this research project is the scholarship of application (Ream, et al., 2015), involving the translation of theoretical and conceptual knowledge into everyday teaching and learning practices. This embodiment of ideological and ethical commitments is challenging to enact (Stenhouse, 1968), as it exceeds “thinking with theory” (Jackson & Mezzei, 2012) to involve *doing* with theory.

This inquiry unfolded within the context of my Grade 2 class, comprised of 22 students. Having completed a graduate diploma in *Self-Regulation and Social Emotional Wellness in the Classroom*, I was given specific students who were perceived as struggling with emotional regulation, learning differences, as well as anxiety. Traditional forms of assessment requiring pencil and paper often did not address the needs of these and many other students within my classroom. For months I had researched and reflected on how I could best respond to two particular challenges within my teaching practice. One involved a seemingly disengaged student who struggled with written output and was not meeting the Grade 2 standards for written communication. The other involved a student who had high anxiety and little self-confidence and spent much of the previous school year sitting in the hallway refusing to engage. Much like a hamster in his spinning ball, I was running as fast as I could but was not getting anywhere. No matter how much I reflected or surmised,

every trail led to the same result, which was disengagement and disconnection. Both students experienced marginalization within our classroom community and had not fully connected to others within the class outside of their relationship with me. I surmised that both were creative and full of amazing ideas, yet struggled to outwardly demonstrate their inventive understandings within traditional forms and structures of schooling. How as an educator would I unlock such puzzling codes that are not answered through typical classroom pedagogies and assessment practices? This is where I realized I had to look beyond what I could see.

I have been deeply impacted by Schön's (1983) notion of reflective practice. Reflection seemed to be the highest form of teacher knowledge when I studied for my Bachelor's Degree. Yet, as Barad (2007) posits, a reflection simply returns nothing more than a static image of the original; it does not capture what is not seen. Barad (2007) suggests diffraction as a metaphor for inquiry. "Diffraction ... as a metaphor for inquiry involves attending to difference, to patterns of interference, and the effects of difference-making practices. Diffraction creates something ontologically new, breaking out of the cyclical, inductive realm of reflection" (Barad, 2007, p. 1). Diffractive practice involves inviting interference into teaching and learning to create openings for new possibilities, and continuously reconfigure life in schools (Hill, 2017). In this regard, it is consistent with *kairos* time as diffractive patterns produce moments that are qualitatively different than the preceding one (Murriss & Kohan, 2020). Within these patterns, we can identify where change occurs. I embraced diffraction as a method for both teaching and research that I hoped could disrupt the one dimensional thinking that was so deeply ingrained within me. Like a butterfly tightly wound in its chrysalis, I had to make bold moves in order to break free of the tight clasp of past thinking.

I kept a log that journaled my field notes, and I was sensitive to notice the important and often spontaneous learning moments as they occurred. I kept sticky note pads and pens in arms reach throughout the day to jot down important moments as they happened. This documentation itself became "a co-constitutive force, working with and upon" me, the researcher, as I worked *with* the data (Haraway, 2008, p. 18). Like Brown and Duguid (1991), I believe the key to ascertaining knowledge that revolutionizes my practice is understanding that this learning journey is about "becoming a practitioner" not solely learning "about practice" (p. 48). This idea of becoming a practitioner as opposed to merely learning about practice validates the process of my inquiry, not simply the result.

Daily, I would set the intention of being mindfully aware of *kairos* moments that opened up ontological spaces, creating the opportunity for rhizomatic unfoldings. Breaking free from one dimensional thinking and embracing the jaggedness of the *kairos* moment took great intention. This intentionality acted as an anchor, grounding me in my work. As David and Sheth (2009) state:

Casting an intention over the day is like throwing a ship's anchor into the sea. Once the anchor is lodged in the sea floor, the ship maintains its general location even if the wind and tides alter its surface position. Likewise, an intention

positions your mind to hold a particular orientation during the day, as you shift between activities. (p. 19)

