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Greetings readers and writers! The summer solstice is quickly approaching and no doubt many of you are anticipating some summer time enjoyment or perhaps others have different plans like summer teaching or studying. As a primary teacher and then teacher educator I spent many summers over the years attending graduate courses and then later teaching them. Consequently, my summers often took a pedagogical turn, which I always found to be somewhat different in a sensate way than teaching or studying in the autumn or winter semesters. There was always a perception of relaxed engagement, even playfulness with ideas and interactions, perhaps because we all sensed the heightened awareness of the fecundity of summer which fostered our own thriving and flourishing in our learning pursuits. With that in mind I invite you to drop into this issue of *in education* with that summer time sense and engage with the articles and book reviews gathered together. I am confident you will find something that will pique your interest. Enjoy the summer!

Although I penned this before in these pages, at the risk of misleading readers and writers again, I write that this will be my last Editorial for *in education*. There will be a new Editor taking over the journal and steering it toward new landscapes of research and learning. Thank you to all who have volunteered as peer reviewers, without you a journal cannot exist. And thank you to all the folks who chose to have their work published with *in education*. Take care and keep well each of you.



Gesturing and Image Making: Growing Mathematics Understanding

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Abstract

This article explores the role that gestures play in the development of mathematical understanding. Using Pirie Kieren's (1994) notion of image making and Lunney Borden's (2011) idea of verbing mathematics, we share two examples of how students respond to teacher requests to demonstrate what they know about arrays.

Keywords: image making, verbing mathematics, gesturing, mathematics



Gesturing and Image Making: Growing Mathematics Understanding

In the *Principles to Action* document, the National Council of Teachers of Mathematics (NCTM) (2014) recommended that teachers "elicit and use evidence of student thinking" (p. 10). But how do teachers gain insight into what goes on in the minds of students? To assess progress toward understanding, teachers must know what is important to notice, plan for such noticings, and use this information to make instructional decisions (NCTM, 2014). Knowing what matters in determining students' understanding can be challenging. Teachers often pay attention to products created by students or to oral explanations given by students after they have completed a task; however, we think it is important for teachers to pay close attention to students' use of non-verbal resources, such as gesturing as they are doing a task. Students' ideas can be captured by such in-the-moment observations of not only what students say but also by what they do. Despite calls to use evidence of students' thinking, little research details how the effective use of the body—particularly gesture—might afford teachers insight into student thinking in real time.

Williams-Pierce et al. (2017) identified three pedagogic needs for teachers: (a) to appreciate more fully the role of gestures in developing mathematical understandings, (b) to determine ways to capture the gestures through tasks and assessments, and (c) to use information from gestures in real time. In our work, we have been thinking about the ways in which we can make student thinking visible and have drawn upon existing data to consider the role of gestures in this process. While a large body of literature emphasizes the importance of gestures in mathematics, few researchers show examples of teachers paying attention to and using gestures for assessment. We argue that paying attention to students' gestures can assist teachers in understanding students' thinking by noticing not only what students are saying but also what they are doing.

The purpose of this paper is to highlight two examples of how students use gestures to respond to teachers' requests to demonstrate what they know. We argue that the types of tasks or investigations that teachers select can elicit these kinds of non-verbal expressions, which in turn, allow teachers to observe ideas that can support growth in mathematical understanding.

Using Gestures to Express Mathematical Thinking

Current mathematics education research recognizes gestures, long used informally to augment or replace speech (i.e., hand and body actions or movements), for their importance in growing mathematical understandings (Towers & Martin, 2015). Radford (2009) theorized that thinking does not happen only "in the head but in and through language, body, and tools" and that these "are *genuine constituents* of thinking" (p. 113). Through his description of research on Grade 10 students' sign usage, Radford highlighted the importance of gestures, utterances, and various tools while working through a mathematical task. He argued that individual learners demonstrate their thinking through the use of gestures not only to serve to make something visible to others but also to promote mathematical thinking.

Multimodality

In considering the role of gestures, we recognize that a large body of literature refers to the notion of multimodality: semiotic resources are used concurrently in making and conveying meaning (Arzarello et al., 2009; Wu, 2014), which includes gesturing. For example, Shreyar et al. (2010) looked at the multimodal aspects of a whole-class discussion among a teacher and Grade 6 students and discovered that the teacher's use of a variety of semiotic resources, including

diagrams, gestures, and speech, guided students' mathematical understanding of the concept of percentages. Samson and Schafer (2011) analysed a high school student's visualization of a geometric pattern. They found that a fruitful visualization—one that is and will lead to a general rule—was reached through a combination of linguistic devices, metaphor, gestures, rhythm, and symbolic expressions. Arzarello et al. (2009) also explored meaning-making in the context of using a variety of modes. In their research with Grade 11 students, they noted, “the complex intertwining among gestures, speech, and inscriptions in learning mathematics” and that these “jointly support the thinking processes of students” (pp. 106–107). Similarly, Radford (2008) discussed how actions, gestures, and words work together to construct knowledge. So, while all modes of expression are important in conveying meaning, gestures are key in each of these examples. Thus, we agree with Edwards (2009), that gestures are a significant mode through which to represent thinking and may have a powerful influence on learning mathematical concepts.

In our own work, we draw from Pirie Kieren's theory and Indigenous knowledge systems rooted in verbing to support teachers in the classroom. Much of our work involves helping teachers to act in real time, observing and listening for students' in-the-moment thinking and making pedagogical decisions about the kinds of experiences that support growth in students' mathematical understanding. We believe that gestures play an important role in both of these theoretical underpinnings of our work.

Theoretical Underpinnings: Bringing Together Image Making and Verbing

Pirie-Kieren (P-K) Theory

Researchers Pirie and Kieren (P-K) (1994) developed a theory to explain how we learn mathematics. P-K theory, as it is referred to, tells us that growth in understanding occurs in non-linear ways through eight layers of understanding. They name these layers: primitive knowing, image making, image having, property noticing, formalising, observing, structuring, and inventizing. P-K theory is helpful because it explains how learning is flexible and dynamic. Students continuously move between and among layers, using and revisiting what they already know to grow understanding. For this paper, we focus on the image making layer, where the emphasis is on students using what they know in new ways as they generate ideas to grow their understanding.

Image Making

In P-K terms, the word “image” is not a picture; rather, it comprises all the ideas that emerge through learning experiences involving concrete materials, symbols, pictures, or other visuals, including gestures. Image making involves actions—doing, reviewing, seeing, and saying—as students construct their understanding. To grow mathematics understanding, in P-K theory, value is placed on learners making and using a rich image (or idea) to make connections by noticing important mathematical properties. For example, when learning multiplication, students might build an area model, make a set model, explore jumps on a number line, or look for number patterns on a hundreds chart, and so on. So, image making is not just about building or making these representations but also looking across these representations to see emerging ideas about multiplication (see Lunney Borden et al., 2021). As such, we argue that the concept of image making is important because when teachers are selecting tasks for students, it is necessary to consider how the task will evoke a variety of images, including actions (gestures).

Verbing Mathematics

Image making aligns with ideas from a second theory we draw from in our analysis, namely verbing mathematics (Lunney Borden, 2011). Verbing was inspired by the verb-based nature of Indigenous languages as a culturally consistent approach to mathematics teaching and learning. Lunney Borden (2011) advocated for paying attention to the actions and processes involved in mathematics. For example, teachers provide experiences for students to engage in joining and separating using concrete materials rather than focusing on the sum or the difference. Verbing mathematics directly contradicts the tendency toward using too many nouns to describe processes (actions). Rather than focusing on the nouns of an artifact like an array (i.e., asking about the dimensions or area), we focus on the verbing by bringing attention to the making of or the forming of the array. Attending to processes allows the image making to be an ongoing movie rather than a still image. This might look like a student seeing the action of moving counters together to make a 10 when joining six counters and five counters. A teacher might also see a student repeatedly gesturing to show how these sets of counters came together to make the 10. This is how gestures can help teachers to see image making as moving pictures.

Selecting a Task

Smith and Stein (1998) explained the importance of using specific criteria for selecting tasks to promote higher-level cognitive demands. One criterion involves making connections using multiple representations—visual diagrams, manipulatives, symbols, and problem situations. Smith and Stein (2018) elaborated on teachers selecting a task by saying that using a manipulative or diagram helps to develop mathematical ideas as students work on the task. While many researchers discuss the value of using contextualized problems alongside the manipulative or diagram, the tasks selected in this paper avoid contrived situations and instead use mathematical ideas itself as the context. In both videos, the mathematical objects are the context for the thinking. The task in Video 1 was specifically designed to draw from verbing mathematics as a way to support student learning. Similarly, the task in Video 2, was designed to focus attention on growing patterns. It is worth noting that these tasks also evoked gesturing as students engaged with them.

Methods: Video Analysis

As part of professional meetings about ongoing inquiries into the teaching and learning of mathematics, we discussed how teachers come to know and understand what children are thinking with respect to the mathematics they are learning. We revisited two video clips from the two different projects on several occasions and were fascinated by the gesturing in each video. While the two studies in question utilized different methodological approaches and had different purposes, both took up this idea of how teachers and learners make thinking visible. Subsequent conversations about the role of gestures in these videos led to further, more in-depth exploration of the two video clips through video analysis.

Thus, the data used in this article comes from two larger research projects. One project was designed to decolonize mathematics teaching and learning in an Indigenous context, drawing upon language and culture to centre L'nui'ta'simk (L'nu or Mi'kmaw ways of knowing, being, and doing, in particular, verbing). This project brought researchers together with teachers in Mi'kmaw schools to implement lessons designed to help students build understanding of concepts in culturally consistent ways. Decolonizing mathematics teaching and learning involves honoring students' cultural ways of knowing, being, and doing as they engage in learning. In this particular instance, the focus was on drawing from the verb-based nature of the Mi'kmaw language to design tasks rooted in a verbing approach. The video clip selected for further analysis comes from a Grade

3 classroom where Lisa had worked with teachers to develop a set of learning centers focused on building an understanding of multiplication through verb-ing (e.g., Lunney Borden et al., 2021). The videos collected documented several moments of interaction with the tasks. One of these tasks, “building rows of,” is used in this paper.

The other project focused on creating a professional learning community for inquiries into mathematics education. Practicing teachers, administrators, researchers, and graduate students met weekly for 12 weeks. As part of the course, in-service teachers participated in weekly video club meetings to share short video clips that addressed specific inquiry topics from their classrooms. The video clip selected for further analysis in this paper was initially brought to the video club by one of the teacher participants because it provoked a rich conversation about the student’s use of gestures.

We adapted Powell et al.’s (2003) analytical model for studying gestures for our video data analysis. Their seven phases are: viewing the video data attentively, describing the video data, identifying critical events, transcribing, coding, constructing a storyline and composing a narrative. A researcher may go back and forth through these phases. The following phases unfolded as we studied the video data:

- We started by viewing the selected video clips to look for evidence of gestures and identify what the student and teacher were saying and doing.
- We reviewed the video several times, paying close attention to the occasions when the gestures took place, recording notes and using codes about the student’s actions and expressions and making sure not to interpret them at that point.
- We identified critical events when the students responded to the teacher’s requests with expressions (speech) and actions (hand gestures).
- We transcribed the video clips related to the critical events.
- Using the data, we constructed a narrative describing the student’s actions and expressions associated with the teacher’s requests to demonstrate their understanding.

Coincidentally, both examples look at students using an array, a rectangular arrangement of objects in rows and columns, to represent multiplication. In the first example, the student works on building an image for multiplication and developing counting strategies to determine the total. In the second example, the student uses an array to explore patterns and determine a pattern rule. While we engaged in these research projects separately, we noted that in both of our examples, the student first used image making to build understanding of the array, and then used the idea of an array to build understanding of the task at hand. In what follows, we first describe how each student used their images to make sense of the array. Later, we will share how they worked with the array to find a solution.

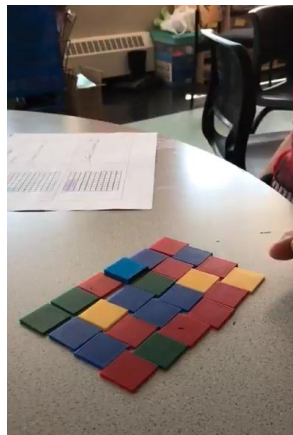
Image Making: Arrays

Sa’n’s Shaping of a Flipped L

Sa’n has rolled four and six on his two dice and has been asked to build “rows of” for this activity by choosing either four rows of six or six rows of four, using square color tiles. He builds four rows of six, though from the positioning of the camera it appears more as six rows of four. As the teacher arrives to observe, Sa’n’s area model is already created (Figure 1).

Figure 1

Sa'n's Area Model



Note. The image shows an array of four by six

As he refers to the six squares in a row, which he calls rows, he moves his hand up and down repeatedly along the row of six squares. He then turns his attention to the other dimension and repeatedly moves his hand back and forth along the four squares, stating “four rows” (Table 1). This gesture of a flipped L along with the repeated motion along these lines is how Sa'n shows his image making of the array. While his language of rows and columns is not yet clear, what is clear is that he has an image of an array that is contained within this area bounded by his gesture. His explanation alone is insufficient to see his thinking about arrays. Rather, the gestures showing the boundaries of the array give insight into the image making, supporting his understanding of this structure.

