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## JANUARY 2024

the plant

sits in the windowsill

summer

fall

winter

spring

summer,fall,winter,spring  
summerfall

winter

succulent

surviving also on

small amounts

“Just enough to get the soil damp!”

as the 8-yr-old carefully administers sink water

it won't outgrow its pot

anytime soon

i thought it would be dead by now

If it were up just to me it would

A second look

its spotted

dark green

spiny stalk

reaching higher?

maybe not

maybe a new pot

just in case

**Sarrah J. Grubb**

*Indiana University Kokomo*

# HOW TO READ A BLANK PAGE OF WRITING: ACKNOWLEDGING AND CELEBRATING THE WRITING POTENTIAL IN EVERY STUDENT

By Joseph David Wiederhold  
*Provo High School*

Consider with me the blank writing pages in your life, waiting to receive the written word. Crisp, white paper or the blinking cursor against an empty document, every writer must confront the blank page.

As a writer, I know how much energy it takes for me to overcome a blank page, and I know how vulnerable it feels to have birthed a weak draft that isn't strong enough to survive others' scrutiny. As a teacher of writers, I know the exponential increase of energy required for me to help a student overcome their blank pages, and I know the restraint required to not impinge on their vulnerable writer identities with my scrutiny.

Much of my early teaching career was spent trying to overcome students' blank pages. Kelly Gallagher's (2006) *Teaching Adolescent Writers* shaped the way I approached reluctant writers as a young teacher: I offered students choice in writing topics to make writing more authentic (p. 91); and I followed Gallagher's admonition "that we ignore the mandated discourses until we have had a chance to help students warm up to writing" (p. 93). Following the National Writing Project tradition, I implemented informal scribble time writing with great success (Wiederhold & Dean, 2020). And yet, there is no way to eradicate the blank page of student writing.

My work seeks to bolster the empathetic foundation on which writing interventions sit because if teachers use existing strategies with students but start with a better understanding of what can be "read" or understood from students' blank pages, I believe existing strategies will be more effective. And reading a blank page begins with realizing that not every blank page says the same thing.

There are myriad reasons writers produce blank pages: anxiety, fear, procrastination, perfectionism, apathy (Prather, 2022). Practitioner scholarship responds with brainstorming strategies, drafting strategies, collaboration strategies, mentor text study, and process approach (Dean, 2021). I spent years honing my craft in implementing effective writing strategies and practices, so as a young teacher, I took every blank page as a personal and professional challenge and an inability to overcome a blank page as a personal and professional defeat.

Now, as a veteran teacher, I am re-evaluating my relationship with a student's blank page. I am re-evaluating my emotional and professional response. I am advocating that there is value in reading a blank page—meaning, the literal definition of reading, "look at and understand the meaning of written or printed words or symbols" (Oxford Learners Dictionaries, 2024, n.p.)—rather than immediately responding with intervention. For the sake of my students, I am reconsidering the blank page as a symbol worth analyzing.

## THERE ARE INVISIBLE SPLATTERED GUTS OF MEANING ON THE BLANK PAGES IN OUR CLASSROOMS

Reflecting on her education as a student at Berkeley, Joan Didion (1976) made a comparative allusion between her process as a writer and Berkeley's particle accelerator. In a gross oversimplification, we could say that a particle accelerator uses centrifugal

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force to get a particle moving so quickly that when it splats against the wall, all of its guts come spilling out revealing what was previously invisible to detection (Smith, 1948). It's a fitting description for what a writer does, particularly Didion (1976), who was able to fixate on a single subject or image until—in her words—"it shimmered" (p. 270).

When I discovered the *currere* method (Pinar, 1994), I immediately thought of Didion and her particle accelerator revealing the invisible. Although unintentional, Didion's piece written in 1976 reflecting back on her lived educational experience at Berkeley in the 1950's in order to explore who she was in the present, reads like it has been run through the *currere* methodology, proving that this kind of thinking can happen—in part—organically. I have, for years, been organically processing a few classroom memories from my time as a homeless teenager, but it wasn't until after spinning these lived experiences inside the recursive-memory-particle-accelerator that is the *currere* method that I have arrived at some splatted guts that have revealed a synthesized reconceptualization of the blank pages I have produced as a student and processed as a teacher and that have me reconsidering how I will react and respond to my own blank pages and those of my students.

#### ELEMENTARY SCHOOL: A FIRST GRADE BLANK PAGE

I was born in Guadalajara, México, to a Mexican mother and a father with German roots. We were poor. My mom was terminally ill. We bounced from house to house throughout Central California for the majority of my early education. Because of our limited resources, we often didn't have as much control as my mother would have liked over where we lived, and by extension, where we would go to school. To get around this, my mother would find a family whose home was situated within the boundary line of her chosen school district and convince them to let us use their address for our admission forms. I was given a flashcard with the new address to memorize in case anyone interrogated me. All of this to say, that before the first day of first grade, I was already petrified of saying the wrong thing to an adult who would then have the power to evict my mother from her dream for us. I was afraid of standing out.

And boy, did I stand out to Mrs. Grenager, my first-grade teacher. I can still see her pacing slowly up and down the aisles like a sentinel on patrol, her eyes always, seemingly, locked on me. Within the first week of class, she made sure I learned some important lessons: I was the slowest reader; I did not pronounce my words correctly and would need speech therapy; I could not write (probably, she said, because I wasted all my creativity on daydreaming); and I literally could not write (poor penmanship).

I was paralyzed. Every day I would come home crying to tell my mother that I couldn't read, and I couldn't write, which confused her. Because of my mother's disease, most of our time was spent reading and writing together. Her books and my books became our books, *The Little Prince*, *The Princess Bride*. She would read aloud; then, I would read aloud. Sometimes we read silently next to each other, but we always read.

And we wrote. She was worried she would die before she could tell me all that she had to tell me, so she wrote to me in a journal. She would give it to me when she needed to sleep, and I would read it, and I would respond with questions and feelings. What do you want your last words to be? Will you be sad if Dad remarries? What's the most important thing to know? I hope you can still feel my love when you are in heaven. Her writing mixed with my writing into journals of our writing. I didn't think of these as academic skills. Reading and writing were just a part of our lives. It was closer to

what sociocultural learning scholars would call “a bidirectional process” (Martinez et al., 2017, p. 495) that fosters a healthy and empowered identity (Williamson, 2019).