Being responsive to kairos moments and rhizomatic unfoldings required carving out time to rejuvenate my soul. Taking this time to slow down and create a quiet space to meditate filled my heart with quiet energy needed to take on the whirlwind of tasks at hand. During these spaces of stillness, I would prepare myself to be mindful to the potential kairos moments that were on the horizon so that I was awake and ready to recognize and support lines of flight (Deleuze & Guattari, 1987) when they happened, and take action when they appeared. This reminded me of Gleick's (2015) take on Chaos Theory and the red spot of Jupiter. "The spot is a self-organizing system, created and regulated by the same nonlinear twists that create the unpredictable turmoil around it. It is stable chaos" (p. 55). This quiet space allowed me to center and ground myself within the chaos, much akin to the red spot of Jupiter. I was, "this large-scale spot, happy as a clam amid the small-scale chaotic flow" and was able to use the paradox of stillness in the chaotic flow to soak up "energy like a sponge" (p. 55). The following classroom examples were born out of the desire to invite two learners who had been on the periphery to join our classroom rhizome. These stories stepped out of chronos time and into the kairos moment which invited diffractive learning to emerge. The jaggedness of the kairos moments created a void between past and future, suspending the present and allowing for quantum leaps in this sacred in-between space. The following stories depict how following these lines of flight outside of chronos time and into the kairos realm unlocked those two students who were trapped within their own narratives.

STEPPING OUT OF CHRONOS TIME: KAIROS MOMENTS OF INSPIRATION AND CHANGE

The Story of Jewel and the Magic Pencil: The Circle Square Comparison

The standard of literary writing for Grade 2 according to the BC Performance Standards (2020) stated that by April, children were able to create a story that "has a beginning, middle, and end. It is easy to follow, includes story elements and features some story language" (p. 75). This was proving to be a problem for Jewel as we started the year with her taking an entire writing block to just write her name on the top of her page despite having beautiful penmanship! She was unable to sit long enough to write. She was constantly distracted despite my best efforts of teaching, modelling, scaffolds, headphones, standing and moving while writing, water breaks, movement breaks, and meditations/calm apps, etc. I reflected on the data I was collecting, looking for patterns and studying what the patterns might tell me. I researched good practice and implemented various strategies and yet, my arsenal was empty. I had to let go of the expectation that she would be able to write and take the initiative to sound out words independently like the other students. As my professor, Dr. Margaret MacDonald, said in our SFU master's class, Jewel was a circle that I was constantly comparing to a square.¹ As opposed to seeing her against herself, I was seeing her in comparison to a standard that she was not able to achieve, nor could that standard adequately represent her understanding and learning. I felt exhausted and no doubt, so did Jewel.

¹ Margaret MacDonald, Personal Communication, March 5, 2018.

Through the process of trial and error, I changed my stance from one in which I reflected on what *was visible*, to a new posture in which I became open to emerging connections, unfoldings, and possibilities (also see MacDonald et al, 2019). I chose to ‘zoom out’ far enough so that I could see the moments when Jewel came alive and was ready to learn and attended to the various bodies involved in these assemblages. This led to a turning point in this journey which allowed a new course to emerge. I started to carve out time to sit with Jewel at the beginning of the day by creating a soft start in my classroom which allowed for a few moments of my full attention. This is no easy feat for an educator who has twenty-plus other students to attend to, yet in doing so our connection grew and so did her resolve. I became more comfortable in the in-between space of reflection and diffraction. Through reflection I realized that the situations in which she was most centrally engaged included ones involving games, light-hearted fun, and sincere relationships. She did not do well with authoritative directions, nor could she handle more than two-step directions. She was lethargic in the morning, especially if she had not had breakfast. Offering her fruit or toast from the breakfast program seemed to help her emotional state. I continued to search for ways I could connect with Jewel and tried to ‘zoom out’ (and ‘zoom in’) to see beyond what I already saw and knew. I had to look critically at my own biases and assumptions. I was reminded of Brookfield’s (2017) stance on the potential merit of chipping away at hard-lined assumptions, notions and repetitive practices while constantly looking for the cracks that might lead to diffractive reflections. I hoped that in doing so, something ontologically new would arise rather than remaining in a stagnant non-effective norm. It was easy to fall back into the realm of the constant pull back to the here and now and forget the merit of the enormous amounts of entanglements beyond the present that were greatly impacting our rhizome of connectivity.