Table 1

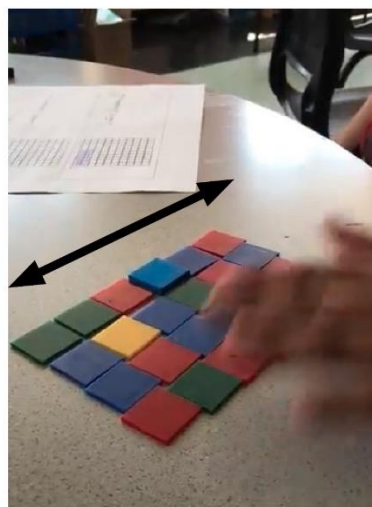
Sa'n's Gestures for an Array

Teacher & Student Talk	Gesture	Image
T: You have it?	<ul style="list-style-type: none"> Starts at corner of array 	
S: Yep		
T: Four rows of six, how much is there all together?		
S: Six rows		

- Runs hand along the side to other corner

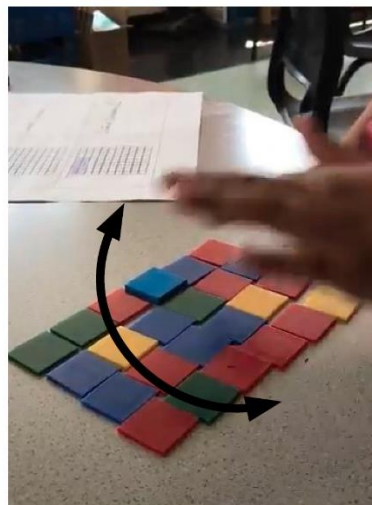


- Repeatedly moves hand along side

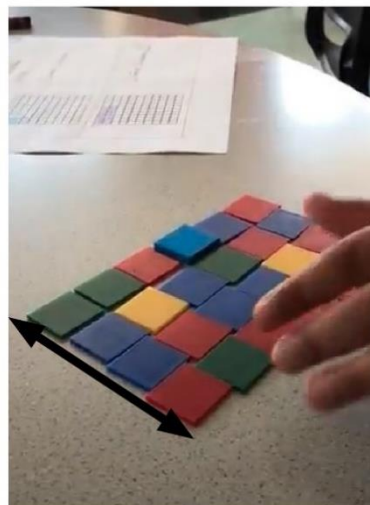


S: Four rows

- Repeats gesture along the top of array, moving hand along top



- Moves hand across the four rows showing he has four of the rows of six

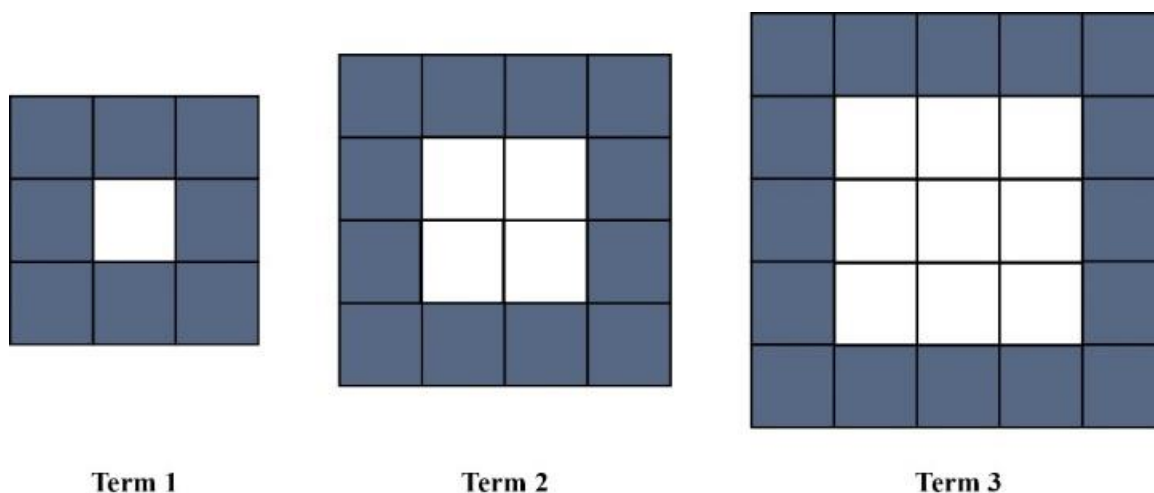


Serra’s Tracing the Backward L

To introduce the concept of an array, the teacher asks Serra: “D’you know what I mean when I say an array?” Serra responds by moving her hand to the middle section of term three and saying, “three across and three up.” She places three fingers on three units in the third row and then drags one finger down the third column (Figure 2).

Figure 2

Geometric Growing Pattern Task

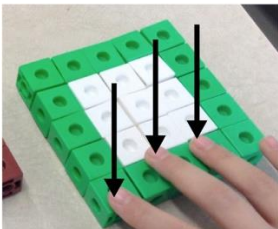
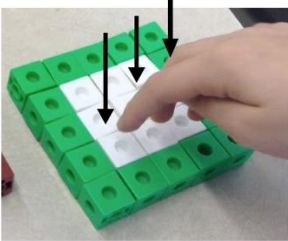
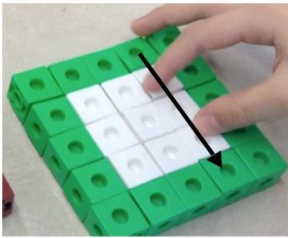
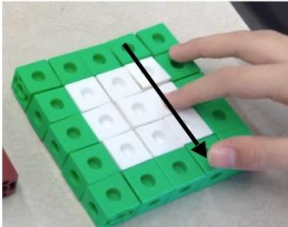


Note. Array growing pattern

Her combined words and gestures demonstrate her images about arrays—which include rows and columns. When the teacher prompts Serra for another way to describe an array, she gestures in a slightly new manner. Using her index finger, she points to the first unit in the third column, then drags her finger down three and left towards the first unit in the third row. Resembling a backward “L,” Serra’s gesture is one continuous movement that shows the boundary of the array (Table 2).

Table 2

Serra's Gestures for an Array

Teacher & Student Talk	Gesture	Image
<p>T: D'you know what I mean when I say an array?</p>		
<p>S: Yeah.</p>		
<p>T: Okay, what do I mean?</p>		
<p>S: You mean an area that has for example...</p>		
<p>T: [interrupting] Use the example as the middle.</p>	<ul style="list-style-type: none"> • taps bottom row of the term with three fingers 	
<p>S: For example, three across [pause] three across and three [pause]</p>	<ul style="list-style-type: none"> • three fingers point to the third row in the three by three square in term three 	
<p>T: Okay.</p>		
		

S. And three up

- with index finger drags finger down the third column in the three by three square

Teacher:
OK, do you know another way to say
three rows of three?

Serra:
[pause] three rows
[pause] an array of three

- moves index finger down third column in the three by three in square and across the bottom row (creating a backwards “L”)

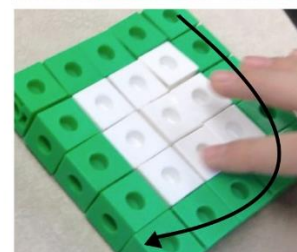
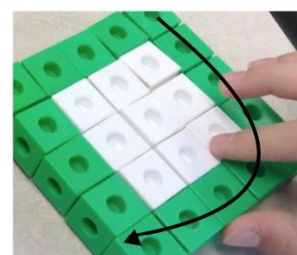
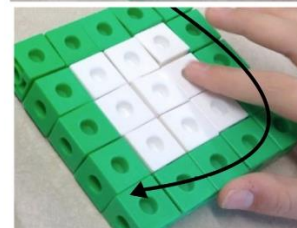
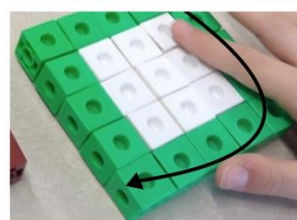
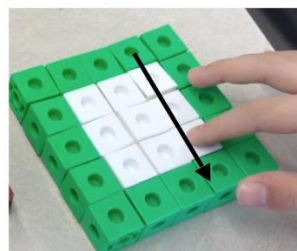
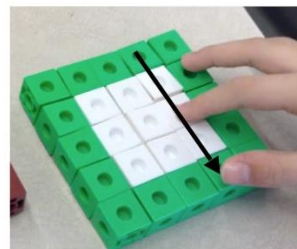


Image Making: The Task

Sa'n's Gesturing Double-Double



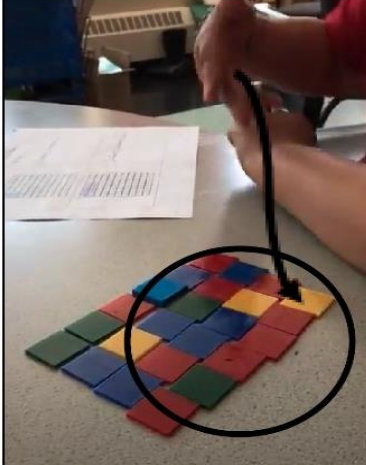
Following Sa'n's demonstration of the structure of the array that he built, he does not

immediately respond to the teacher’s request for a total. She then asks, “Can you figure out how much is there, altogether?” After a brief pause to find a total area or a total number of squares, he declares that there are “24!” The teacher then asks, “How did you get that?” At this point, Sa’n again demonstrates his process through gestures. He brings his hand over the first row of six and then the next row of six, stating, “Well, six and six is 12.” He then gestures, seeming to hold that image of 12, and flips it over to the next 12, stating, “And 12 more.” His gestures show how he is taking that row of six and doubling it to get 12, then taking that 12 and doubling it to get 24. His gestures demonstrate the shifts in what he is paying attention to as he calculates the total (Table 3). This shows that he has a clear image of how the double-double strategy can be applied in this context.

Given that a goal of this lesson was to explore multiplication and determine what strategies children are using to count the total, Sa’n’s gesture provides helpful information to the teacher about a strategy that can be capitalized upon in discussions while consolidating understanding.

Table 3

Sa’n’s Gestures for Doubling

Teacher & Student Talk	Gesture	Image
T: Can you figure out how much is there all together?		
[Pause]		
S: 24		
T: 24. How did you get that?		
S: Because, because if you have six...	• Points to the first row	
		



- Lifts up his hand as though he is picking up the cluster of 12



S: And you have 12 more

- Motions toward to the next two rows of six making the other 12





Serra’s Pointing to “Two by Two”

Following Serra’s demonstration of her images for arrays on the third term, the teacher prompts Serra to apply this approach to the second term by asking, “And what can you see in the second one?” Serra points to the first unit of the second row and the first unit of the second column and simultaneously says, “The second one has two by two.” Instead of tracing a backward L, Serra touches the endpoints of her backward L. Following a prompt to look at the first figure, Serra points to the one unit in the first figure and says, “one by one” (Table 4).

Table 4

Serra’s Gestures for an Array

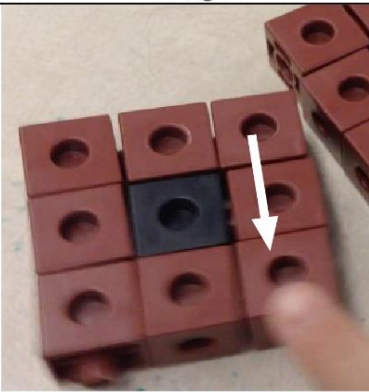
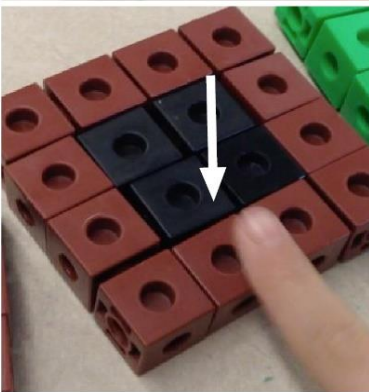
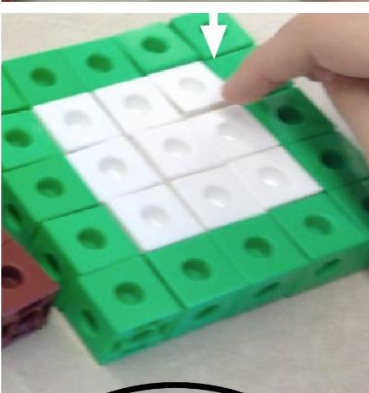
Teacher & Student Talk	Gesture	Image
S: Has two by two.	<ul style="list-style-type: none"> points and taps to the upper right and bottom left linking cubes of the two by two square in term two 	
T: Two by two		

“Are You Noticing Any Patterns Here?”

Once the teacher has observed Serra’s actions and expressions on the first three terms, he asks Serra: “So what might the 10th one have? Are you noticing any patterns here?” Again Serra gestures, but this time to an imaginary 10th term. With her index finger, she taps terms one, two, and three and then the table surface next to term three, and says, “The 10th one will have 10 by 10.” Serra has noticed a pattern and uses this to predict what the 10th space might look like. She uses images of the first three terms to describe the 10th array, seeing and gesturing beyond the physical figures in front of her (Table 5).