But Mrs. Grenager never saw this part of my life. She saw that, when I wrote my name, the letter J was too slanty-flat and the letter e was too squashy-flat. She made me copy my name over and over on those gray-brown, train-track construction papers that seemed designed to rip if you tried to use your eraser. I became so paralyzed that, any time I received a piece of paper to write on, I would stare at it. If pushed to write, I would respond, “I’m thinking,” and put my pencil at the ready until Mrs. Grenager moved on. The blank page was the only safe way to write, especially when there was no safe shelter for my reader identity, and I viewed the two identities not separately, but as a singular reflection of my ability to succeed in school.

As I re-inhabit this dusty space of an educational system, it almost feels unrecognizable. Cursive is gone, and when I tell my current students about my “slow bird” reading group in Mrs. Grenager’s class, they can’t believe it. The fastest readers, the “bluebird” group, had a sign at their table with a picture of a bluebird, its mouth overflowing with worms. The sign on the “slow birds” table was a bird shrugging its wings as it looked at an empty hole with a question mark over it. Maybe this was meant to motivate us, but maybe it was closer to what one of my current students called it: “Straight up child abuse.” Some of these early images of my education seem to have been eradicated, but I’d submit that even though those external practices might not exist in the classroom, perhaps the underlying principles and biases that drove those practices are still holding on. While research touts the positive effect size of ability grouping (Steenbergen-Hu, 2016), my own experience aligns with research on the lasting harm of being told at an early age I existed in a deficit (Belfi et al., 2012).

Educators—myself included—think in terms of school years, but for students, experience is not fractured. They are a homogenous collection of all their experiences and—at least from personal experience—a few months of immediate acceleration within a grade level perhaps isn’t worth the collective effect of a language portfolio that will impact formative self-conceptualization in a negative way.

I was switched out of Mrs. Grenager’s class for the last two months of school.

On my first day in Mrs. Teagarden’s room, I received an empty booklet of paper in the shape of a pumpkin. The eyes were cut out, revealing the lined writing paper beneath, brown and blank. I wanted to do right by that pumpkin—it looked so cool—but my sullen expression made my self-doubt evident. Mrs. Teagarden said, “I hear you have a wonderful imagination. I can’t wait to read whatever you write.” She had me at “whatever.” I didn’t feel pressure to create perfection; I felt a freedom that whatever I wrote would be honored and not criticized. Mrs. Teagarden did for me what I want to forever do for all my students: encourage, cultivate, and safeguard their right to fill the blank pages of their writing life.

### HIGH SCHOOL: A HOMELESS BLANK PAGE

My mother died. My father stopped coming home, so I bought a one-way Greyhound bus ticket to Provo, Utah. I had just turned 16. I walked to the courthouse and told a clerk I wanted to make sure I didn’t miss any important steps in the paperwork process of transferring power of attorney away from my father. She was kind and explained that my lawyer should know how to do all that. I smiled and asked if there was a way I could do it without a lawyer. She smiled back, more concerned, explaining that I would still need legal paperwork and that I really did need to find a lawyer. With otherworldly

confidence, I told her that if she could show me an example of what it needed to look like, I could write it. And nothing in me doubted that I could.

After giving me a copy of an old filing she redacted with a black Sharpie, I methodically read and re-read every line, every word, adapting them to fit my circumstances. I used an electronic Brother word processor that showed three lines of text at a time. Because of the fastidious formatting requirements of the example filing, I had to start over several times. But it worked. At 16, I successfully drafted and filed my own legal documents transferring power of attorney away from my father.

I chose Utah because I thought I might find a stable home with a brother who was living there. Things didn't work out, and I spent a year living on the street without a home, without family, without support. Ever the good student, I had enrolled in AP Literature before knowing I would be without a place to sleep. It was my favorite class.

Mr. Baldwin walked in 2 minutes late every day. He always wore orthopedic shoes and corduroy pants with oversized Hawaiian shirts that framed his impressively hairy chest. I can only assume he had dentures because he was constantly sucking up excess saliva and speaking with a bit of a lisp around his unnaturally fitting teeth. He was an odd-looking man, and I loved him for it. Utah had been a hard-cultural adjustment for me, and Mr. Baldwin seemed more California eccentric, so he was my closest attachment to home.

"You guys, did you do the reading last night?" Heather's question isn't directed at me but to two young men who look like they could play quarterback.

"I did. I couldn't believe it."

"Like, oh my frick! Can you believe how many frickin swears there were?"

I only know Heather's name because everyone knows Heather's name, since she always has a problem with everything Baldwin stands for. At this point in the year, I have not said one word in class, but I love to watch all this drama. Since Baldwin is late every day, he misses these Heather-rants that allow me to watch all the dramatic irony play out when he shows up.

"I'm gonna say something today. We have to take a stand."

"If you say something, I'll support you."

"And why do I need to be reading about a woman's bra? I mean it's clearly all about sex!"

"I've thought about asking my parents to come talk to him."

"Guys, if he makes us read anything with swears or sex today, I am going to walk out!"

"Good morning class. I had to wait in line to make the copies for today. Hopefully you had a chance to talk about the reading a bit."

Heather's hand shot straight up. "Why did you assign us this book to read?"

Mr. Baldwin looked confused, his tongue sliding across his teeth. "This novel is part of the course reading list."

"But why can't we read a different book?"

"You can read any book you'd like. This is just the book we are reading for discussion in this class. I assume you all did the reading?" Mr. Baldwin flipped to the page he wanted to discuss.

"I just want to know why you chose a book that is inappropriate when there are so many other books to choose from."

"This book isn't inappropriate. It's literature."

“It’s sex and swearing! Do you really think it’s appropriate to be talking to kids about sex?”

“You are all going to fail the AP test if you can’t handle reading about life.”

The room was silent.

“Do you know we can see your chest hair?”

“Okay, clear your desks!” His face was lobster red, the veins pulsing in his neck. I could hear his blood pressure rising by how frequently he was sucking his excess saliva. “How about love? Can we talk about love?!”

Mr. Baldwin slapped a stack of handouts against the front desk of each row. “You’ll have to write an essay today because I’m not going to talk about literature with people who can’t handle life! This is a poem about Love by perhaps the greatest poet of all time. You have 40 minutes!” The handouts included the poem, “The Broken Heart,” by John Donne and a prompt to, “Read the following poem carefully. Then, in a well-organized essay, analyze how the speaker uses the varied imagery of the poem to reveal his attitude toward the nature of love.”

Heather was either a fast reader, or I was slow in processing what had happened because I was still reading the first two lines—“He is stark mad, whoever says, That he hath been in love an hour ...”—when she stood up.

“And there it is! Sex and swearing!” She circled the words “swear” and “breast” holding them up for the class and walked out.