I wasn’t sure what I was looking for, but from the new materialist scholarship I had been reading, I began to see the more-than-human elements pop up all around me. I noticed how the hard navy plastic chairs caused students to constantly readjust. I heard how the recess bell startled the students from their engaged writing processes. I felt the sadness of a child who fought with her brother on the way to school. As more and more elements came to light, I saw one that seemed to “glow” (Maclure, 2013, p. 661). It was Jewel’s pencil. She was always fidgeting with a pencil. At times the pencil was sharpened down to the same size as the eraser top. Other times, her pencil was adorned with purple fur, or sparkly stickers. One thing was certain, she loved her pencils. On the way to gym, she would sneak a pencil in her hands, pockets or even her shoes! I recall an assembly, looking down the line of students noticing that the pencil was tucked in her hair. When returning from Learning Support Services she would come bounding in and the teacher would hand me yet another confiscated pencil. Through my reflective lens I saw that the pencil was a constant distraction as she would play with it but not write with it. She would have a pencil in her possession at most times of the day, which led to a puzzling thought: How ironic that a child who struggled with writing chose to embrace a pencil as a sort of security blanket or perhaps as an identity marker? Could the pencil be more than a writing utensil? Through the lens of diffraction, I couldn’t help but wonder if this pencil might be entangled within her becoming? This ‘ah-ha’ flash was a kairos moment for it led to new and exciting spaces

of learning. I started to think, and better yet, believe that this pencil was playing a critical role in this beautifully messy becoming. Normally, when students become so distracted by items, we as teachers remove the item. Yet if the effects of interferences can open up new possibilities (Barad, 2007), then by removing the interference (in this case the pencil) I would be damming up the potential of diffraction.

This understanding changed my perspective, for no longer did I see the pencil as a distractor, I now perceived it as a motivator — an enticing agential intra-active body (Bennett, 2010). The result was a powerful and pivotal line of flight that created a bond between Jewel, her pencil, and me. I was fully committed and knew she liked to have fun so the very next day, I pulled up a chair and said, “Hey Jewel wanna race to see who finishes their work first today?” “Oh yeah, Mrs. Evans!” “Ok then, but first let me ask you a question? What do you have here on your desk that may help get your ideas out on the page?” “Ummmm...my pencil?” she replied. “Oh ok, then your pencil is magic because it allows your thoughts to be seen. It lets me see your thoughts!” “Wooooow!” she whispered as a slow smile spread across her sweet wide-eyed face. “Let’s thank your pencil for the good work that it does. Let’s chant over it: ‘Do your best work pencil, do your best work!’” She giggled and tilted her head and squinted her eyes as if not quite sure. I repeated myself and whispered over her pencil. “Hi Jewel’s pencil! I am so glad you are her magic pencil and that you have the power to show me Jewel’s thoughts! I just want to encourage you, Jewel’s pencil, to do your BEST work pencil, do your BEST work! OK Jewel – it’s your turn now to whisper over the pencil!” Hesitantly, and with a giggle she leaned over and said, “Do your best work pencil, do your best work!” And for the first time in months, Jewel wrote her first entry.

The remainder of the year was full of giant leaps for Jewel, and for me as our learning was intertwined and caused me to constantly search for the hidden gems hiding just beyond the rational. The story of Jewel and the magic pencil as viewed through a post-human lens brings into question how students are taught and assessed, and what it means to teach. Standards are based on averages, and as mentioned previously, these standardized assessments are a one-dimensional snap-shot of beautifully complex multi-dimensional fluid beings. I was unable to fully detach from the traditional curricular expectations since report cards in my province are still reflective of content-based knowledge (at least at the time of writing) through traditional assessments and rubrics comparing students to the average. The changes, however, in the BC Curriculum did allow some leeway as the emphasis of the curriculum was becoming more competency based (see BC Ministry of Education, 2022a). As I leaned into the discomfort of swaying away from the traditional forms of teaching and assessing, new assemblages emerged as I interacted with the curriculum in novel ways, introducing play and the arts across all subject areas.