Table 5

Serra’s Gestures for a Pattern

Teacher & Student Talk	Gesture	Image
S: The 10th one might have	<ul style="list-style-type: none"> with an index finger, points to each term in sequential order 	
	<ul style="list-style-type: none"> taps hand on the empty space beside the third term 	
		

10 by 10

T: 10 by 10. Now the question is how can we figure out what will be on the outside.



Discussion

It is evident from these two examples that, as Radford (2009) indicated, the student thinking is more than “in the head but in and through language, body, and tools” (p. 113). Students communicated their ideas in multimodal ways, drawing upon the tools (tiles/blocks), their gestures, and the words they used to communicate their ideas. While focusing our attention on gesturing, we recognize that this interconnected and complex approach to task design is what created the conditions for these students to engage in the tasks in these multimodal ways. From this observation, we see three important messages for teachers emerging from the above examples: selecting the task to elicit gesturing; observing and noticing student thinking reflected in the gesturing; and drawing from the dynamic nature of gesturing to focus on the process for growing mathematical understanding. We elaborate on each of these ideas below.

Selecting the Task

As noted by Williams-Pierce et al. (2017), it is important for teachers to consider the task or investigation they will use to explore a concept and how the task can provide an opportunity to capture the gestures. Sa’n and Serra’s gestures were linked to the models; their hands were pointing to components of the model that supported their image making. The concrete objects played an essential role in growing the mathematical understanding of each student. By ensuring students have numerous ways for doing, reviewing, seeing, and saying, there is more likelihood that students will connect gestures to image making. In the tasks above, the concrete objects were not used to represent something else, they were the object of investigation. In other words, Sa’n was asked to make rows of squares rather than use the squares to represent something like tiles on a floor or chairs organized in rows. Serra was asked to continue the pattern of the linking cubes rather than using the cubes to represent something like the tiles around a pool, a commonly used task. This choice to make the concrete also the context keeps children’s attention focused on the mathematics rather than concerning themselves with what this model represents. We would later apply these models to a contextualized problem, but we wanted to first focus on the mathematical ideas that emerge from exploring the concrete materials (Smith & Stein, 2018). Selecting a task that elicits opportunities to connect gestures to models will support image making.

Observing and Noticing

The interactions between teachers and students described above are examples of how learners may use gestures to communicate about the images that are shaping their understanding.

Sa'n used gestures to show how he was forming the image of the array and then how he was counting the total. His gestures show his understanding of what an array looks like as well as how the double-double strategy works in the context of the array. In Serra's case, she is gesturing alongside what she is saying to show her understanding of rows and columns, a characteristic of an array. Using this image of an array to make a prediction, Serra extends the pattern to and provides a gesture of the 10th element in the pattern that is not visible. While Serra cannot yet articulate the solution to the problem, her gestures show the teacher she has a process to get to the solution and knows what the 10th term will look like. Like Samson and Schafer's (2011) findings, Serra's visualization of the geometric pattern supported her understanding by helping her to think about a more general rule. Also, Sa'n's use of the double-double strategy was reflected in his gesture. Both students use gestures to help them explain their thinking; in fact, the gestures reveal more than what their words convey. As such, it is important for teachers to notice these gestures so that they can assess how the student's thinking with respect to the task is being communicated by the gestures.

Focusing on Process

The gestures were in motion, showing how students' image making was dynamic. Thus doing, reviewing, seeing, and saying are active processes aligned with the verbing of mathematics. For example, asking, "Can you figure out how much is there, all together?" or "So, what might the 10th one have?" bring the students' attention to the action of creating mathematical images. The dynamic nature of the gesture reflects the focus on process—the mental activities that get students to the solution—rather than on a static representation that shows a solution. The students used gestures to show how they came to the solution and this is reflected in the motion of their hands. Sa'n uses his hands to show the building or forming of the array. He uses his hands again to reflect the doubling of six and six and then doubling that again. His actions retrace the process he took to come to a solution. He is not giving a static final answer, he is telling us what he did with his gestures. Similarly, Serra uses her gestures to show her thinking about rows and columns. She uses the backwards L to show how rows and columns are forming, and then repeats this with the two by two but just points to the end points. She uses this idea of rows and columns to predict the non-existent 10 by 10. Serra is focused on the forming of these arrays; they are coming into being in her gestures. We align this with verbing because a verbing approach to mathematics values the forming of mathematical ideas through such construction rather than expecting a static diagram. Thus, like P-K, we emphasize image making as not merely a static image, but rather a moving picture that is created from acting and expressing: doing, reviewing, seeing, and saying.

The dynamic nature of the gesture illustrates students' growth in mathematical understanding, thus providing the teacher a window into how students are thinking in real time (Williams-Pierce et al., 2017). Teachers often ask students to recount what they did to get a solution, yet by watching the gestures that the students used, we gained insight into their process as it retraced their thinking. Paying attention to these gestures makes student thinking observable, and provides an assessment tool for helping students bring language to that process.

Concluding Thoughts

From our discussion above, we see that teachers can select tasks that will elicit gesturing, notice how the gesturing signals the thinking, and respond to the dynamic nature of a process conveyed by the gestures to stay with students' own ideas as they guide their mathematical understandings. To stay with student ideas, means we can use students' own ways of thinking to support their

learning rather than trying to channel their thinking into some predefined process. The examples of Sa'n and Serra working on a mathematical task involving arrays illustrate how students used gestures to convey the Image Making process (Pirie & Kieren, 1994). We saw a focus on action aligned with verbing (Lunney Borden et al., 2021) as the student gestures showed how the arrays were forming or patterns developing..This highlights the dynamic nature of image making. Gestures provided us with insights into how the students were thinking about the mathematical ideas even when their language was not yet able to convey these ideas. While our examples particularly focused on arrays, we believe such examples support teachers to appreciate more fully the role of gestures in developing mathematical understanding (Williams-Pierce et al., 2017) and see what it looks like to notice gestures as a viable resource for growing mathematics understanding.

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Inclusive Classrooms: A Confessional Tale on a Métissage

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The video included in the article as critical context to explain the confessional tale. The complete métissage as a video is found at: <https://youtu.be/H6xznYyqahs> (Culver & Hopper, 2023).

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Abstract

This article is written as a confessional tale of the authors' experience of conducting a métissage research process on inclusive classrooms within a course as part of a graduate program. Amanda, the lead author, is a queer elementary school teacher, researching the 2SLGBTQIA+ community within local classrooms and schools, and the Tim is their instructor in a research methods course. Together, we worked to explore the métissage methodology through a confessional tale to unpack the process and to frame the performance piece shared as an anonymously read métissage based on three participants' voices: (a) a teacher and parent of a child with a disability, (b) an Indigenous teacher and (c) the lead author's voice as a queer teacher.

As Kluge (2001) explained, confessional tales represent the researcher's personal account through the reflexive process that they experienced in the beginning, during, and at the end of the research process. Confessional tale is the postscript that follows the research progression in a highly personal diary-like format (Van Maanen, 1988). A métissage is an arts-based research methodology where a series of narrative writings by single authors are woven together to create a larger, thematic text, with the intent of "transformation from the inside out" (Worley, 2006, p. 518). In this article, therefore, we offer insights from Amanda's reflective comments, with their critical friend Tim (course instructor), on both the métissage process and their commitment to use research to create safer spaces for all through promoting participatory lived experience insights on inclusivity.

Keywords: confessional, métissage, inclusion, queer, LGBTQ, Indigenous, disability, performance, participatory

INEDUCATION

Inclusive Classrooms: A Confessional Tale on a Métissage An Extract From Métissage “Queering Inclusive Spaces”

Authenticity

Inclusion feels like being able to express things the way that is right to me.

(Reader #1)

Questions are encouraged.

Participation is encouraged,

but not forced (or leveraged for marks). (Reader #2)

Hard topics are addressed with care

Not shied away from.

(Reader #3)

It’s an ability to apologize and recognize that someone may have made an error in their words and behaviours. A cultural humility in understanding people can be wrong, including self.

Apologies are not forced.

I can identify my child’s contributions to the classroom community

Positive AND constructive feedback is shared.

My experience with and knowledge of my child is honoured.

Inclusion is people-focused, not business-focused

We teach students first, not curriculum.

We are not empty vessels, waiting to be filled.

We are whole. We are complete.

We are writing this confessional tale on our experience of conducting a métissage research process as an assignment within a course as part of a graduate program. Amanda Culver, is a queer elementary school teacher pursuing a PhD research program on the 2SLGBTQIA+ community within local classrooms and schools, and Tim Hopper, their instructor in a graduate level research methods course, supported them in exploring the métissage process. Together they co-created a confessional tale, unpacking the tensions, opportunities, and challenges in developing a métissage project. They queered the métissage process by unpacking it to reveal the anxieties, tensions, and possibilities that occur as a novice researcher takes up the role of researcher whilst promoting a co-participant stance with their study participants. As such, this article develops a relativist standpoint of epistemology between researcher, friends, and an academic pursuing a degree (Sparkes, 2002). In this article, we offer insights from Amanda’s reflective comments interwoven with their critical friend, Tim’s, comments on both the métissage process and a commitment, through research and teaching practice, to create safer spaces for all to share and construct meanings and to change exclusionary and silencing practices.

Métissage is derived from the Canadian word Métis, and is a way of merging and blurring genres, texts, and identities, as well as a means for taking an active literary stance, a political strategy, and pedagogical praxis (Chambers et al., 2002). As an arts-based research methodology, a métissage is comprised of a series of narrative writings by single authors which are then interwoven together to create a larger thematic text or artifact with the intent of “transformation from the inside out” (Worley, 2006, p. 518). Essentially, a métissage is a collective

autoethnography around a common phenomenon, with stories rooted in the participants' past and in their stories of becoming. The scope of *métissage* will be outlined more fully within the confessional frame that will be explained next.

Confessional Tale

Confessional tale, as noted by Van Maanen (1988), is the postscript that follows the research progression in a highly personalized diary-like format. The intent of a confessional tale is to show how the work came into being and to reveal the dilemmas and tensions contained in the process (Hopper et al., 2008; Sparkes, 2002). Confessional is seen as a complimentary genre in relation to a particular research methodology, highlighting ethical and methodological issues that may conflict with the researchers' values or with guidelines associated with the research process being undertaken. Essentially, this genre captures the reflexivity from dialectical conversations between the researcher, a critical friend, and the intent of the research project.

As noted by Sparkes (2002), confessional tales “reveal what actually happened in the research process” from start to finish (p. 58). They are highly personalized, as they are written from the perspective of the researcher. This genre captures the reflexivity from dialectical conversations between the researcher, a critical friend, and the intent of the research project. Mistakes and questions are given space to exist within the research process. “Confessional tales appeal to personalized author(ity) and emphasize the researcher's point of view” (Sparkes, 2002, p. 59). Kluge (2001) noted that what is being represented in a confessional tale is the researcher's personal account through the reflexive process of what they experienced in conducting the study.

The researchers share accounts from the beginning of the research process: insights on choosing the topic, framing the study, identifying a methodology, and recruiting participants. The researchers write accounts during the research process, with reflections on collecting and recording data, analyzing and interpreting data, and verifying the interpretations. Finally, they reflect about the end of the process: writing up of the findings, and in the case of arts-based approaches, the performance piece, and then sharing the findings with others. Sparkes and Smith (2014) wrote that confessional tales claim to research knowledge if they:

- Foreground the voice and concerns of the researcher about what happened during the research process, offering authorial presence in the text as opposed to a disembodied voice,
- Present fieldwork in a way that takes the reader behind the scenes of the “cleaned up” methodological discussions often offered by more realist approaches,
- Offer highly personalized style insights whose sincerity persuades and informs the readers in relation to personal mandates of the researcher, and
- Promote a reflexive stance to explicitly problematize and demystify interviews, fieldwork, or participant observation by revealing what really happened in the research process from start to finish.

In confessional tales, the focus is on the interpretative process and the problems of coming to know rather than just the findings of the study, providing a degree of reflexivity concerning how the researchers might influence interpretations and conclusions. As Douglas and Carless (2010) stated, “Our use here of a confessional tale can be seen as a methodological strategy which seeks to align with epistemologies that promote the creation of reflexive knowledge” (p. 338). The confessional

tale offers a hermeneutic process that raises ethical and methodological questions about how we come to know about ourselves and others via our research activities.

In this article, confessional tales are used to highlight some of the challenges and tensions faced within the process of choosing *métissage* as a research methodology (Hopper et al., 2008; Sparkes, 2002), particularly in the co-creation process and the need for the participants to maintain some type of confidentiality. The confessional pieces in this article raise questions for consideration for those intending to explore *métissage* as a research genre. The self-reflexive confessional material is interwoven in relation to the guidelines for doing the *métissage* research and its commitment to presenting a cultural critique. The intent in this confessional article is, therefore, for readers to examine their own practices and assumptions, while they are learning about the practices and assumptions of others engaged in a process they wish to engage in (Schultze, 2000, p. 8). Ultimately, as Sparkes and Smith (2014) noted, our goal is “helping ... inquirers learn from the private mistakes of others, and removing the inhibitions generated when novice researchers are fed solely on a diet of completed, methodologically sanitised, successful research projects” (p. 158).