It was a lot to process. I had spent the last night sleeping in five-minute chunks. Every time I got warm enough to fall asleep, it only lasted a few minutes before my body would shake so hard it woke me up. I was thinking about that and Heather’s clear misreading of Donne’s usage of “swear” and how poorly Mr. Baldwin was treated when I hear, “Five-minute warning.”

I’m not sure what happened, but the page in front of me is blank, and the pressure in my head feels a little better. I must have fallen asleep.

I decided trying to write the essay was a mistake. Instead, I underlined some random words, drew some arrows, circled a few words that looked meaningful, then wrote a little note:

I got so wrapped up in Donne’s beautiful imagery, I lost track of time. Sorry about that. And sorry about the way the students treated you. I think you are a great teacher. I know this poem isn’t about sex. It’s about love!

I underlined the word love and ran over it a few times with my pencil to really emphasize the point. I left class that day feeling really good about life, like Mr. Baldwin and I had fought the class and I had his back the whole time. It didn’t feel like family but something close to it: an alignment of values.

The next class period, Mr. Baldwin was waiting for me at the door with my annotated poem.

“You were the only one who didn’t write the essay,” he said as he walked me to the book room across the hall. “You can use this class period to get caught up.”

After another night of endless shivering, I didn’t stand a chance in the quiet cocoon of that closet. I woke up in a panic to the sound of his orthopedics squeaking in the hallway. I didn’t want to disappoint my favorite teacher. When I saw he was talking to another teacher with his back to me, I slipped around the corner and left campus.

I skipped his class the next week. A mix of shame, worry, and wishful thinking that maybe, after a week, I could just sit down in class again like nothing had happened. It didn’t work.



“You left! And then you skip my class for a week?”

“Sorry.” The word caught in my throat. He showed me to the closet again. “You have two prompts now. I don’t know how you are going to finish them, but you better get started!”

I couldn’t see straight. His words, the tone. It felt like a betrayal of my last safe space. I spent five minutes deciding if I should write the essay or leave again. I knew if I sat down, I’d fall asleep, so I stood with a book behind the paper and tried to write. It didn’t work. I thought I had been smart enough to take this class but must not have been because I couldn’t seem to get my brain to work right. I crumpled up the paper and shoved it into my pocket along with my hope for passing Mr. Baldwin’s class.

How was it possible that I was spending my free time drafting legal documents while simultaneously failing high school English? Furthermore, how had I independently acquired samples of legal paperwork, studied how they worked, identified what each filing required, adapted my language to fit the legal jargon in this new genre, all while believing myself to be an incapable writer?

Mr. Baldwin knew nothing of my extracurricular courtroom writing activities, and things with him only got worse. When I did turn something in, he could never seem to look past my spelling mistakes, poor handwriting, and my persistent misuse of punctuation. Everything had been reframed for him by my avoidance behavior of skipping his class.

What can we do—practically—as overburdened teachers to get to know our students’ writing lives? To validate their experience?

For schools to be successful, they do not necessarily need new curriculum or radical restructuring, but a change in culture and attitude—a change that recognizes that with teaching comes a commitment to build knowledge of our students as much as to build knowledge in our students. (Martinez et al., 2017, p. 490)

Mr. Baldwin is a big part of the reason I became a teacher: to make sure no kid would ever have to feel the way he made me feel. I wanted to not be the kind of teacher who would punish kids with writing an essay because they chose to stand up to his choice of books. I wanted to get to know kids before making any assumptions about them. I wanted to teach students rather than curriculum. I have tried my best.

### **TEACHING: WIEDERHOLD REVERTS TO BLANK PAGE BALDWIN RAGE**

But I have failed many times. Despite my best attempts to not revert to Mr. Baldwin, to not tap my inner Mrs. Grenager, my years as a teacher have revealed that nothing frustrates me more than a blank page sitting in front of a seemingly apathetic student.

I taught Dieme as a ninth-grader. We bonded over Caribbean food: he was from the Dominican Republic, and I lived in Puerto Rico for a few years. I knew he spent his weekends taking the train into the city to meet up with his cousins. I even watched the home-made music videos they would create together. I was succeeding in connecting with Dieme, the person. Because I cared about him, I wanted desperately to empower him with writing strategies I knew would help him address any writing situation he’d face in life (Dean, 2005).

“Dieme, why aren’t you writing?”

“I’m thinking,” he said, tapping his temple thoughtfully.

Thinking is part of writing. I know that. If he needed time to think, that was valuable writing energy that maybe a less experienced teacher wouldn't recognize I thought.

Dieme was often the first to class every day, so I made sure to check in with him the next class period, "So last time, you spent a lot of time thinking. What is your strategy for starting the drafting process?"

"I dunno."

"Dieme, the strategies. What about making a list? What about an informal scribble first to get the juices flowing? Or doing some fat drafting to build from some raw material you have already created?"

"Oh, yea. One of those would probably work. Thanks."

After 10 minutes of waiting patiently for him to start, "Dieme, what strategy do you want to try first?"

"I'm just thinking, making a plan."

"That's great. That's valid. I'm worried that you only have two days left to finish this. I want you to be able to enjoy the weekend with your cousins. How about starting with a scribble? Just informally spill your thoughts on the paper without worrying about spelling, grammar, any of that stuff. Just ideas. Sound good?"

"Yeah, sounds good."

I walked away from Dieme and watched him lean back for the majority of the period, periodically tapping his pencil on his paper if he saw me look his way. How stupid can I be, I thought. He probably has something going on in his life. I was homeless. What is going on with Dieme that would keep him from engaging? I will take a deep breath and check in with him next time.

"Dieme, hold up." I pulled him into the hall to talk before class started. "I've been worried about you lately. I see you aren't engaging in class. Anything you want to talk about, or I can help you with?"

"Nah, I'm good. Just been thinking."

"Okay. I want to give you your space. I also want you to pass English. If you don't turn this in, I can't give you a grade. You gotta give me something. Can you write something today? It's the last day we have to work in class."

"I got you. I will."

Dieme never got past the thinking stage of the writing process. He failed my class, and I feel like I failed him. Our daily talks turned away from Caribbean food to my worries for his future. I spent the rest of the year showing him graduation progress charts, trying to warn him that he wasn't on track to graduate. Reminding him that I can give him credit for anything he is willing to turn in. I felt so much frustration at my inability to break through whatever was distracting Dieme from what I was sure was the most important thing he could be doing.

His sophomore year, he came and said hi to me every now and then. I asked him how he was, and we shared some personal pleasantries, but my talk always veered back to encouraging him that he could still work with me to earn credit for his freshman year.