One specific example involved allowing children to record their story comprehension through creative play. While Jewel flourished in her re-tell adding creative and insightful add-ons, a child who could easily write a neat and comprehensive story review struggled with representing his learning through free play and video documentation. Most student videos were a few minutes in length, yet Jewel’s was nearly 23 minutes long! In one part of

the story re-tell, a main character sings a country song, which Jewel created on the spot. Watching this moment later with the Learning Services Teacher, brought us close to tears. The purity of her voice and the incredible creativity within was so beautifully showcased in this avenue of learning and assessment. This same child, who struggled to write and appeared below meeting expectations through traditional forms of learning and assessment, was able to display a copious amount of deep understanding. Changing the assemblage and intra-actions between children and the more-than human produced and opened the door to diverse outcomes and identities for all my students. Through such enigmatic places came exciting opportunities to move beyond reflection and into something ontologically new within my pedagogy and within myself. This complex and emergent practice created a dissonance. Yet it was through the struggle of the discord and the embracing of the interference that paradoxically led to harmony where circles were no longer compared to squares.

The Story of Leia and the Invisible String: Suspended Moments in Time and Space

The students and I often discussed the ways by which we love to learn, one of which was learning in the outdoors. Extending our learning to the outdoors and inviting the outdoors in, became a part of our regular practice. We welcomed the world around us and invited these more-than-human elements to connect to our ever-evolving classroom rhizome. For example, in our evaporation science lesson we felt the heat of the pavement with our palms and took a moment before starting our experiment to take a deep breath and connect that warmth to our hearts. We acknowledged the land was Stó:lō First Nation's territory. We created a connection that moved beyond our head knowledge and extended to our heart and sense of self. The heat of the sun and its effect on the pavement connected us to nature, ourselves and each other, allowing us to join these seemingly disconnected parts together as a whole. As we learned, we invited nature to become a part of us. This learning led to a line of flight to take a field trip to Stillwood Camp in the beautiful Fraser Valley, home of the Stó:lō Nation, the People of the River.

The day arrived, and the typical field trip excitement was in the air. The bell rang and the children and chaperones came in the building and the buzz of anticipation was electric which created a very different assemblage from our usual calm, soft start morning routine. One of my students was in tears as we were getting ready to leave the classroom in those final moments. Even though the bus was waiting, and the typical field trip energy was at its peak, I stopped and asked her what was wrong. Through tears, she said that she had never been this far from her dad or her home before. I assured her that although her dad couldn't come with us, his connection to her would stretch just like an invisible string and reminded her of the book, *The Invisible String* (Karst & Stevenson, 2000), that we read as a class to reinforce connections earlier in the year. The invisible string acted as a more-than-human agent that created a fold in time and space which allowed for the assurance this child needed to get on the bus. As Barad (2014) would say, "each bit of matter, each moment of time, each position in space is a multiplicity, a superposition/entanglement of (seemingly) disparate parts" (p. 178). A superposition is the ability of matter to occupy two spaces at once, to be "indeterminately here-there" (Barad, 2017, p. 65). In this example, the invisible string created a superposition which allowed her to connect to her father and her home

even though they were physically apart. This invisible string was able to cross time and space and brought a real feeling of closeness to this child and her father even though they were miles apart.