Inclusivity in BC Classrooms

The *métissage* study focused on inclusivity. It focused on marginalized groups who are excluded due to some form of disability, Indigenous background or being queer. Summarized below are key insights that frame some of the issues surrounding inclusivity in BC schools within these marginalized groups.

Sexual and Gender Diverse Students

Studies that focus on queer experiences in public schools, by queer people, are few and far between. We know that 62% of 2SLGBTQIA+ students feel unsafe at school (Peter et al., 2021). Indeed, as Amanda notes, “I have been that student. I hope that, throughout my career, my research will make it so that schools become safer places for me and my community.” This personal, lived experience motivated the *métissage* study. Everyone has a sexual orientation and gender identity. While sexual orientation was protected under the Canadian Human Rights Act in 1996, gender identity and expression was not added as a prohibited ground of discrimination under the BC Human Rights Code until July 2016. This code forced all BC school districts to include specific references to SOGI (Sexual Orientation and Gender Identity) in anti-bullying policies by the end of 2016 (Education and Child Care, 2017).

School districts have all drafted policies to protect and support 2SLGBTQIA+ students and staff. However, these policies were designed without analyzing the layered conditions that shape how schools give meaning to trans and non-binary gender. As Meyer and Keenan (2018) wrote, “Without that knowledge, existing policy, like existing law, has largely been created through a lens that frames static, cisgender identity as the norm, a lens that is further shaped by institutionalized assumptions about race, class, and ability” (p. 749). They also claimed that policies and practices aimed at “safety” and “inclusion” often seek to achieve these goals through the regulation of individual behavior, rather than changing the institutional conditions that produce normative systems of gender (p. 739). This cosmetic attempt to address 2SLGBTQIA+ issues does not address the root causes. As Herriot et al. (2018) noted, “Despite numerous legal precedents and policy changes across multiple jurisdictions, the lived realities of LGBTQ school students in British Columbia continue to be rife with harassment and a lack of safety” (p. 701). How then, in relation to 2SLGBTQIA+, do we make classrooms safer, more inclusive spaces?

Indigenous Students

In 2015, the Truth and Reconciliation Commission of Canada published its 94 Calls to Action to respond to the experiences and impact of the residential school system. Beyond 94 was launched by CBC News in 2018 to report on the status of the Calls to Action. Today, none of the seven education-specific Calls to Action have been completed (CBCNews, 2018). Call to Action 63 is stated as follows:

We call upon the Council of Ministers of Education Canada to maintain an annual commitment to Aboriginal education issues, including: (1) Developing and implementing Kindergarten to Grade 12 curriculum and learning resources on Aboriginal peoples in Canadian history, and the history and legacy of residential schools; (2) Sharing information and best practices on teaching curriculum related to residential schools and Aboriginal history; (3) Building student capacity for intercultural understanding, empathy and mutual respect; (4) Identifying teacher-training needs relating to the above. (Truth and Reconciliation Commission of Canada, 2015)

Every year, the BC Ministry of Education publishes the “How Are We Doing?” Report, which monitors the performance of Indigenous students in the BC public school systems. In the 2021/22 school year, Indigenous students reported greater rates of being bullied, teased, or picked on at school than non-Indigenous students (First Nations Education Steering Committee, 2022). Clearly, work needs to be done so that Indigenous students can exist safely within the education system.

Students With Disabilities

Inclusive classrooms need to be considered through a disability lens. During the Community Living Movement, which started in the 1950s, parents of children with developmental disabilities and people who had experienced institutionalization came together to fight for de-institutionalization and access to education in Canada (Inclusion BC, n.d.). The BC School Act was amended in 1959, making it a public responsibility to educate children with developmental disabilities (Inclusion BC, n.d.). Decades later, in 2006, the United Nations General Assembly adopted the UN Convention on the Rights of Persons with Disabilities (CRPD), which was the first legally binding international treaty which protected the rights of persons with disabilities. Canada signed the CRPD in 2007 (Inclusion Canada, n.d.). While Canada has made significant progress in making schools more inclusive, “segregated, special classrooms, limited access to teams, and lowered expectations are just some of the ways that children with an intellectual disability are excluded in Canadian schools” (Inclusion Canada, n.d., para. 4). For example, French Immersion students with suspected learning disabilities in Grade 1 often do not receive a formal evaluation until Grade 4, when they begin to receive instruction in English. Students with disabilities continue to face challenges concerning equitable access to education within Canada.

Policies are in place for BC classrooms, and all Canadian classrooms to be inclusive spaces for all, including for queer, Indigenous, and/or disabled students. Culver’s (2022) *métissage* study set out to offer personal insights on inclusive spaces for three participants who identify in these marginalized groups.

Confessional Asides on Research Process

In this section, we will explain the process followed to conduct the *métissage*. Amanda’s voice will be in italics, reporting on their reflexive voice as noted by both authors or using the first person “I” to capture Amanda’s hindsight and reflections. At times we will use “we” to capture the shared conversations on the research process between the researcher and their participants, as well as Tim.

Confessional pieces are indented at .25” and direct quotes from the research study recordings are indented .5” and in quotation marks. We propose that switching from third person narration, to Amanda’s voice in first person and then to shared reflections as “we” provides more clarity for understanding the decisions made and considerations for future métissage work, creating a dialogical space in the research process. In the next three sections we will attempt to weave in the confessional insights in italic as we go through the three phases highlighted by Kluge (2001): the beginning, during, and write-up phases.

Beginning Phase

Literature on Métissage and Initial Confessional Reflections

Métissage comes from the Latin *mixtus*, meaning mixed. Importantly, the words “Métis” and “tissage” are front and center. “Tissage” is French for “weaving.” Métis people are those with both Indigenous and European ancestry, a woven embodiment of both the colonized and the colonizer. This indigeneity is central to the work of métissage, where life stories are woven together. “In a political sense, métissage resists grand narratives, or discourses that attempt to totalize experiences. Instead, the goal of ‘mixing’ or ‘braiding’ strands of life-writings is to highlight differences” (Cox et al., 2017, p. 43). For example, Lowan-Trudeau (2017) wove one strand (his Métis identity, living on reserve) with another (his European ancestry, living in the city) to examine his relations with place. Benson et al. (2020) included three voices woven together around three central questions, such as “Where do we come from?” The “knot” of their braid involved reflection on the métissage process. Additionally, Kovach (2018) explained that “Indigenous methodologies require exploration of identity, an ability to be vulnerable, a desire for restitution, and an opening to awakenings” (p. 388). As non-Indigenous co-authors, we are committed to these tenets throughout this decolonizing, reflexive methodology and hope that this comes across clearly in this article.

Our métissage study was created by Amanda as partial fulfillment for course requirements in a graduate level qualitative research methods course. The purpose of the mini study was for students to learn about different forms of qualitative research by exploring the different representation processes that could be used, often referred to as research genres (Hopper et al., 2008). Students wrote a weekly journal entry as they pursued a qualitative research project, reviewed exemplar research papers on a genre and then developed a mini study, with course-based ethics granted, drawing on the genre studied. During initial discussions with the course instructor (Tim), the students (including Amanda) explored the potential of a variety of genres such as autoethnography, confessional, and métissage to consider a phenomena of their choosing. Through dialogical responses to Amanda’s reflective comments, Tim suggested that Amanda focus on métissage as it seemed to capture their interest in working with others to explore the research phenomena of classroom inclusivity from a SOGI perspective. Amanda selected métissage because they were attracted to how it offered a space for multiple voices to share their lived experiences with inclusivity. Métissage is useful in this regard because it begins with a simple prompt and later gives space for participants to interact with each other, weave their insights together by building off each other’s stories, and making kin (Benson et al., 2020). The power of métissage, which flourished through this study, is summed up by Bishop et al. (2019):

The weaving is much like a braid. Three parts, individually shared, now woven together. The work of the individual becomes the weave of the collective. Once individual, now shared. Once individual, now community, once alone, now together. In coming together, the power of the collective becomes visible. (p. 14)

Benson et al. (2020, p. 40) claimed that conscientiously crafting personal stories deepens the understanding of the social conditions in which those experiences were rooted. They believed that métissage has transformational affordances for both authors and audience alike, which could be used to encourage educators (administrators, teachers, and others who work with children) to consider ways that their learning spaces can foster inclusivity and move towards decolonization.

In addition, métissage is useful in juxtapositioning the voice of the researcher as both observer and participant. Lowan-Trudeau (2017), for example, “explore[d] themes of diaspora and identity politics” (p. 510), through métissage, weaving Indigenous and Western perspectives in place to “[develop] many strategies to reclaim and to reimagine Indigeneity and community” (p. 519).

In my course paper (see Culver, 2022) I take on two roles, as researcher with my participants, and then as co-participant sharing and unpacking in relation to what we the participants say about inclusivity, our own experiences. In this confessional piece I reflect with Tim on the research process, braiding the conventional academic format with one that is more personal, encouraging the reader to interpret this duality through their own lenses. I am nervous about blending these two roles together—researcher and participant—and wonder how to switch between these two roles in a way that does not compromise the research.

I admit, too, that I am nervous to embark on researching using this methodology as a non-Indigenous person. I am reminded of Kovach’s (2018) words: “It gets back to knowing the community and investing in that relationship.” I am absolutely invested in the relationship with our co-participants (who are also my dear friends) and am committed to finding ways to share this learning with others so that we can do right by the students in our classrooms.

Cox et al. (2017) claimed that métissage embodies critical pedagogy by shifting the power dynamic and affording internal transformation for all those involved. They also claimed that métissage fosters critical dialogue around individuals’ reflections, more effectively recognizes various subjectivities, and makes learning more visible (p. 53).

Looking back, I note that this was very apparent in the meetings surrounding the métissage: both during the pre-meeting where we determined the writing prompt and during the meeting where we shared and began to weave our stories together. By allowing historically marginalized voices to share their/our stories, uninterrupted, the White, heteronormative, colonial patriarchy became more evident. This is what decolonization can look like, both in research and in the classroom. Their voices highlight the power imbalance that exists within the public school system. Creating space to hear their stories makes learning more visible, which begins to shift that power dynamic for the benefit of all who work and exist within the education system.

Métissage Research Question and Participants

The initial research question was, “How do we make classrooms more inclusive, specifically through a SOGI lens?” Tim suggested that this seemed like an effective initial research question, but due to the short timeframe of the mini study and the need to work with a group in métissage, the limit of a SOGI lens may not be possible. However, initially this SOGI lens really was the focus for Amanda and was a key part of their motivation to do graduate work.

In the conservative, religious household I grew up in and in the publicly funded Catholic school I went to, the word “gay” was only ever used in a derogatory way. I didn’t know what being

bisexual was until university, and the first time I heard the word “transgender” was in my second year of teaching, when I had a trans student in my class and wished I was more informed. Meanwhile, since as long as I can remember, I knew that my sexual orientation and gender identity did not fit within the cisgender norms forced upon me, despite the lack of vocabulary. Whenever I asked questions, I was silenced. My Grade 10 religion teacher told me that “if you are lukewarm, God will spit you out.”

The message from school was loud and clear: if you aren’t cisgender or heterosexual, something is wrong with you. As a result, my mental health suffered, and I did not feel a sense of belonging at school. I truly believed something was wrong with me, which I largely attribute to school not being an inclusive, representative space. While I consider myself lucky to have gotten out alive, I recognize that isn’t always the case. I wish my school experience was better and I wish I was better prepared entering my own classroom. Which brings me to the research question: How do we make classrooms more inclusive, specifically through a SOGI lens?

This desire to focus on a SOGI question became hard to pursue within the assigned 3-week window for data collection of the course. Amanda, through encouragement in the course journal interactions with Tim, recognized they could approach acquaintances who represented other marginalized groups, so Amanda settled for the more generalized research question: “How do we make classrooms more inclusive?”

Working with the constraints of limited time and a limited pool of potential participants, I recognized that I would likely work with participants who did not identify as members of the queer community and, as such, felt that the question needed to be more open-ended. Unfortunately, most of the queer teachers I knew were on medical leaves due to the anti-queer hate they were experiencing. Similarly, racialized teachers were also leaving due to racism regularly faced in their workplaces. Considering these limitations, and with encouragement from Tim, I knew I would likely take on one of the participant roles to bring a queer voice to the research but was disappointed that no other queer voices would be included for this particular study.

Amanda, then, approached participants who shared experiences of marginalization, recognizing that inclusive practices expand beyond the queer community and, in the end, benefit everyone. Amanda also wanted to include participants who all had experiences in classrooms, but not necessarily as teachers.

Luckily, I am a part of a friend group who met through advocacy work and who have since stayed in touch. I wanted to select participants with whom I had a prior relationship as this would enable the previous sense of trust from sharing experiences and knowing each other’s motivations that allowed us to take on inclusivity, something we had all struggled with from different perspectives. Without this previous sense of connection, trust, and kinship it would have taken time to foster the pre-existing collegiality. This collegiality allowed us to dismantle, or at least reduce the hierarchy that is inherent in researcher-participant relationships. I wanted to create a space for marginalized voices to be heard and, personally, disrupt the power imbalances I perceived in researching with participants. With this friend group, we frequently discuss social justice issues and shared frustrations with the lack of representation in education. I knew that conversations about inclusive spaces would flow naturally with this group, but worried that their own work and personal schedules would not align with the timeline of this research. Thankfully, both friends agreed to participate.