At the beginning of his junior year, another teacher asked me if I had met Dieme's son yet. Son?! I was shocked. Dieme being a father was so far outside the possibility of what I had imagined he might be facing.

"I didn't know Dieme had a son. Was that like over the summer?"

"No, his kid is like a year and a half."

"Yeah, he has full custody too. The mom didn't want to be a mom, so he's working a ton to try to support his kid. I'm so proud of him for still trying to finish high school."

Dieme had learned he was going to be a father while he was a ninth grader in my class. He had promised to care for his son, enlisting help from his family, looking for a job, shopping for cribs and bottles and formula. He was even reading parenting books—all while he was in my class. I had no idea. And I don't know that I needed to know. Sometimes I forget that even if Mr. Baldwin had tried finding out more about what was going on with my home life, I wouldn't have told him.

### HOW I NOW READ AND REACT TO BLANK PAGES OF WRITING

I am learning that there is a line between a student's effort and my own and that too often I have been guilty of overpowering—with the very best intentions—a student's right to not write. In psychology, narcissistic parents see their children as an extension of themselves and, therefore, try to control and take ownership of their behavior (Lo, 2022). I don't think a direct comparison between my efforts as a teacher and a narcissistic parent is fair; however, making the comparison is a helpful reminder that students exist outside of myself, and it is healthy to maintain that boundary.

I know how hard it is to maintain those boundaries when I also feel a professional responsibility to prepare students for end of year testing, for passing my class, for graduation. I worry that, in wanting to help students prepare for traditional academic success, I have created two distinct discourses in my classroom (Gee, 1989): one that tries to place students at the center, jointly constructing meaning through genuine dialogue and inquiry, and the discourse of test-prep that reverts to the “banking” model (Freire, 1968/2018, p. 72) with the justification that all students need to know certain things to be successful on the test. What I never considered before was that I might run the risk of invalidating or at least undermining one while choosing the other, that while I—as teacher—might be able to compartmentalize those two discourses with my own internal dialogue, my students will experience it differently. Dieme was caught between those conflicting priorities I gave to my classroom. He handed in so many blank pages, and I didn't read a single one.

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# TENSION AND COUNTER-TENSION: GROWING PAINS IN SURGICAL TRAINING CULTURE

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Stay strong; show no weakness. Work hard; keep your head down; never complain. Respect hierarchy. This is a summary of the advice I received from general surgery attendings and residents as a bright-eyed bushy-tailed medical student aspiring to join their ranks. Surgeons were tough. They took pride in their ability to deprive themselves of basic human needs like food, water, bathroom breaks, and sleep, to do whatever was needed to take care of their patients and save lives. The advice was reflective of the traditional values of surgical training and a reason why many of my medical school classmates unfortunately shied away from the field despite their interest. The common explanations given for not pursuing surgery included doubting their ability to survive such a harsh environment and valuing their health and sanity too much to potentially sacrifice it all.

As a current surgical resident, I have become more closely acquainted with the reality that surgeons are often placed in situations where they are expected to stay calm and take the lead under immense pressure, to make medical decisions and perform technically complex operations with the understanding that any mistakes would directly affect the health of another human being. It is perhaps understandable that the “old school” surgical training mentality operated on the belief that weathering difficult training conditions would create stronger residents, as if they were carbon atoms requiring extreme pressures to be transformed into diamonds.

Unfortunately, another well-known outcome of constant, unrelenting pressure is burnout, which has been associated with poorer patient safety outcomes (Al-Ghunaim, 2022). The spotlight on mental health in recent years has revealed some disturbing statistics, including a multicenter study reporting that 75% of general surgery residents met criteria for burnout, 39% met criteria for depression, and 12% had contemplated suicide in the two weeks before the study data were collected (Williford, 2018). The staggering results have prompted leaders in surgical education to re-evaluate the culture of surgical training and attempt to promote a more supportive learning environment. It is unsurprising, however, that progress has been challenging, given that most of the faculty were trained in the “traditional” era, and many of the trainees have already internalized a reluctance to show weakness by asking for help.

## THE REGRESSIVE

Since starting residency, I have had the opportunity to do some soul-searching on why I so eagerly sprinted toward a career path that was clearly labeled with a “DANGER” sign. Aside from an obvious interest in the field of surgery and a strong desire to help people and fix problems, I realized that some of my personal values, molded by my upbringing as a second-generation Korean American and by my childhood extracurricular activities, may have made it easier for me to embrace the parts of surgical training culture that had scared away so many.

After all, “No pain, no gain!” was one of the phrases I had heard ad nauseum from my dad throughout my childhood, and my parents always led by example—always giving 110% effort, never complaining, and focusing on discipline and productivity. Furthermore, as someone who participated in numerous classical piano competitions from ages 8 to 18, I was no stranger to high pressure situations, the concept of time as a limited commodity, or the idea of necessary sacrifice to accomplish a goal, which started with giving up some daily playtime in elementary school to practice piano and eventually progressed to sacrificing sleep in my busier high school years to maintain advanced piano technique while staying on top of academics and varsity sports practice. Finally, the emphasis on respect for elders and filial piety in Korean culture and my experiences on sports teams meant that I was already quite comfortable with navigating hierarchical systems.

In many ways, I had a combination of past experiences that set me up to be relatively more accepting of a hierarchical system that demanded that residents become workhorses who never complained or admitted any vulnerabilities. That said, I am grateful and relieved that that has not been my experience so far in residency. In fact, many of the more senior attending surgeons currently in practice are often quick to describe how much easier we have it now than in the past.

Objectively speaking, a drastic change occurred in 2003 with the implementation of an 80-hour work week limit for residents in all specialties by the Accreditation Council for Graduate Medical Education (ACGME). Interestingly, the impact of this change has been unclear at best, with many studies concluding that it has had no significant impact on patient care or resident wellness, but it may have negatively affected resident education (Bolster, 2015). There is a significant amount of ongoing surgical education research attempting to gather more information to optimize the resident training environment.

The shift in training culture has been subtle and gradual compared to the more abrupt change in duty hour restrictions. While it is no longer considered acceptable to publicly humiliate or berate residents for mistakes or shortcomings, there are still more subtly malignant mentalities that are difficult to eradicate, such as residents feeling pressured to never show weakness (perhaps even more so with the existing opinions that we are “softer” than previous generations of trainees due to the existence of duty hour limitations).

During the residency application process, I, therefore, did my best to identify programs that were recognized for being leaders in surgical education and improving the culture in surgical training. I knew that there were surgical experts all around the country who could train me to be a strong technical surgeon, but it was important to me to surround myself with role models who shared my passion for education and belief that the field of surgery needed to work toward creating a safer and more supportive learning environment.