I invited her to sit with me and told her that I would take a photo of her on the bus and upload it to an online pedagogical documentation app so that her dad could see it right away. With that, she agreed, held my hand, and joined me as my bus seat partner. And so, the superposition of the online photo connection created another entanglement and a somewhat supernatural, material tie to her father and her home through spacetime mattering (Barad, 2014). For Barad (2014) space, time, and matter are intradependent and the here and now is entangled with the there and then. Through the interference of both the invisible string, and the app, a new entanglement was born. It is not to say that we altered the physical distance as we were still headed out of town, however, the tension of leaving was disrupted by the invisible string and the real time photo, which reached across physical time and space.

Once on the bus, the electric hum was palpable due to the assemblage of wriggling bodies constantly readjusting on the leathery seats, entwined with energetic and excited voices of students talking and singing a hodgepodge of classroom songs, and adults trying to remind students to stay seated. Although the energy and excitement was all around us, I could still feel the emotion and uncertainty coming from Leia on the bus seat. She was not wriggling; she was not looking for conversation nor song. She was still. Her father responded to her picture just as we were passing her home. Her countenance was flooded with relief and joy as we read his comment together. She found courage through the connection with her father and her home. It was as though he was there with her on the bus. This non-human element of an online photo and text-message type response, allowed for a real-life connection to transcend time and space in real time, becoming a crucial lifeline for this student.

As we were driving further and further away from the city, she would squeal in delight! "Look at the mountains! Look at the animals!" As the bus wound its way on Columbia Valley Road between mountain and lake, she looked at me with a quizzical brow and said, "Mrs. Evans...where is the land?" I returned her question with another question, "What do you mean where is the land?" She explained, "You know the land, the flat land, the grey stuff?" It took me a second, but then responded, "Honey, do you mean the road, the pavement, the cement?" "Yes, the land, the rest of the road...where is it?" The picturesque and winding drive up the mountain left little straight road ahead, and from her vantage point, she couldn't see the road. I gently responded. "Do you see the wall of dirt and trees to the left of us? Do you see the beautiful lake on the right? **THIS** is the land, sweet-heart. We built roads on the land. All around you, is the land. She responded with a simple, "oh" and nodded deep in thought. Through the entanglement with the invisible string and the communication with her dad, she flowed into other novel assemblages constituting Leia in new ways.

I was so thankful that I encouraged her to sit with me that morning. Had I told her to simply shake off the sad feelings, regulate her emotions, and sit with someone else I would have missed this beautiful *kairos* moment that led to a deep connection between herself and her father, which led to a sort of re-introduction and re-connection of this student to the land beyond pavement and finally led to a further and deeper connection between the two of us and the assemblage of our classroom community. These flashes of space, ebb and flow in a biological innateness that cannot be traced, replicated, or redone. These vibrant moments are an organic, active source system, regenerative in nature if given the opportunity to allow for the moment to come to fruition. In this juncture of sacred space, I allowed myself the freedom to break free from the busyness of the schedule of the day and follow where the moment was leading, thus allowing a re-volution of self of becoming-teacher. For Strom and Martin (2017) "*becoming-teacher* necessarily implicates not just the individual teacher, but all the elements, forces, bodies and ideas that make up the teaching-assemblage" (p. 8).

The intra-connection between the invisible string and technology that day between Leia, her father, the land, and myself created a stable assemblage from which learning grew rhizomatically. She began to extend from the assemblage of the field trip to the classroom. Particularly to the most challenging of academic tasks for her: reading. Through conversations with her previous teachers, I learned that her Grade 1 year was full of reluctance regarding reading. She would shy away from difficult tasks and would often shut down. Thankfully this assemblage that was borne out of the field trip was not a one and done. Rather it became a part of her as the roots started to shoot out from within. She began to believe she could do hard things. She started to blossom! This newfound love of learning extended again to her reading excitement at home and to all subject areas. As a class we were working on perseverance — the curriculum core competency goal of "I can persevere with challenging tasks" (BC Ministry of Education, 2022b) — and paired it with the First People's Principle that "learning takes patience and time" (First Nations Education Steering Committee, n.d.). The language of not giving up and seeing mistakes as stepping stones was becoming her natural inner and outer dialogue. She transformed from a girl who would shut down at the smallest challenge, to a warrior seeking out hard tasks, believing she could persevere with hard things.