Both participants had experienced classrooms as teachers. One participant is also a parent of a child with a disability. The other participant self-identifies as Indigenous. Amanda’s voice was included as a queer teacher’s perspective. Participants have asked that no further identifying information be shared beyond what is given here in order to preserve their requested anonymity. As co-authors, we recognize that identities are intersectional and that these participants bring a variety of perspectives to this research, both individually and as a group.

During the Research Process

Initial Meeting

Two group meetings were scheduled, as well as a third, optional, meeting. This was not what Amanda initially anticipated as other *métissages*, such as that of Bishop et al. (2019) and those discussed in class, took place within one, singular meeting.

For my participants and I, scheduling the time to meet was going to be difficult as we all worked demanding, full-time jobs. Tim suggested offering three shorter meetings: one to determine the prompt, one to weave, and one to “tie the knot.” Putting faith in my professor, I agreed to three meetings. However, I was feeling anxious about finding the time and began to question if my participants would be able to commit to the meetings. It’s hard to braid three strands together if two of the strands aren’t even there and I didn’t have a Plan B.

Thankfully, the participants were able to make time for this work, adapting with the assistance of Zoom video conferencing. The intention of the first Zoom meeting was to explain the *métissage* process and to collectively determine a prompt. Amanda brought forward the following prompts, formulated in discussion with Tim:

- What do inclusive classrooms look like, sound like, and feel like?
- When do classrooms feel inclusive and when are they not?
- What are classrooms like when they are inclusive?
- Inclusivity or not: what were classrooms like for you?

Seeking participant feedback, the following prompt was decided upon: “What do inclusive classrooms look like, sound like, and feel like?” Participants were invited to respond to this prompt in whatever way felt comfortable to them and, if they chose to write, to consider a one-page maximum response, as we would be sharing and analyzing all our work collectively. One member asked if we could immediately begin to discuss the prompt to generate ideas. This caught Amanda off guard. Unsure on how to respond, Amanda discussed the idea with the group. They all consented and began brainstorming ideas. Ideas were also included in the Zoom chat, which later became part of one of the participants’ written responses. From the responses, the group identified a shared curiosity around perspectives of students, teachers, and parents, which was taken into consideration for their separate written responses.

*The initial meeting was intended to last no more than 45 minutes and I assumed we could finish it up in about 15 minutes—explaining how *métissage* works and deciding on a prompt couldn’t possibly take too long, especially with educators. Surprisingly, it ran for 80 minutes, 65 of which were on-topic. It had been a while since we talked outside of our group chat, so some of this time was spent catching up. I was nervous about guiding the conversation and switching from friend to researcher. This was my first time taking on a formal researcher role! With a shared interest in the topic, though, the conversation continued to flow, and my nerves began to fade. In my research journal, I wrote:*

“Am I taking enough notes? Am I recording properly? It’s hard to listen, respond, note-take all at the same time.”

I am glad that I took Tim’s suggestion and recorded this meeting with two separate devices (through Zoom and through an audio recording on a personal device). I also copied and pasted the Zoom chat into a Microsoft Word document, just in case. There was a lot of rich conversation that I didn’t want to risk losing because of technical errors. Despite the benefit of online meetings (i.e. ease of recording, ability to provide multimodal contributions), there was a shared concern about ethical considerations of storing information online: does anything ever really leave the Internet? While I was unable to quell those concerns (as I, too, shared them), it is something to consider for future online meetings.

Working With Prompt for Writing Our Pieces

With a prompt finalized, participants had 10 days to formulate their responses prior to our next meeting. In the métissages that took place within the span of one meeting, writing time was limited. Bishop et al. (2019) suggested limiting written responses to 300 words for sessions under 3 hours and 400 words for sessions between 1.5 to 2 hours, “five minutes is plenty of time to come up with a sufficient narrative to create a shared experience of métissage” (p. 7). With a timeframe set by our limited availability to meet, Amanda wondered if 10 days was too much:

“Ten days to write—that’s more than enough time! I can reflect on our first meeting, write, walk away, come back to it, edit, polish... Wait. Do I want their answers to be polished?”

I wrote this after our first meeting and laugh now looking back at it. We all ended up writing our responses in the 24-hours prior to our second meeting. There was plenty of time for reflection and for paying attention to how inclusion showed up in my own classroom over those 10 days, but life took over and took away time I thought I had to write (I was busy writing report cards instead). While it would have been more convenient to have everyone write at the same time within the limits of a set meeting, the freedom to write when and where was comfortable was what I personally needed for the words to flow. This additional time allowed me to think more purposefully about inclusive classrooms and to reflect on my own experiences in different environments, which I don’t believe would have happened with a shorter timeframe. If I had 15 minutes to write my narrative alongside everyone else, I can guarantee that I would have fumbled my words, left out important details, and produced work that could have used more time. Reading my response now, weeks later, I wouldn’t add or change anything. The words came to me in the comfort of my home, free from the pressure of finishing at the same time as everyone else. Being able to walk away with the prompt and write when it worked best for me, in a format that resonated with me, is an inclusive practice. As a participant, I appreciated this. As a researcher, I couldn’t help but feel the stress of a looming deadline and having 5 days from Meeting 2 to braid, analyze, and submit a final report.

Second Meeting, Sharing Our Pieces and Finding Our People

For the second meeting, which occurred in person, participants brought their written responses to share. Each written response took a different format: one person wrote a narrative, one organized their thoughts into a table, and one wrote a poem. This was exciting as it showed that métissage itself is an inclusive process. Amanda and the co-participants took turns reading their complete response aloud, listening for connections, emerging themes, and words that resonated.

I was immediately worried about how we would weave these three formats together. While listening to the first participant’s narrative, I felt a connection. I was listening to a story being

told, not a research project. The words they used resonated with my own experiences. Within the first breath, they shared,

“I try to be as careful with words as I can because once you put them into the universe, you can’t take them back.”

This makes me think about all the mistakes I’ve made as a teacher and how I wish I could go back and change past practice, such as doing round robin readings and not having conversations I should have had because of not knowing what to say. This participant also spoke to knowing who your “people” are. Finding your people seems to be a never-ending journey, but it feels like home when you find them. I have found my teaching people, my university people, my queer people. These are the folx to whom I can open up. I can be authentically me. I am currently sitting at the table with my people, which played an important piece in deciding what writing to bring to that meeting.

The participant also discussed spirituality, which initially made me uncomfortable because of my relationship with the religion that was forced upon me as a child. However, this discomfort shifted as I listened to their words: it’s about building connections. “One heart, one mind.” Lastly, they shared about the work of resurgence. Decolonization is the work of settlers; Indigenous folx are responsible for resurgence.

I began to think of how I can weave these words into my own classroom practices but am also aware that I need to consider how these ideas will weave with the words of the next participant. I was curious how this next participant was going to share their words, as they organized their thoughts into a table. I assumed they would read down the columns, like individual poems. However, they read across the rows, explaining what inclusion looks like, sounds like, and feels like for students, teachers, and parents. I found myself quickly taking notes, as this participant also added explanations as they went, ensuring we were able to understand the message they were trying to convey. I also started noting the themes of emotional safety, authenticity, and physical space. As I do not have children, I was really interested to hear a parent’s perspective. Their love for their children and passion for adapting to the needs of their students was clear. It was hard not to interject with connections and questions at this point.

Finally, I shared my response, written as a poem. I wish I had slowed down my reading so that certain words and phrases could linger, but I was excited to begin discussing and navigating the weaving of our work.

After reading, we as a group (researcher and participants) shared what pieces resonated with us and started making connections across the written pieces, but also to other personal stories that were not included in the writing. This sense of shared struggle, of shared experiences despite our differences, helped build kinship. This felt more important than deciding how to weave our words together, which was the initial goal of this second meeting. Realizing the limitations of a 45-minute meeting, Amanda asked the participants how they wanted to proceed with weaving our words together. As a group, they opted to identify themes, which would become the braids, and then Amanda would instead work independently on the first draft of weaving the braids. The themes we identified included: emotional safety, who inclusion is for/by, relationships, decolonization, authenticity, and spaces. The group highlighted some written words that spoke to these themes and decided instead to use our remaining time to discuss our experience with this process and connect over shared experiences.

After sharing our written responses, I grew nervous about navigating the next piece of the métissage. First, I was concerned with my ability to identify themes. I was also apprehensive about how much space I would take up in the discussion of themes. While I took my own notes during the sharing (despite wanting to give my undivided attention to listening to the others), I chose to let the two of them speak to their connections first, so that I wasn't putting ideas in their head. As they were speaking to what they noticed, I was able to join in. It was reassuring to hear that we were all noticing similar themes. One of the participants turned the conversation to the fact that none of us really touched on the financial aspect of inclusion, which can be a defining factor. I would not have considered this without them.

Before and after the second meeting, I recorded and transcribed my thoughts. On my way to the meeting, I reflected:

"Honestly, I'm a bit nervous because there isn't a set formula for how this works. So, the participants have all submitted their stories to me and I've printed them out, ready to go. (...) I think that just because it's such a flexible format, I'm really nervous going in, even though I know that the conversation is going to be a strong conversation. Honestly, I'm also a bit nervous about recording because we're meeting for lunch, so that it was a more comfortable location. (...) I am nervous. I don't feel like a pro, which is completely normal because I'm not, but I feel like I need to be. Where that pressure is coming from, I think, is really from myself and knowing that the people I'm working with, the participants, they do have high standards. They're my friends, so that's why they have high standards. But we'll see how it goes. We'll see how it goes."

Leaving the meeting, I commented:

"I just finished the second meeting for our métissage and I knew I would feel so much better once it was done because working alongside two other people is actually really helpful."

Embarking on a research project for the first time was intimidating; choosing métissage as a research genre helped grow my own understanding of what research can look like.

I also noted that the meeting location played a role in building comfort:

"Because we are friends outside of this, we had some time just catching up and building that level of comfort. I think in future métissages, something important to do is to build that relationship with the group of participants that you're working with. [Meeting #2] in a food-based setting was actually really nice. It took away the formal pressure that comes with a general interview format. One of my concerns with meeting where we did was the noise level. I'm curious to listen back to the recording of the session just to see if the transcript is going to be doable. I think it will be because it wasn't too loud but I know that background noise is personally distracting. I think in the future I'll probably do it in a quiet meeting space and maybe order in food or have coffee or tea available, just something a little bit quieter than where we were ... a little bit more private. But the place we went was the place that the three of us typically meet up at. I wanted to keep something familiar for us so we didn't have to stress over what we were going to order."

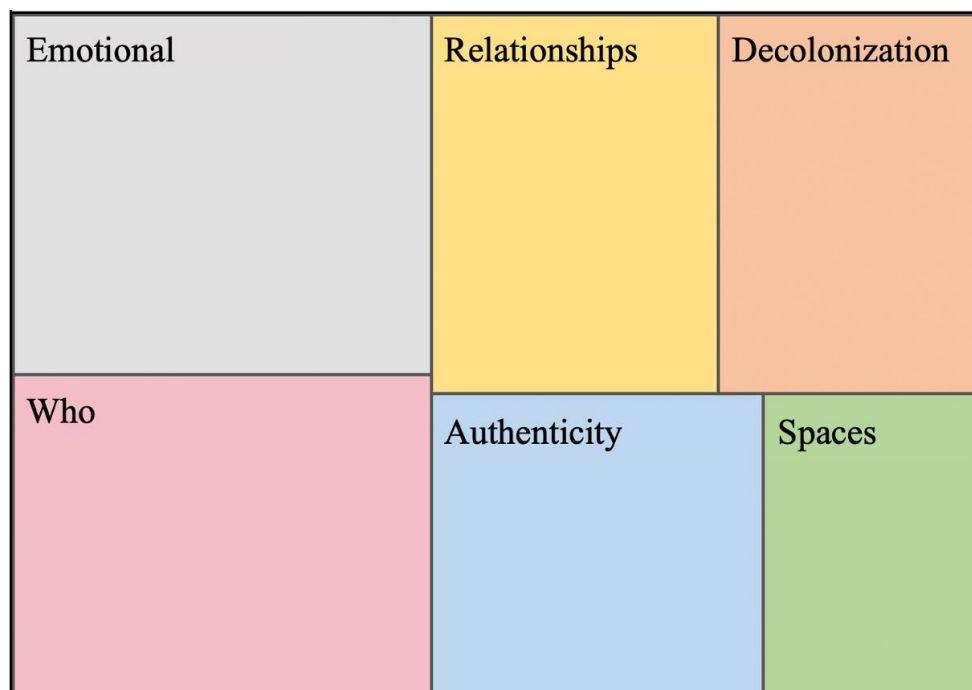
Weaving and Coding

Immediately after the second meeting, Amanda inserted the group's written responses into NVivo 14, that Tim had shown how to use in the research course, and began to code using the six

themes identified by the group. The process included the thematic hierarchy chart (Figure 1) to demonstrate how frequently these themes appeared across our work. Filtering by codes provided highlighted text organized by writer. Next, Amanda took the text for each theme and began to organize it in a braided fashion, using the sharing order that took place in the meeting (Person 1, Person 2, Person 3) where possible. Once the initial braiding was complete, Amanda shared this work asynchronously via Google Drive with participants to collect feedback.