### **THE PROGRESSIVE**

In the personal statement that I submitted when applying to residency programs, I stated that one of my long-term goals was to become a residency program director because I wanted to improve the culture of surgical training. While in residency, I have been serving as a member of our program evaluation committee for the past few years to advocate for my colleagues and help our program identify and address issues that negatively affect the local resident training environment. While it has been a meaningful experience, I do recognize that this does not necessarily translate to improving surgical

training culture outside of our institution. My hope is that once I complete training and become a surgical attending, I would have the opportunity to participate in program leadership positions, which would subsequently open avenues to collaborate with other surgical education leaders across the nation. My specific goals are to help change the stereotype of the harsh and unforgiving training environment that scares interested and talented medical students away from the field, as well as the overemphasis on “grit” that may ultimately contribute to mental health issues by pressuring residents to hide their problems.

I do want to take a moment to recognize that there are many positives in the “traditional” surgery values of resilience, strength, sacrifice, and dedication. As described earlier, surgeons must be able to perform even in highly stressful situations and demonstrate confidence from a professional standpoint to appropriately reassure patients and earn their trust. At the end of the day, it is always an honor and privilege to care for patients at their most vulnerable. Rather than suggest that these traditional values be completely abandoned, I would hope that they can instead be maintained but tempered so that residents feel more supported and empowered to advocate for themselves. Similarly, the existence of hierarchy in itself is not problematic, as those with greater expertise should take the lead and responsibility for high stakes decisions that are made, but it is never appropriate for hierarchy to be used as a justification for disrespecting and demeaning trainees.

One of my goals as a future attending surgeon is to always have my operating room be a safe space for trainees. I would want them to be able to focus on their education, ask questions without fear of being judged, and feel like they are respected members of the team. Accomplishing this will require that I work to continually improve my teaching and communication skills both in and out of the operating room and to learn to differentiate when to give my trainees space to figure things out on their own and when to step in to protect the patient.

### THE ANALYTIC

At this point in my surgical training, I still have much to learn, but I have had the opportunity to teach junior residents and medical students both while “on the job” and in more formal classroom settings as an instructor for the surgical skills curriculum. My ability as a resident to affect surgical training culture on a large scale is obviously very limited, but my clinical experiences have taught me that the chief resident of a team does have a significant impact on the team dynamic. In my remaining years of residency, I plan to be intentional about developing a leadership style that works best for me and to pay attention to improving team morale.

One of the recurrent themes I have noticed as a resident is the tendency for people to complain about subsequent generations of trainees “having it easier” than them and not having to work as hard. Attending surgeons who trained prior to the duty-hour restriction implementation sometimes express their belief that current residents are “weaker” both in terms of grit and technical skill, due to less time spent in the hospital and in the OR. This perception may affect their ability to empathize with current trainees and might make residents feel like they have to work even harder to demonstrate that the perception is wrong.

It is a fact that current residents are protected from working as many hours as residents did in the past, but attendings may not take into account that the current practice environment is also very different from when they trained and subject to

unique challenges of the digital era—more stringent requirements for documentation in patient charts, electronic texting-based paging systems, which have made residents much more accessible for trivial pages, attendings being required to be present in the OR for all critical parts of the case, etc. Regardless of whether the generational differences are factual or simply perceived, I believe that broad negative generalizations are unproductive and will do my best to avoid using them when I am tempted to do so in the future and encourage others to do the same.

### THE SYNTHETICAL

I believe there is something to take away from most interactions I have with senior residents and attendings, whether I see them as positive role models whose practices and attitudes I wish to emulate or even as negative role models with less-than-ideal teaching styles ranging from benign but ineffective (due to nonspecific feedback or subpar teaching ability) to malignant and hurtful (due to lack of emotional intelligence or empathy). My hope is that I will be able to compile my observations and put them into practice to help spread a more supportive learning culture and avoid repeating unhelpful behaviors.

One thing that my role models all seem to have in common so far is that they practice empathy, choose to be respectful and kind, and communicate clear expectations. Speaking from personal experience, it is especially hurtful when attendings assume the worst of you—that a task was missed because you were careless or lazy, as opposed to an honest mistake from being busy or overwhelmed. I hope that, as an attending, I remember to give residents the benefit of doubt and, if they are falling short of expectations, approach them with a supportive, not punitive, mindset. I believe that giving honest and actionable feedback is part of being a good teacher and team leader and that it is possible to be direct without being unkind. Mistakes absolutely should be addressed because patients' lives are at stake, but without intentional shaming. Finally, some of the best chief residents and attendings I have worked with were often ones who communicated their expectations early, which allowed them to set the stage for providing feedback at a later point if the expectations were not being met and helped the team run more smoothly in general.

In conclusion, although it is understandable why resilience, strength, sacrifice, and dedication have been heavily emphasized in traditional surgical training, it is imperative that future surgical educators prioritize creating and maintaining a safe and supportive learning environment. At the end of the day, we are in a field where mistakes can directly affect patient health. Bluntness may be unavoidable in certain situations, but humiliation and shaming are no longer acceptable. Surgery will always be a challenging specialty, but my hope is that future medical students will no longer rule out surgery as a career because of negative descriptions of its training environment.

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# **CURRERE IN THE SPACE BETWEEN: ON A PATH TOWARD DIALOGIC LEARNING**

**By Maria Piantanida**

*Scholar-Practitioner Nexus*



*Photo Courtesy of my husband, Earl Novendstern*

While in Iceland, I slogged through the one place on earth where the mid-Atlantic rift rises above the ocean, and it is possible to walk in the space between the North American and Euro-Asian tectonic plates. Progress through the rift is slow as one's feet sink deeply into pulverized lava. But traversing the space between two foundational forces can be exhilarating.

As a child, I never dreamed of being a teacher. I envisioned a career in medical research seeking a cure for cancer. That vision evaporated in college when faced with incontrovertible evidence that I had absolutely no aptitude for science. Set adrift, I ended up majoring in English literature and after graduation pursued a master's degree in the subject. As a graduate assistant for an introductory course in English composition, I had my first teaching experience. Let's just say that did not ignite my passion for life in the classroom—or for the lifelong study of English literature. Adrift once again, I lucked into an administrative position where I worked with a physician who was spearheading efforts to improve the quality of pre-hospital emergency care in Southwestern Pennsylvania. Here, I could linger in a space between medicine and health care planning. Ironically, I was less interested in mastering life-saving skills than in the educational preparation of emergency medical technicians (EMTs).