DISCUSSION

As these stories have demonstrated, if we truly want to create spaces where all our students can thrive and find joy in learning, we need to move beyond standardized learning outcomes and developmental models of education, as well as human-centric understandings of individuals as essentialized beings with static "designations," such as anxiety or learning disabilities. When we "zoom out" to understand learners as beautifully complex, multi-dimensional, fluid, and relational beings who can unfold differently within unique assemblages, we create openings for all sort of possibilities to unfold within our classrooms. Guided by *kairos* time, which unfolds rhizomatically rather than linearly, and advances qualitatively rather than quantitatively, new possibilities for students emerge through inviting interference into our practice to diffract teaching and learning. Here inclusive teaching is guided not so much by deep knowledge of adaptive strategies, but

rather the ability to embrace complexity, engage relationality, and imagine education otherwise. As Kuby (2017) asserts, “As educational researchers, it is our response-ability to children, families, and our material world to better understand the realities, knowledge, and relationships being produced daily in the intra-actions of materials (human and non-human) and discourses” (p. 5). Moving beyond pedagogical strategies commonly used to support learners who are on the periphery of the classroom community involves intentionally preparing for nonlinear twists in our classrooms by centring ourselves and filling our hearts with quiet energy, paying attention, and playfully intervening from within. The story of the magic pencil and the invisible string demonstrate the power of sacred and unpredictable moments in relation to alter educational practice and enable quantum leaps, as well as beautifully complex and novel pathways for learners, particularly those who often do not find success within the typical structures of schooling. Each assemblage provides us as educators an opportunity to remake the world anew (Barad, 2007) and create more equitable, inclusive, and socially just spaces for teaching, learning, and transformation. ■

REFERENCES

- Adams, D. (2014). First-person action research. In D. Coghlan & M. Brydon-Miller (Eds.), *The SAGE Encyclopedia of Action Research* (1st ed.) (pp 349-353). SAGE Publications. <https://doi.org/10.4135/9781446294406>
- Aoki, T. T. (1993). Legitimizing lived curriculum: Towards a curricular landscape of multiplicity. *Journal of Curriculum & Supervision*, 8(3), 255-268.
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Barad, K. (2014). Diffracting diffraction: Cutting together-apart. *Parallax*, 20(3), 168-187. <https://doi.org/10.1080/13534645.2014.927623>
- Barad, K. (2017). Troubling time/s and ecologies of nothingness: Re-turning, remembering, and facing the incalculable. *New Formations: A Journal of Culture/Theory/Politics*, 92, 56-86. <https://doi.org/10.3898/NEWF:92.05.2017>
- Bennett, J. (2010). *Vibrant matter: A political ecology of things*. Duke University Press.
- BC Ministry of Education. (2022a). BC's Course Curriculum. <https://curriculum.gov.bc.ca/>
- BC Ministry of Education. (2022b). *Core Competencies*. BC's Curriculum. <https://curriculum.gov.bc.ca/competencies>
- BC Ministry of Education. (2009). BC performance standards. Writing. https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/performance-standards/writing_g2.pdf