Figure 1

Thematic Hierarchy Chart



Note: The coloured rectangles show importance by size, in terms of how often this theme came up in conversation, with the smallest these (Spaces) indicating least important and the largest theme (Emotional) indicating most important.

While it might have been faster to code by hand, I'm glad I tried NVivo for the first time. Had I done this by hand, I would have used different colors to highlight different pieces of our texts, which I would have then cut up and arranged into braids. NVivo made it easy to assign the different codes to the same text and the thematic hierarchy chart allowed me to quickly see the themes that took up the most space. I was surprised to see that physical space was the smallest piece of what inclusive classrooms mean to us. I wonder if we see elements of physical spaces, such as pride flags or gender-neutral washrooms, as symbols of performative allyship rather than true elements of inclusive spaces.

Write-Up Leading to Participant Private Performance Then Public Reading

Final Meeting and Performance

The final meeting, which was optional, was not able to occur for another 6 weeks and transpired after the completion of the course. In the meantime, to meet course deadlines, participants opted to work virtually and asynchronously in the shared document to review the braids of this métissage and share thoughts about the pieces or the process.

While I would have liked to have had time to meet with participants either online or in person for the third meeting, the asynchronous nature allowed time for us to digest the proposed braids, play with the words, and edit for understanding. One of the braids included pieces of a participant's narrative as they had written them:

“When do classrooms feel inclusive? When do they not? When they are led by Indigenous elders and knowledge keepers. When they are led by ignorant, problematic, narrow-minded folks who uphold the White heteronormative colonial patriarchy.”

In comments in the margins, this participant clarified what they meant and another participant offered different formatting, which the first participant agreed to edit to improve readability:

“When do classrooms feel inclusive? When they are led by Indigenous elders and knowledge keepers. When do they not? When they are led by ignorant, problematic, narrow-minded folks who uphold the White heteronormative colonial patriarchy.”

This type of collaboration worked for us because we were used to working like this and trusted that we wouldn't delete or edit each other's words without conversation; I might not take this approach with other participants.

We also noticed some repeated lines. This happened during coding and I decided to leave the repetitions for participant feedback. Participants noted that they liked the repetition because it emphasized what inclusion is all about:

“We teach students first, not curriculum. We are not empty vessels, waiting to be filled. We are whole. We are complete.”

Participants commented that reading our woven words was an emotional experience that needed to be shared. Despite this happening online, I wanted to meet with the group in person for a more formal “conclusion” to this process.

Creating the métissage, reporting on the process and writing a paper had met course requirements for Tim's graduate research methods course. However, Tim encouraged Amanda to pursue completing the study by creating a performance of the métissage. Approximately 6 weeks following the second meeting, participants met virtually to read the braid aloud and share any final feedback or reflections. Ideally the reading of the braids would have been recorded to be shared in an audio-visual format. However, participants expressed concerns around anonymity with using their actual voices. Many employers have fiduciary clauses in their employee contracts, which prevent employees from critiquing their employers. While Amanda did not believe any personal critiques of employers occurred in the work, calling for more inclusive practices might imply otherwise to sensitive employers. The participants recognize that inclusion is the work of everyone, and limitations are largely in place due to systemic barriers that were deeply woven into society. The participants did, however, offer their words to be read by others, an extract of which is in the opening section of this article (Culver & Hopper, 2023).

In addition to conducting a thematic analysis of the written pieces of the métissage, Amanda also recorded and transcribed the two meetings with participants to provide additional commentary to the thematic analysis.

When I was reading about métissage as a genre, one of my primary critiques was that authors rarely shared the completed braids. Bishop et al. (2019) stated that “métissage can be both an

event and artifact that could lead to individual and/or collective change” (p. 4). Considering that métissage can be an artistic representation of stories, I was disappointed to read examples focused solely on written text. If there was a way to capture the event of métissage, such as a video or recording, that could then be shared, the research genre quickly becomes more accessible. In the course journal, Tim agreed and suggested that, as course requirements were completed, we should explore ways of converting the métissage into a performance piece that could then be written about.

Within the graduate course, upon completion of our research studies, students were asked to share our work with our classmates. I took this as an opportunity to turn the braids into a performance piece. I chose the braid created around the theme of “emotional safety” as the one to perform as it had the largest area in the thematic hierarchy chart. I identified each speaker by fonts and colours chosen by participants of the study. A script was provided to classmates who volunteered to read. Others were able to follow along with the text, which was projected for display (see similar performance in Culver & Hopper, 2023). Hearing our words woven together was powerful. Immediately, I wondered how to share these braids with the world. Working with Tim, we then approached the participants with media consent forms to make a public performance of our métissage to be read by different people to protect their confidentiality.

Once participants gave permission for their words to be recorded and shared by other performers, I was excited. This meant that their words and ideas would be shareable and easily accessible. When I met with the performers to read the braids, I was able to sit and listen to our words come to life through other voices (see Culver & Hopper, 2023). As this performance happened well after the meeting where we first shared our words, I was able to notice new things. The performers' voices highlighted different parts of the braids compared to our initial reading, which helped me see some repeated phrases that I had skimmed over before. Hearing someone else read my own words was more powerful than anticipated. I remember thinking, “Wow, I wrote that?” Once the performance was complete, I initially felt at a loss for words. I was overwhelmed with gratitude for the participants choosing to write and share these words and for performers willing to bring the piece to life in a way that others could access. The voices blended well together, and their emotions reflected our own, despite coming from different backgrounds. I raise my hands to those who have helped bring this project to life. Hych'ka.

Final Confessional Reflection

In reflecting on the confessional tale process, Amanda returned to the initial research question: “How do we make classrooms more inclusive, specifically through a SOGI lens?” This was their goal to research in their PhD. However, the circumstances of doing the métissage, time, and access to queer-identifying colleagues who were able to do the research project, meant this was not possible.

To my surprise, the métissage process itself began to answer this question. After completing the métissage, it became clear that the first step to creating inclusive classrooms is recognizing the intersectional identities of our students. Marginalized voices were given space at the table for this métissage; our identities were recognized and welcomed. We listened with open ears and open hearts. By weaving our stories together, we created an intersectional voice for what inclusion should look like, feel like. The weaving also revealed that a culture of empathy and

understanding needs to be fostered in all classrooms. Similarly, métissage as a research genre also requires a culture of empathy and understanding.

Conclusion

The confessional perspective on creating the métissage offered what Denzin and Lincoln (2018) called the writer-as-interpreter insights, both on the co-meaning-making process for the participants as a group (including the researcher), but also for future researchers using métissage or confessional; in particular, insights on (a) how the researcher works within uncertainty, (b) a negotiated relationship within a friend group, and (c) the participatory process of the métissage process where the text is more genuinely created by the researcher with the participants. The intent of this confessional is to show, as Denzin and Lincoln (2018) concluded, “a radical, participatory ethic, one that is communitarian and feminist, an ethic that calls for trusting, collaborative nonoppressive relationships between researchers and those studied, an ethic that makes the world a more just place” (p. 80). As well, Douglas and Carless (2012) noted that the traditional (positivist) paradigm requires a separation between the researcher(s) and the participant(s), on the basis that any kind of personal involvement would (a) bias the research, (b) disturb the natural setting, and/or (c) contaminate the results. Further, Owton and Allen-Collinson (2014) on their confessional tale on researching with friends noted that more traditional ethnography using a realist approach would similarly see closeness between researcher and participant creating some type of contamination to a legitimate view of the phenomenon being studied. However, we as authors maintain that our analysis of the métissage agrees with Owton and Allen-Collinson’s (2014) contention that a close and trusting relationship prior to doing research is an asset for rich insights on the phenomena: “Emotional involvement and emotional reflexivity can provide a rich resource for the ethnographic researcher, rather than necessarily constituting a methodological ‘problem’ to be avoided” (p. 283). In the métissage, the close connection to the phenomena of the need for inclusivity that the researcher and participants have struggled with prior to doing this research, allowed the research process to happen over a short period of time, and to be rich in content in a way that those who do not suffer the challenges of inclusivity on a daily basis, need to access.

This confessional article embeds the Culver and Hopper (2023) métissage through the performance piece shared [via YouTube](#), but also foregrounds the voice of the researcher, sharing what actually happened for them, through different levels of emotional recall on the research process, adapting in relation to what literature recommends should happen. Messiness and anxieties were shared as a pragmatic process evolved that made sense within the realities of the researcher and the participants whose lives demanded different priorities from the research process. The highly confessional personalized account viewed from hindsight, journal reflections and ongoing conversations with Tim during the graduate course and subsequently beyond, may help to reassure other researchers to respect the dynamic of qualitative research. The confessional account reveals how the métissage process promoted a genuine collaboration process with words, phrases and themes selected and shaped by the participants, including the researcher, who came together around a common concern and commitment to promote inclusive spaces. Anxiety in doing research is to be expected for novice and seasoned researchers; however, the honesty in relation to process is not always promoted (Sparkes & Smith, 2014). In this confessional account the dialogic between reporting on Amanda’s anxieties around having time, having the expertise to do justice to their peers’ work, and the reflections on regrets on being part of the problem in their past, locates the researcher as in the research rather than standing outside. Linking to and moving on from the literature through personal accounts of what the researcher was thinking, offers valuable

autoethnographic insights on research process that is rarely neat, without tension, or easy to pursue. Returning to Cox et al. (2017), the *métissage* and the confessional insights offer an interwoven insight on the phenomena of inclusivity from the perspectives of three witnesses from marginalized groups, resisting grand narratives, instead celebrating the local and personal to inform a goal to decolonize how we see and act in the world, “a process of dialogue and action” (p. 53), to evoke a sense of empowering community praxis.

The Culver and Hopper (2023) *métissage* performance challenges those responsible for creating inclusive spaces to hear the voices of those who experience exclusion saying that they need to have someone to advocate for them; having supportive administration is crucial. A SOGI lens facilitates the recognition of gender diversity, so gendered language (such as “guys” or “boys and girls”) should be minimal, if not completely obsolete from classroom spaces. Those who enter learning spaces need to see themselves and others reflected in materials and resources. While this is beneficial as seen through a SOGI lens, inclusion, in turn, benefits all students, whether Indigenous, disabled, or from any other marginalized group. Inclusive spaces assist in “finding your people.” These spaces move away from colonialism and are instead built on relationships. Students first, not curriculum.

Regarding inclusive practices, it is worth sharing some of the comments and observations made from participants throughout the study, particularly during Meeting 2. The financial aspect was largely missing from this work. Governments and school districts need to invest in equitable resource distribution. All physical learning spaces need to be accessible to all, rather than adapted as an afterthought. Students should not have to transport a ramp so that their wheelchair can enter a space. Buildings need to be in good repair for the health and safety of all those who enter it. Financial equity allows access to resources that are culturally sustaining. There is no reason for picture books with racist imagery to enter the hands of students. Toss those books and spend the money on books that do not harm students’ sense of being who they are. Inclusion is a collective effort.

Some models of schooling assume that the learner is an empty vessel, waiting to be filled. Inclusive practices recognize that the person is already whole (Freire, 1985). They are complete. We are not starting from scratch. The system should not have to be turned on its head to meet the needs of the learners entering the space. Accessibility to education should not be an afterthought.

Speaking to the process of the *métissage* itself, participants noted appreciation for the inclusive nature of participating. We all loved seeing the different formats each of us brought to the second meeting: a narrative, a chart, a poem. As noted by others (Bishop et al. 2019; Cox, et al. 2017) the process of *métissage* met the needs of participants by allowing them to engage in a way that made sense to them. One participant concluded our second meeting with, “I feel, like, the warm and fuzzies just from the process.” This process, much like inclusive practices, encourages the cultural teaching of listening with three ears: two on your head and one in your heart. Empathy is at the heart of inclusion.

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A Review of *Engaging With Meditative Inquiry in Teaching, Learning and Research: Realizing Transformative Potential in Diverse Contexts*

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Inquiring into the role that education may play in shaping an individual and thus the larger society is an ongoing quest. Being aware of the epistemological and ontological violence that is continued through past and present modes of colonized, neo-liberalized, materialistic education, educators often strive to invite education that may create spaces for healing and holistic learning for diverse students. However, such efforts towards transformation could be personally taxing and difficult amidst the ongoing demands of teaching, learning, and research. The challenge also lies in exploring one's understandings of self-in-relation—this requires a reflexive, dialogical inquiry into how one engages with/in education, and larger world.¹

The question arises: Can the transformation of self and society be imposed externally, or does it require change in one's own consciousness as a relational human being?

Ashwani Kumar posits meditative inquiry as one way that may help educators in reconnecting with the(ir) selves and empower them to engage in transforming consciousness (of self and hopefully of others) by embodying this practice with/in education and life. The edited collection entitled "*Engaging With Meditative Inquiry in Teaching, Learning and Research: Realizing Transformative Potential in Diverse Contexts*," weaves Kumar's theory of meditative inquiry with thought provoking illustrations by Adam Garry Podolski and with the beautiful poetic and aesthetic expressions that are rooted in diverse cultures including ancient Indian traditions and Indigenous ways of knowing.