This was in the early 1970s when the idea of training lay persons to deliver life-stabilizing, on-the-scene, emergency treatment was new and still controversial. In the absence of standardized licensure exams tied to a uniform curriculum, the training was

fraught with inconsistencies. Slightly more experienced and competent ambulance personnel were anointed as instructors, none of whom had any preparation for their new role. This, it seemed to me, was an undesirable state of affairs, so I began looking for an educational consultant who could help me bring some semblance of order to this educational free-for-all. I was told, “You ought to go see Dr. Noreen Garman in Pitt’s School of Education.” Although I didn’t know it at the time, following this suggestion set me on a life-long course of learning about curriculum.

In 1975, two years after Noreen helped me to develop an EMT instructor-training program, I entered doctoral study in the Curriculum and Supervision program at the University of Pittsburgh. As a neophyte in the world of education, I tended to put Noreen on a pedestal, along with the other curriculum theorists she referenced (e.g., William Pinar, William Schubert, Madeleine Grumet, Janet Miller, Michael Apple, Maxine Greene, Dwayne Huebner, Dennis Sumara, and James Macdonald). Often, I did not understand what she or they were talking about, and in my ignorance, assumed the heady discourses of curriculum theorizing weren’t relevant to me. Even more, I assumed that my thinking about curriculum development was inconsequential to them. I found myself in a space between my world of curriculum practice and the world of theory inhabited by those I admired.

I also inhabited a space between the world of Noreen’s courses, and the world of the University’s External Studies Program (UESP) where I had a graduate assistantship. In my naiveté and admiration, I assumed Noreen had figured out “all that curriculum stuff.” As she later recounted, in the mid-1970s, she was grappling to enact a different form of curriculum in her classes:

There were no stated learning objectives [in my courses]. I was not telling students ahead of time what they should be learning and why (a cardinal sin in the traditional curriculum thinking of the day) ... . In those early years, many students were frustrated at first, but by the time the semester ended they would often say, “This was the most exciting experience I’ve had in graduate school. I don’t exactly know why, but it is.” A few went away angry, because I never really told them directly what to learn, and they felt they hadn’t learned very much because their frustration level was so high. I hated that part. And I struggled, not only with enacting this form of curriculum, but also with the ethical questions it raised. (Garman, 1990, p. 176)

In my enthusiasm for her courses, I didn’t fully grasp that Noreen was struggling for a language to articulate her vision of curriculum, and never dreamed she might count me as a useful contributor to her deliberations. In the meantime, at UESP, no such struggle for language or curriculum design seemed to be occurring. There, Doris Gow’s (1973) highly structured, building-block model of curriculum design was being used to transform in-person, on-campus courses into an independent study format. For many professors, this was the first time they had been asked to provide a rationale for the content they were teaching and the learning outcomes they expected the students to achieve. In this space, I could see the value of designing courses in a way more closely aligned with the traditional, outcomes-based curriculum thinking that the theorists seemed to be criticizing. Thus, as I traversed the campus from the building where doctoral courses were held to the UESP office, I was moving between two theoretical spaces that I had no frame of reference to comprehend.

A breakthrough occurred for Noreen (and consequently me), when she came to a metaphor that she characterized as two fundamentally different curriculum “contracts.” With this metaphor, it seemed to me she found a language for helping students to understand the nature of the educational experience they were encountering without lapsing into reductionistic, prescriptive behavioral objectives. Figure 1 summarizes assumptions that underpin what I was doing in UESP (left column) and what I found so exciting, even transformative, about Noreen’s curriculum enactments (right column).

**Figure 1**  
*Contrasting Assumptions of Curriculum Structure (Garman, 1990, p. 179)*

Closed Contract assumes that	Open Contract assumes that
<ol style="list-style-type: none"> <li>1. ...teaching and learning can be systematically organized, based on predictable learning behaviors of students (implying that learning experiences can be organized in order to guarantee that a reasonable percentage of students can achieve the predetermined outcomes;</li> <li>2. ...the evaluation procedures can provide adequate evidence indicating to what extent the learner has achieved the given outcomes. Generally, this is done by measuring the predictable results through quantitative data;</li> <li>3. ... the management system (agreement) implicit in the contract is primarily for the control of behavior and accountability (for both teacher and learner) in order to achieve the intended outcomes.</li> </ol>	<ol style="list-style-type: none"> <li>1. ...learning events can be imagined in such a way that a reasonable number of participants, by involving themselves in the situation, can articulate the meaning they find as a result of their involvement and their reflective inquiry about the significance of the events;</li> <li>2. ...the discoveries of participants, which are not controllable and predictable, can be described, interpreted, and evaluated by the participants within the limits of the contract;</li> <li>3. ...a reasonable number of participants can become aware of their own consciousness as an important part of the open contract;</li> <li>4. ...knowledge is unfolding in time in a manner that leads to ever new and unpredictable states.</li> </ol>

The contract metaphor made sense to me because I had experienced both forms of curriculum and could see a value in both. I kept silent, however, in the presence of curriculum theorists for fear that my curriculum-making efforts would be dismissed as “mere design.” At the same time, I was met with blank stares when trying to describe the open curriculum structure to those deeply immersed in “closed-contract” education. I felt mired in a theoretical rift unable to talk confidently with those on either side of what I framed as a curriculum divide.

Somewhere in the material I was reading for my work at UESP, I ran across a distinction between the “logical organization” of knowledge and the “psychological organization.” In an “aha moment,” I recognized this as the most significant in-between space—the gap between what makes sense to an instructor and what makes sense to a learner. Of course, I wasn’t the first or only person to have that insight. Indeed, a robust literature exists on the importance of incorporating advanced organizers and scaffolding into instructional plans precisely to bridge that space. The ability to create such bridges

falls under the umbrella of what Sternberg and Horvath (1995) call “pedagogical-content knowledge” (p. 11). As important as it is to know how to convey content knowledge, it still seemed to me to miss a more fundamental point that the curriculum re-conceptualists and Noreen were trying to get at. Namely, what is the meaning of that knowledge to the learner? As David Cohen (2011) points out, teachers, like those in other helping professions, “can succeed only if their clients strive for and achieve success” (p. 10). As Noreen said, “I can invite students into an open space of learning, but only they can choose to participate; and in the end, only they can say what meaning they ascribed to the experience.”