- Braidotti, R. (2013). *The posthuman*. Polity Press.
- Briggs, M., & Hansen, A. (2012). *Play-based learning in the primary school*. Sage.
- Brookfield, S. (2017). *Becoming a critically reflective teacher*. Jossey-Bass.
- Brown, J., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), 40-57. <https://www.jstor.org/stable/2634938>
- Clandinin, D. J., & Connelly, F. M. (1998). Stories to live by: Narrative understandings of school reform. *Curriculum Inquiry*, 28(2), 149-164. <https://doi.org/10.1111/0362-6784.00082>
- Cochran-Smith, M., & Lytle, S. (2009). *Inquiry as stance: Practitioner research for the next generation*. Teacher College Press.
- Colebrook, C. (2002). *Understanding Deleuze*. Allen Unwin.
- David, D. S., & Sheth, S. (2009). *Mindful teaching & teaching mindfulness: A guide for anyone who teaches anything*. Wisdom Publications.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus*. Trans. Brian Massumi. University of Minnesota Press.
- First Nations Education Steering Committee. (n.d.). *First Peoples principles of learning*. <http://www.fnesc.ca/first-peoples-principles-of-learning>
- Gleick, J. (2015). *Chaos: Making a new science*. The Folio Society.
- Groundwater-Smith, S. & Mockler, N. (2007). Ethics in practitioner research: an issue of quality. *Research Papers in Education*, 22(2), 199–211. <https://doi.org/10.1080/02671520701296171>
- Haraway, D. (2008). *When species meet*. University of Minnesota Press.
- Hill, C. M. (2017). More-than-reflective practice: Becoming a diffractive practitioner. *Teacher Learning and Professional Development*, 2(1), 1-17. <https://journals/sfu.ca/tlpd/index.php/tlpd/article/view/28>
- Jackson, A. Y., & Mazzei, L. (2012). *Thinking with theory in qualitative research*. Routledge.
- Karst, P., & Stevenson, G. (2000). *The invisible string*. DeVorss Publications.

- Kuby, C. (2017). Why a paradigm shift of 'more than human ontologies' is needed: Putting to work poststructural and posthuman theories in writers' studio. *International Journal of Qualitative Studies in Education*, 1-20. <https://doi.org/10.1080/09518398.2017.1336803>
- MacDonald, M., Hill, C., Sinclair, N., Smythe, S. Toohey, K., & Dagenais, D. (2019) Pursuing relational and differential methodologies: From diffraction to monstrosity in in-service teacher education. In K. Nolan & J. Tupper (Ed.) *Social theory for teacher education research: Beyond the technical-rational*, (pp. 35-50). Bloomsbury.
- MacLure, Maggie. (2013). The Wonder of Data. *Cultural Studies ↔ Critical Methodologies*, 13(4), 228-232. <https://doi.org/10.1177/1532708613487863>
- Murris, K. & Kohan, W. (2020). Troubling troubled school time: Posthuman multiple temporalities. *International Journal of Qualitative Studies in Education*, 34, 7, 581-597. <https://doi.org/10.1080/09518398.2020.1771461>
- Ream, T. Braxton, J. M., Boyer, E. L, & Moser, D. (2015). *Scholarship reconsidered: Priorities of the professoriate*. Jossey-Bass.
- Rose, T. (2016). *The end of average: How to succeed in a world that values sameness*. Allen Lane.
- Schön, D. A. (1987). *Educating the reflective practitioner*. Jossey-Bass Publishers.
- Stenhouse, L. (1968). The humanities curriculum project. *Journal of Curriculum Studies* 1(1), 26-33.
- Strom, K. J. & Martin, A. D. (2017). *Becoming-teacher: A rhizomatic look at first year teaching*. Sense Publishers.
- Van Manen, M. (2015). *Pedagogical tact: Knowing what to do when you don't know what to do*. Routledge.

BIOGRAPHICAL NOTE:

Nelia Evans is currently a Vice-Principal in the Fraser Valley of British Columbia and has been an educator in the Lower Mainland for over 20 years in both public and private school sectors. Her research interests include new materialist theories, and rhizomatic relations within her educational context. Her background includes a Graduate Diploma in Self-Regulation and Social-Emotional Wellness in the Classroom, as well as a Master's Degree in Educational Practice through Simon Fraser University. She is grateful to journey with and learn from her husband, Dr. Andrew Evans and children Olivia (19) and Isaiah (17).

Cher Hill is an Assistant Professor and a Teacher Educator in the Faculty of Education at Simon Fraser University. She supports teachers in studying their own practice as educators using action research and practitioner inquiry methodologies. Her current research involves the development of empirically informed understandings of posthuman ecological education, while taking immediate action to care for salmon. She is a passionate supporter of participatory learning and community-based educative initiatives.