This book is published as part of the Studies in Curriculum Theory Series. In the Foreword to this book, William F. Pinar, the series editor and a key curriculum theorist, notes that this book is an authentic and important source intended to inform scholars and doctoral and master's students about the increasingly complex field of curriculum theory. Pinar highlights various forms of Kumar's meditative inquiry and characterizes its "personal" form as a "conceptual cousin" of his method of *currere* (p. xii). He illuminates this connection by quoting Kumar who states that meditative inquiry "promotes existential investigation into the deeper layers of one's own thoughts, feelings, and actions . . . [that] are never isolated from the people and world around us" (p. xxi).

In the Introduction, Kumar expands on the scope and holistic nature of meditative inquiry by stating that meditative inquiry encourages us to "go beyond . . . meditation practices and mindfulness-based activities" (xxi). He characterizes such approaches to promote mental health and well-being as superficial and influenced by capitalistic culture as they merely focus on reducing stress to enhance one's performance to fit into social and economic systems. In contrast, meditative inquiry, as Kumar claims, is a deeper, existential and dialogical inquiry, that encompasses "a range of questions and themes that touch philosophical, psychological, spiritual, cultural, ecological, aesthetic, and political dimensions of exploration" (xxi). The expansive

dimensions of meditative inquiry are further evident in its methodological span that, as Kumar explains, shares grounds with theoretical orientations and discourses that are informed by Indigenous philosophies, critical theory and pedagogy, postmodernism and poststructuralism, autobiography, existentialism, phenomenology, hermeneutics and more (xxiii-xxiv).

The richness of diverse perspectives through which one can engage with meditative inquiry is reflected in the scholarly essays of contributing authors from African, Asian, Buddhist, Indigenous, and Western contexts. The book is comprised largely of three parts: the first includes 16 chapters, each of which present authors' understandings of Kumar's meditative inquiry and its embodiment in their practices of learning, teaching, research, and living life across various disciplinary and philosophical orientations that range from law, dialogic research and teaching in university and K-12 contexts, Africentricity in adult education, martial arts, music, arts, positive psychology, teacher education, critical discourse analysis to synergies with hermeneutics, Buddhist praxis, Indigenous ways of knowing, and exploration of poststructuralism, cultural and intergenerational trauma and more. In the second part of the book, five renowned educational researchers namely, Ardra L. Cole, Michael Corbett, Anne M. Phelan, E. Wayne Ross, and John J. Guiney Yallop have responded to the collected essays presented in the first part. Their responses highlight the value this book brings as they identify meditative inquiry as a "way forward" (Cole, this volume) by connecting it with their scholarly pursuits in the fields of educational research, Queer education, teacher education, and critical education. The third part of book includes reflections by contributing authors, an epilogue by Kumar, and a poem by Emiyah Simmonds, one of Kumar's students, who highlights the centrality of welcoming lived experiences and "focus on the learner as a whole" (p. 295) in meditative inquiry in her poem, "An Ode to Meditative Inquiry and Dialogue."

Emphasizing social and relational connectedness through raising epistemological, ontological and axiological dimensions of meditative inquiry, the collected works in this book invite non-Eurocentric perspectives that challenge colonialist, neoliberal and capitalist pursuits, and offer ways to decolonize, Indigenize, and reconcile our ways of being in the world as we engage in teaching, learning, and research. Showcasing the contributions by scholars from multiple educational contexts and multi/inter-disciplinary areas, this book presents harmonizing insights that may create dialogical spaces to inquire into one's intentions of engaging in teaching, learning and research and rejuvenate one's relationship with self and other(ed) to reimagine and recreate a socially and ecologically just world!

You are also welcomed to engage in dialogical meditative inquiry through viewing the recordings of a 2-day virtual conference of meditative inquiry that was hosted in August 2022. It is through this conference that I came to know about this book. Some of the themes that were reverberated through presentations by contributing authors and by the editors of various educational journals, reaffirmed the potential of meditative inquiry for therapeutic and spiritual endeavours that are critical to invite holistic education into educational institutions. These passionate presentations that transpired through each contributor's unique explorations with meditative inquiry were diverse, yet all echoed the significance of meditative inquiry. Engaging in meditative inquiry opened up spaces for these educators to inquire into difficult issues that may

require unlearning and listening with purpose—in stillness, in silence—to engage in reflection and dialogical inquiry that ensures awareness, promotes critical thinking, values vulnerability, questions all discriminatory -isms without any fear, and calls for action with/in moments of teaching, learning, and research to reimagine *just education* that may lead to empowerment of self and other(ed). The video recording of this conference can be accessed through this link: https://www.youtube.com/watch?v=hqVoziiuD3E&list=PLfVjDB_dQhEomgiYYmBJKj1nvD1oGBwaf

Though my own introduction to Kumar’s meditative inquiry is relatively new, I see that the key insights resonate well with my own scholarship of (trans-multi)culturally responsive education that amalgamates critical and transformational education perspectives with culturally responsive teaching (Raisinghani, 2019). Meditative inquiry focuses on dialogical, existential inquiry and lived experiences to bring holistic education by transforming one’s consciousness. In the same vein, a (trans-multi)cultural education emphasizes relational caring, critical cultural consciousness, and empathetic relationships to invite socially and ecologically just, responsive education that may empower one as a (trans-multi)cultural being who is able to relate with self and others as a member of one human kin, and who values relational connectedness with more than human world. Although meditative inquiry and (trans-multi)culturally responsive education are guided by different educational discourses, I realize that Pinar’s *currere*, Ted Aoki’s lived experiences, and the insights of Indigenous and diverse cultural ways of knowing are common threads that conceptually intertwine both of these. Thus, I feel that as Kumar mentions, “The way of meditative inquiry is not new; it has always existed” (p. xix). You may also see its parallels within your own teaching, learning and research. Through this book review, I extend Ashwani Kumar’s invitation to experience and embrace the transformative potential of meditative inquiry to all readers as it “is an exploration within oneself and of how one is connected to life [and education] relationally, ecologically, economically, politically, and culturally” (xxix).

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¹The play of word/world as wor(l)d is my own thought as I feel that many times, we just rely on the written words rather than experiencing the world so it's an invitation to see that they inform each other. And I think that meditative inquiry may offer one such opportunity.

A Review of Klein, N., & Steffoff, R. (2021)'s *How to Change Everything: A Young Human's Guide to Protecting the Planet and Each Other*

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When we know that children between the ages of 5 and 17 spend most of their waking hours in schools, we, educators, should be troubled when a book written for youth about climate change only dedicates six pages of its 300 total to the role that schools can play in mitigating the climate crisis. Yet in Naomi Klein's (2021) most recent book, *How to Change Everything: A Young Human's Guide to Protecting the Planet and Each Other* (co-authored with Rebecca Steffoff), that is exactly what readers will find. In this work, Klein effectively recalibrates the era defining *This Changes Everything* (2014) towards a younger generation. In doing so, it becomes clear that she has given up on schools' abilities in the West to shift societies *en masse* towards cultivating the skills, attitudes, and knowledge for climate change mitigation and adaptation. Instead, supported by Rebecca Steffoff, an author with an extensive catalog of young-adult nonfiction publications, *How to Change Everything* is a story about how we got to critical trajectories of global heating, and presents case studies of the individuals that stepped beyond the norms of a child—and the school day—to challenge government policy and business practice.

How to Change Everything comes after a string of era-defining books from Klein that has seen her rise to prominence, beyond just activist circles, to enter the rare sphere of public intellectual. Klein's previous writing, such as *No Logo* (1999), illuminated a generation to the impacts of globalization and corporate capitalism and *The Shock Doctrine* (2007) coined the term *disaster capitalism*, which was described as a doorway for ramming through neoliberal reforms. *This Changes Everything* (2015), a multimedia project, captured the multitude of ecological violence perpetrated on the planet through extractivism, and more recently, *On Fire: The Burning Case for a Green New Deal* (2019), presented a case for how the Green New Deal enacts meaningful change to mitigate and adapt to climate change, inspired by the climate strikes of 2019. In *How to Change Everything*, Klein has shifted audience, speaking directly to youth.

As a school leader in public education, I came to this work looking for a book that would guide my work as an educator and mentor, a text that would educate and inspire youth to engage in climate action. I have been an avid reader and supporter of Klein's work over the last two decades, which has informed my worldview, and consequently the content I facilitated in my classroom. *This Changes Everything* (2015) in particular included case studies and a documentary of the same name which I used in conjunction with the IPCC (Intergovernmental Panel on Climate Change) report in the lead up to the 2019 climate strikes that my learners and I participated in. So, I thought a book written by Klein aimed at youth would surely include guidance on how to support ecological literacy through public education?

Not so. Instead, the book is almost entirely focused outside of school. The book maps out three sections, which focus on the past, present, and future of climate change, with specific emphasis on a North American audience. The text is written for and accessible to a high school and middle years audiences, particularly those who are already aware of and concerned about climate change, as well as those who are curious to learn more. One of the assets of the book which permeates each of the temporally organized sections is that the authors are particularly adept at making an emotional connection with the reader, beginning by speaking directly to causes at the individual level, before making the case for collective action as key to pushing government

towards climate policy. As with *On Fire* (2019), Klein continues to highlight a Global or National Green New Deal as the horizon to which all climate action should work towards. Research on the teenage brain shows that adolescents are keen to explore their identity, to take risks in search of boundaries, but do so within larger cultural spaces built and occupied by their generation (Blakemore, 2018). In the first third of the book on *Where We Are*, Klein and Steffoff frequently speak directly to the reader stating for example that “kids like you have shown that they are fierce and determined defenders of life on earth” (p. 28). Once outlining how youth can join an already developing movement that rejects ecologically devastating norms established by previous generations, the authors then provide a path for youth to mobilize.

Early passages in the book detail a succinct and engaging case for why youth should care about the climate crisis, and what they can do about it. *This Changes Everything* (2015) preceded the 2019 global climate strikes, presenting an outstanding case of how capitalism was linked to climate change, concluding with a call for sustained democratic action in the form of massive civil disobedience. As with Klein's 2015 book, which situated capitalism in its crosshairs, the 2021 text continues this approach. It is rare for capitalism to receive rebuke in a youth non-fiction text, and so Klein and Steffoff should be praised for accessible historical analysis which makes the link between economic systems (particularly neoliberalism) with carbon emissions and the challenges in reducing fossil fuel extraction and consumption. The established relationship between capitalism and current economic and ecological crises here lends well with what research is telling us in a resurgence of anti-capitalist sentiment in Western democracies. For example, in Britain, the Institute for Economic Affairs (IEA) has found that nearly 80% blame capitalism for the housing crisis, while 75% believe the climate emergency can be blamed on capitalism, and 72% back sweeping nationalization of private infrastructure such as railways and energy production. All in all, the study states, 67% want to live under a socialist economic system (Institute for Economic Affairs, 2021). This data is mirrored by studies in the United States (Harvard University, 2016) and Canada (Innovative Research Group, 2021).

Navigating the waters of how to talk about capitalism in classrooms can be difficult, but the critique in Klein and Steffoff's book is embedded partially in case studies, such as Hurricane Katrina, which the reader is encouraged to extrapolate into other natural disasters. This offers an important signpost for the classroom teacher, who can guide learners through understanding how capitalism has both exacerbated climate change and continues to undermine mitigation and adaptation efforts, through using concrete examples and voices of those impacted. Further links are made by further exploring Rich's (2019) *Losing Earth* that detailed how business and government, led by the United States, pivoted away from addressing carbon emission reductions in the late 1980's. As with Rich (2019) there are passages on neoliberalism, a mutation of capitalism spearheaded by Ronald Reagan and Margaret Thatcher, presented to the reader with clarity, yet without setting aside the complexities of economic policy. The authors know the value of the teenage reader being exposed to these ideas and understanding them in order to solidify their grounding of how capitalism and climate change are entwined. The linking of capitalism to environmental and wider social justice causes is central to their thesis.

The midsection of the book contains a critique of capitalism as tied to the erosion of democracy, a belief which Klein and Steffoff determine is absolutely crucial as a lever for pressuring government into climate action. A particular strength of *How to Change Everything* (2021) is the careful and accessible presentation of the importance of democracy, outlining lawful and actionable moves that youth can make. There are two avenues that Klein and Steffoff take in

providing a pathway for action: firstly, youth can continue their involvement in climate strikes, can boycott products or choices that lead to excessive carbon emissions, can get involved in politics, and can spend time in nature; secondly, the authors highlight, without explicitly encouraging, powerful forms of climate action that youth may decide to become involved in, or could indirectly support, such as Extinction Rebellion who engage in civil disobedience and suing government and business. This careful balance allows Klein and Steffoff to sidestep accusations that they are attempting to radicalize youth into civil disobedience.

A presentation of why climate justice must be tied to the mast of democracy, uniting the intersecting elements of climate change, with poverty and racism, aligns particularly with the Sunshine Movement. These individuals, while “too young to vote, took a passionate interest in politics” (p. 244). The Sunrise Movement organized sit-ins of politicians as a way to both highlight the lack of climate action, while calling for a Green New Deal in the United States. What was particularly powerful about their actions, write Klein and Steffoff, was that they “offered a story about what the world could be like after a deep change, and they offered a plan for how to get there” (p. 251). The Sunrise Movement is heralded as a model for youth democratic action.