The idea of “invitation” evokes another memory from this time in my journey; an annual gathering of curriculum theorists referred to as the Bergamo Conference. Noreen invited several of us to accompany her to the conference, where in a retreat-like setting, I met the luminaries of the curriculum world. I would have been at liberty to talk with them, but my fear of sounding stupid kept me silent. As Noreen later wrote, open learning spaces are dialogic and entail a willingness to be present (which I was) and also the willingness to

- ... *value multiple perspectives* (which I didn’t know how to do);
- ... *engage in the shared learning of others* (which I didn’t realize was the point of the conference);
- ... *risk engagement* (which I definitely lacked the courage to do), and
- ... *become an active member in a community* (which I assumed wouldn’t want me). (Garman, 1990)

At these gatherings, my stance as an intellectual wall-flower allowed me to observe, but not participate in, the richness of deliberations. In contrast, a psychologist with whom I was working invited me to participate in a group leadership training program offered through the Living-Learning Institute (Kuebel, 2002). The Institute had been founded by Ruth Cohn, a psychoanalyst; workshop leaders (and many participants) were also psychoanalysts or clinical psychologists. Logically, it would seem I should have been equally reticent to engage fully with this group of intellectuals. Yet, in those workshop spaces, I became a fully engaged participant and, consequently, experienced some of the most meaningful learning of my life.

I valued this form of learning so much, I wanted to help others experience something similar. Noreen cautioned me, however, about the risk of playing amateur therapist. Once again, I internalized this as a message that my educational interests were not appropriate within the deliberations of curriculum. This was perplexing, because William Pinar (1975) was drawing from psychoanalysis for his theory of *currere*. Why wouldn’t it be acceptable to create educational encounters meaningful enough to yield therapeutic side effects? Wasn’t the construction of personal meaning at the heart of the open contract and *currere*? Without adequately understanding *currere* as a method of inquiry, not an approach to curriculum design, I remained in a confused space where, for reasons I couldn’t comprehend, theory seemed to be separate from practice, knowing from meaning, and thinking from feeling. Working my way out of that confusion has been what I consider to be my *currere* project. It is akin to what William Schubert (2021) describes as “shaping the theory within me” (n.p.).

I have carried this project with me as I’ve sojourned through the world of hospital-based education and then through a series of curriculum development projects including

a special summer program for gifted students interested in health care careers, a geriatric education project, an elder abuse training program for social workers, a curriculum reconstruction project in a school of pharmacy, preliminary conceptualization of an interdisciplinary doctoral program brought to an abrupt end by a Provost's failure of imagination, and co-development of a Master of Arts in Teaching program. In so many of these endeavors, the press was to articulate clear programmatic goals and specific learning outcomes. I couldn't fully ignore this pressure, because in truth, I could see a value in making instructional purposes transparent to students. At the same time, I wanted to help both teachers and students to understand that learning entails more than the transmission of knowledge or the acquisition of skill sets. I worked to show how an open curriculum structure could provide an overarching framework that could encompass "closed contract" elements. As a "glass is half empty" sort of person, I'm inclined to cast these endeavors as failures. To do so, however, would disrespect those who did create spaces where I could try out my ideas. Yet, more often than not, when I talked with Noreen, I focused on my frustrations. I was so self-absorbed; I missed the irony of not hearing what Noreen was trying to tell me as I was complaining that others were not hearing me. Here's a seemingly innocuous example.

When I heard about the instructional technique of concept mapping, I was excited. This was a way to make students' thinking visible and to see how they were incorporating new ideas into their conceptual frameworks. Eagerly I shared this insight with Noreen, whose response I so little comprehended, I cannot call her words to mind. Just as subterranean forces tug the North American tectonic plate westward, my attention is always drawn to my own interior spaces. Like the forces tugging the Eurasian plate eastward, Noreen is always nudging my attention toward something else—something I can't really see from my place deep within the rift. Given my insecurities and longing for approval, I tended to experience her nudging as a judgment that my ideas are wrong or inadequate. From her perspective, Noreen was simply sharing ideas that had been sparked by my comments. So, when I said, "concept map," her mind immediately went to mapping discourses. And that's why I characterized this as a seemingly innocuous example. Looking back, I now understand that Noreen's intent has always been to engage in generative dialogue, a form of thinking that would help me see some broader landscape of education where various ideological forces are constantly tugging in different directions.

Recently, Noreen and I have been talking about the problem of those who react to educational issues with little or no sense of history. Lacking an historical perspective, current concerns can be too easily misunderstood or dismissed. This was exactly my shortcoming when I entered the world of curriculum. With no previous exposure to the field of education, I didn't appreciate the discursive landscape into which I had stumbled. More fundamentally, I didn't grasp the point that, as a student of curriculum, I had some obligation to develop an understanding of the landscape, not just focus narrowly on my own work. In the picture of the Mid-Atlantic rift at the beginning of this essay, is a bridge that spans the two tectonic plates. In a sense, Noreen has always been trying to get me onto a bridge where I can look more neutrally in both directions, instead of reacting dismissively when something doesn't relate to my immediate concerns.

What I didn't understand back in the mid-1970s were the ways in which William Pinar and the other curriculum reconceptualists were resisting the powerful forces of behaviorism, industrial standardization, and scientism that had dominated public schools since the early 20th century. When Dwayne Huebner (1999) wrote about curriculum as

the journey of the soul or Dennis Sumara (1996) wrote about laying down the path while walking, they were calling attention to the importance of consciousness, agency, and meaning-making through educational experience. This, it seemed to me, was what Noreen was striving to enact within an “open contract” curriculum. This was a terrain I wanted to explore through curriculum-making, so I just couldn’t make sense of what I heard as disparagement of curriculum design. Because I was working in the space of professional education, I had no intellectual, let alone visceral, objection to designing curricula with clearly stated learning outcomes. This missed the point, however. The disparagement, I now understand, was for the totalizing and over-reaching imposition of behavioral designs to the exclusion of all else—and often to the oppression of the most socially vulnerable students. I’m more than a little embarrassed to admit that my own narcissism would lead me to think anyone was denigrating my efforts as a curriculum worker. The discourses weren’t about ME, but about important matters of inclusion, respect, equity, and justice.

In the same vein, Pinar was making an argument against a privileged mode of educational research. Back then, teachers, students, and educational institutions were often treated as objects of study by researchers in disciplines like psychology, sociology, and anthropology. The knowledge generated through such studies contributed to those disciplinary discourses but spoke little about the nature of education as it is experienced. In proposing *currere* as a mode of inquiry, it seems to me that Pinar was making a threefold point: (1) that curriculum lies at the heart of education as a field of study, (2) the field could have its own body of theoretical knowledge, and (3) education could have its own distinctive form of inquiry, not simply a derivative of methods in the disciplines.