“Individuals alone cannot bring about the sweeping changes we need ... government, business and industry... must also make very different choices” (p. 56), which Klein and Steffoff claim will be achieved through collective democratic action. The New Deal and the Marshall Plan, two historical precedents that involved the mass mobilization of funds and people towards infrastructure projects in the mid-twentieth century, are the two political projects that are detailed to emphasize that large scale infrastructure work and the money to finance them has been possible in the past. The alternatives that Klein and Steffoff allude to include more examples of disaster capitalism (citing for example in New Orleans, following Hurricane Katrina, where a natural disaster caused by climate change was used as a trojan horse to privatize and gentrify parts of the city that excluded poor and racialized groups), and eco-fascism (an ideology that blames and seeks to persecute peoples and nations with high populations or high carbon emissions). The close of an historical analysis leaves the reader with one pathway, that only democratic social movements that intersect with social and economic justice can turn the tide of climate change.

The shadow of climate change activist and Generation Z figurehead Greta Thunberg looms large throughout the text. Klein and Steffoff clearly consider the potential that lies with Thunberg, a youth whose path to activism began in her teenage years. If, as suggested, “young people are grit in the gears of the current system” (p. 162), then Thunberg is the proverbial sugar in the gasoline tank. In the years since her individual protest outside of the Stockholm National Parliament, Thunberg has been catapulted into the spotlight, writing books, speaking at conferences, and leading a series of climate strikes replicated globally, where millions of youths have seen an individual begin to have demonstrable impacts on government policy. Had COVID-19 not forced many youth activists indoors for an extended period, the climate strikes of fall 2019 could certainly have grown in participation and frequency. While the authors may have started this work prior to the global pandemic, *How to Change Everything* has the potential to operate as a catalyst for re-engagement as we emerge from quarantine, rather than a work that can sustain the movement.

And what of public education? Yuval Noah Harari bluntly detailed in his chapter on education, “21 Lessons for the 21st Century” (2018), the public school student might be well advised to ignore the adult, and follow their own path, with a focus on general life skills that can broadly fit under the “four C’s”: critical thinking, communication, collaboration, and creativity. In many ways, these all fit well with the present and future work of climate action presented by Klein

and Steffoff. As I have written elsewhere (Burton, 2019), these authors are right to be cautious of the role of Provincial curriculum documents in guiding K-12 learning around climate change, as learning outcomes or standards do not adequately meet the need of prompting educators to design learning experiences that pertain to issues of climate justice. Recent research from Learning for Sustainable Futures (LSF, 2019) outlined that the Canadian public is under educated on climate change, but keen to see a school curriculum that is more reflective of the needs of humans and the planet. Of concern was that only a third of reporting teachers in the LSF report touched on climate change education per semester or year, and most of this group does so between just 1-10 hours per year. There was, however, an awareness that more should be done, with 81% of surveyed teachers reporting a need for all educators to integrate climate change education into their classrooms, and 82% of non-teaching respondents in Canada supporting such moves (LSF, 2019).

In a typical high school subjects are siloed, with little curriculum content explicitly engaging with one class to the next. A North American high school student may visit four to five different classes in a day, each with different teachers. Yet, tackling a problem such as climate change will require the collaboration of diverse skill sets, not just those in the domain of science, engineering, or mathematics (Incropera, 2016). So, one of the questions might be, where would climate change education and a text like *How to Change Everything* (2021) fit in a school? Is it a social studies issue because of the impacts on people and society? Or should it fall within science, owing to the understanding of the atmosphere and relationship to weather? The use of story is a powerful motivator in changing behavior, so should it sit within the English language arts curriculum? This is not to mention rich content that the book could offer in the mathematics, career development or health education classroom.

Climate change education that encompasses mitigation and adaptation should be for all learners. Educational leaders and practitioners must not allow it to be pushed to the margins of the school day, where youth are forced to engage with the content on their own time through extra-curricular experiences. Instead, educators need to recognize that climate change will increasingly impact societies and individuals, demanding it be drawn into a variety of learning environments during the school day, and across all subject areas, in ways that go beyond theory and into places and spaces which allow youth to become involved in their communities by raising awareness and becoming politically active. Us adults might do well to read this work and think about utilizing the text, in whole or part, across the curriculum, as there are few contemporary books that articulate as powerfully and eloquently as Klein's and Steffoff's work does, without pulling punches.

It is an unfortunate omission, then, that the work that educators and schools were engaged with that laid the groundwork for the climate strikes to take place was not included. It is wrong for Klein and Steffoff to ignore the decisions of classroom teachers to bring issues of climate change into schools, to create space for discussion and action, whether during compulsory senior years courses, or on the periphery of the school day through extracurricular activities. A failure to acknowledge the work of activist teachers neglects the revolutionary potential of public education (Giroux, 2001; McLaren, 2005; Simon, 1992), which needs to situate itself as central to the cultural transformation that wider Western society needs in order to shift into a just transition. Beyond classroom instruction, there is also a role for the activist teacher in pushing school boards towards more green policy. In *On Fire* (2019), Klein includes public education as a "green job" with opportunities, not just in the classroom, but also in transportation and school building heating and powering that can play a leading role in a just transition away from a fossil-fuel-dependent society. This only underscores how strange the absence of school to climate action is in this text.

Further avenues left unexplored in the book are the connections between the role of public education in reconciliation between Indigenous peoples and settlers. “Sacrifice zones,” a term first articulated by Klein in *This Changes Everything* (2015), spoke to fossil fuel extraction and environmental degradation as targeting specific communities inhabited by racialized peoples, the benefits of which would go to White urban settlers. When the stories of Indigenous land defenders at Standing Rock in North Dakota and Heiltsuk in British Columbia are highlighted by Klein and Steffoff, there should be a stronger link presented in how acts of solidarity supporting these efforts could be brought into schools and classrooms (the current struggles of the Wet’suwet’en in British Columbia are one such example here).

A recent study by Yale University (2020) found that two out of three millennials or those younger “strongly or somewhat” support climate activists, and according to the American Psychological Association (2017), schools can expect to see increasing prevalence of “eco-anxiety,” a new mental health issue driven by the fear of climate catastrophe. Neither of these reports should surprise, as youth stand to lose the most from an unlivable planet, and have the least interest or investment in the cultural and economic status quo. It is time we started listening to the planet, and listening to those who will inherit the mess. Klein and Steffoff do not see schools as places that are able to meet either the needs of youth or the planet. The question educators must ask themselves is whether their primary responsibility is to the youth in our care and their future, or government documents that seek to preserve an economic system driving the collapse of planetary systems? We have known the science of climate change for a long time; it is long overdue that we start aligning what happens in schools with the “inspiration, ideas and tools for action” (p. 7) held within the pages of *How to Change Everything* (2021).

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**A Review of *Kaandossiwin: How We Come to Know Indigenous Re-Search Methodologies*
(2nd ed.)**

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In her book *Kaandossiwin: How We Come to Know Indigenous re-Search Methodologies* (2nd ed.), author Kathleen E. Absolon (Minogiizhigokwe) divides her writing into two parts. Part 1 is about engaging Kaandossiwin in re-searching, and Part 2 is about wholistic re-search methodologies. In the preface, Absolon explains, “*Kaandossiwin* is an Anishinaabe word that describes a process of how we come to know—a process of acquiring knowledge” (p. xvi). She privileges, honours, and celebrates several Indigenous academics throughout the book. Her reference list at the end provides the reader with many resources to help them on their re-search journeys.

As an Indigenous graduate student, reading this book was a healing journey for me. The author writes how graduate students in her courses often come to her classes terrified of research because of the elitism and jargon in research discourse. Like her students, I found myself feeling terrified prior to, during, and even after my research courses. I scanned the syllabuses in my courses for articles and discussions on Indigenous research methodologies because I was seeking a connection to other Indigenous people in the academy. I had difficulties connecting to colonial research methodologies that I read about, and this book provided answers to why I struggle to connect with colonial research methodologies: These colonial research methodologies do not connect with my worldview as an Indigenous student.

In Part 1, Absolon explores engaging with the process of re-searching with Kaandossiwin. She figuratively offers the reader a cup of tea and some bannock as they begin reading. As a Cree woman I understand this approach to starting something “in a good way.” I often found myself drinking a cup of tea as I engaged with the chapters of this book. I would also light a smudge before reading this book. Absolon’s writing style provided a reading experience that felt like having a conversation with the author herself. I found it so personal that she engages in conversations throughout the book with many Indigenous academics. One of the foundational topics Absolon writes about is the painful history of research that has been done on Indigenous peoples and communities. From this topic she transitions into healing from colonial research trauma. In Chapter 4, Absolon provides a wholistic four directions search pathway for the reader as a planning guide using 12 beads as the framework. The eastern direction (Beads 1 to 4) includes vision, purpose, principles, and direction. The researcher is challenged to identify their vision—what are they looking for? With the second bead, the researcher identifies their search and generates possible question(s). The third bead stage involves gathering existing knowledge and searching for literature. The fourth bead involves envisioning a wholistic methodology for how to conduct the search. The southern direction (Beads 5 to 10) includes ethics, relational accountability, and gathering. With Bead 5, the researcher asks what principles and ethics will guide them and how? With Bead 6, the researcher asks who they will talk to for gathering knowledge, experiences, and stories? With Bead 7, the researcher asks how they will gather? During Bead 8, the researcher attends to ethics and informed consent. With Bead 9, the researcher identifies conflicts, such as potential tensions or conflicts of interest. With Bead 10, the researcher identifies safety issues—ensuring people in the process are both safe and well. The western direction (Bead 11) includes knowledge gathering, meaning making, and knowledge building. The northern direction (Bead 12) involves knowledge sharing and mobilization. Here Absolon humbly

leaves the reader with a statement of intent: “My intention has always been to leave good footprints and landmarks so that those coming behind me would have a softer trail to travel while employing, journeying, articulating and affirming Indigenous methodologies in how we come to know” (p. 127). I think this statement portrays the importance of using Indigenous methodologies for the next generation of Indigenous graduate students.

In Part 2, Absolon explores wholistic re-search methodologies. What I really appreciated about this section is the use of visuals: Absolon’s petal flower, which she uses as a wholistic framework. The petal flower framework encompasses the roots, flower centre, leaves, stem, petals, and environment. The roots of the framework represent the grounding of the search. The flower centre represents the explicit description of the importance of self to the search. The leaves represent the explanation of the journey, process, and transformation. The stem represents the methodological backbone and supports. The petals represent the diverse ways of searching for knowledge. Last, the environment of the petal flower refers to the academic context. In this section, Absolon reviews journal articles, book chapters, and dissertations published in the last decade and organizes them into the following areas/petals: spirit/vision, heart: relationships, reciprocity, and community, mind: respecting Indigenous knowledge, and body: doing, working, and creating. One of the complexities explored in the spirit and vision section is how some spiritual knowledge cannot be written or shared in written text. One interesting learning from the section on heart is that most of the Indigenous searchers Absolon worked with had pre-existing relationships with their re-search participants because relationships are a resource for Indigenous re-search. Within the mind petal, Absolon states that we need to privilege Indigenous scholarship to develop Indigenous methodologies. The petal body represents the exploration of physical enactments of the re-search process because the exclusive use of written words does not encapsulate a culture that is experiential.

In reading a book about Indigenous methodologies, I am reminded of the many trailblazers (as Absolon refers to them) that have made space for Indigenous ways of knowing and being in the academy. Absolon does, however, provide some cautionary tales to the reader about the experiences Indigenous re-searchers have and will face within the academy. The colonial environment in the academy is resistance to the changes of Indigenous resurgence. Indigenous re-searchers will experience fence and gatekeepers within the academy that want to privilege Western forms of knowledge production. Indigenous re-searchers are reminded of the importance of who makes up their committee. If they cannot have an all-Indigenous committee then non-Indigenous allies are crucial members. Other prickly areas she explores include appropriation, sacred knowledge bundles, quantitative research, Western standards and measurement in research, and methodology traps.

In the last chapter, *Leaving Good Footprints and Winding Down*, Absolon provides several key elements for conscious Indigenous re-researchers using the petal flower framework, some of which I will highlight here. Within the roots, the reader is encouraged to prioritize Indigenous knowledge in the re-search. Within the flower's centre, the reader is reminded to know your location on the re-search journey. Within the leaves, the reader learns to travel journeys that are emergent and transformative. Within the stem, the reader is challenged to confront colonial history and to unpack its impacts. Within the petals, Absolon suggests that researchers use culturally relative methods. Last, within the environmental contexts, researchers should make strategic decisions about obstacles and gatekeepers within the academy.

To conclude, I offer thanks to the author for the reminders to include myself in my research story, to re-member my relations, to unpack the impacts of colonial research trauma, and to connect with other Indigenous academics. These are all important reminders for both Indigenous and non-Indigenous searchers looking to engage in wholistic methodologies. Just as she starts the book in a good way, Absolon also ends the book in a good way by sharing that Indigenous re-searchers are successfully defending their theses and fueling Indigenous knowledge resurgence.

Reference

Absolon, K. E. (2022). *Kaandossiwin: How we come to know Indigenous re-search methodologies* (2nd ed.). Fernwood.