I can well imagine those who have remained in the conversations about *currere* saying, “Well, of course, dummy. We all know that.” But I didn’t. And because I didn’t see myself as a curriculum scholar or theorist, I didn’t understand that reflection on educational experience as part of an open curriculum structure was related to, but different from, *currere* as a method of inquiry into the nature of education experience *writ large*.

Recently, I had a conversation with my colleague Patricia L. McMahon about the work of students in her master’s level creative inquiry class. When asked to recall a troubling moment of practice, several students recounted moments so painful that they were moved to tears. One student, writing in her final scholarly personal narrative said, “I was so caught in reflection as recollection and introspection, I couldn’t move forward toward conceptual reflection.” What a powerful insight. It is in that final metacognitive turn that theorizing occurs. Without that turn, the narrative may be poignant, even compelling, but still lacks a “so what” in terms of broader educational discourses. As Patricia and I talked, I was brought back to the layered difference between reflection as an engaged mode of learning and *currere* as a mode of metacognitive conceptual reflection inherent in inquiry. All of this, however, comes years after I was caught in a rift of my own ignorance where I struggled to find a stance from which to think and write.

This began to change when Noreen invited me and several of her other advisees to form a group to study alternatives to the science-like dissertations privileged at that time by the University’s School of Education. Although I still found it hard to believe, Noreen insisted that she had no ready answers for crafting such dissertations and was learning along with us. However, when our group began attending the annual conference of the American Education Research Association (AERA), I could see that many

scholars (including those in curriculum) were also struggling to define distinctive forms of educational inquiry. By attending the conference in consecutive years, I could see how knowledge was being developed discursively. Each successive year brought clearer language and the coalescence of new special interest groups that tackled the problem from different perspectives. I witnessed debates between Elliot Eisner and Maxine Greene, between Eisner and Howard Gardner, between Norman Denzin and a panel of experts who insisted they had developed all-inclusive criteria for “qualitative research.” This was the push and pull of ideological tectonic plates I had missed when I entered the field of curriculum studies. I began to see how I could be a participant in the midst of such deliberations and what it meant to enter dialogic learning spaces.

I would like to say I had an epiphany that permanently freed me from a simplistic way of thinking about knowledge. But, in truth, I still struggle. The difference is having a safe community in which to voice my naïve questions and, just as often, my obnoxiously judgmental opinions. Noreen has told me more than once that she is amazed by my capacity to make vehemently negative pronouncements about an issue and then come back in a day or two with a more thoughtful, reasoned perspective. To the extent this might be true, it is the steadfast pressure of Noreen’s intellect that brings me back to a dialogically deliberative space.

In the winter of 2023, Noreen and I embarked on a collaborative writing project about the dialogic nature of our work together. In reflecting on her early teaching career Noreen wrote, “I became a novice instructor in Pitt’s English Department, struggling to teach a methods course to education majors.” Reading this, I couldn’t help but think we had been fated to meet. Although we had missed each other in the English Department, we were brought together serendipitously a few years later. Because of that fated meeting, my *currere* project has evolved through the most important space between—that between two colleagues and friends as we engage in the dialogic push and pull of ideas that enrich the pathways on which our minds run.

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# THE UNIVERSE DOES NOT COUNT: PROMOTING A HUMANISTIC ONTOLOGY FOR MATH

By Kenneth Butler

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This is an autobiographical narrative discussing mathematical ontology. I focus on how myths about the nature of math are related to oppressive pedagogy. Many in education see mathematics as a necessary progression of rules and procedures with these rules and procedures being universally true. This makes strict adherence to K-12 curricula mandatory, and it can be seen in the rigorous, very specific standards that are pervasive in education. These standards contain fixed formulas and concepts that must be covered, and this type of curriculum often leads educators to teach math as if it is also rigid and predetermined. This myth advances a narrow definition of math in support of a tiered social structure with people who know mathematics having more social capital than people who do not. In this paper, I discuss how the myth that mathematics exists beyond human knowledge and is discovered by gifted geniuses is related to fixed ontological mindsets about the nature of mathematics.

This misconception about the nature of mathematics can be summed up with a question I am often asked by students, “Is math invented or discovered?” I have been on both sides of this fence, but critical analysis has allowed me to reconcile my own contradictions.

## REVIEW

According to Voskoglou (2018), the idea that mathematics exists independently from human knowledge appears at least as early as the writings of Plato and the Pythagorean concept of universal mathematical forms. For Plato, geometric forms are perfections of reality and exist on a higher plane than ordinary perception. This type of mathematical realism is still common in many philosophical circles. Wigner’s (1960) observation that math is unreasonably effective in the physical sciences is an appeal to mathematical realism. Taking this a step farther, Tegmark (2014) states that the universe is not just describable by mathematics, but it is mathematics. In opposition Livio (2009) notes that this argument is circular, as it begins with an assumption that mathematics is not a human invention.

The one concept that has the most legs when discussing the existence of mathematics is the natural numbers (Atiyah, 1995; Shapiro, 2000). Leopold Kronecker is known to have said, “God made the natural numbers, man made everything else.” Voskoglou (2018) takes exception to this, as do I. Voskoglou discusses highly intelligent jellyfish in a pure continuum. As they don’t experience themselves distinct from their surroundings, they may never experience the discreteness necessary to invent natural numbers. I too have thought that our reliance on counting at the early stages of mathematics may be a result of our subjective cultural experience as being distinct from others. Self-awareness may lead to isolation and, therefore, discreteness.

Kasner and Newman (1989) provide an argument against mathematical realism with an appeal to non-Euclidean geometries. Here, Riemann’s invention and success with elliptic geometry reveals that the universe does not follow the geometric perfections within Euclidean geometry. This demotion of Euclidean geometry may provide evidence against mathematical realism.

Voskoglou (2018) concludes that, although the discovered or invented argument is not settled, Livio's (2009) statement that mathematics is a part of human culture is certain. Voskoglou also conjectures that the way we conceptualize mathematics may have important implications for math education. This is my concern here.

Does the way we conceptualize mathematics affect how we teach and learn mathematics?

### CONCEPTUAL FRAMEWORKS

This work is rooted in the extreme subjectivism of Freirean (1968/1996) critical theory. I begin with his concept that all knowledge is human knowledge and use this simple truth to speak to the positivist contradiction. I understand that we can make discoveries about our universe, and we can base these discoveries in data. We can also assign truth value within a given framework. However, we choose the questions to ask, and we interpret data based on previous knowledge. We invent the frameworks we use to define truth, and in agreement with Freire, we learn by reconciling the contradictions between new experiences and previous knowledge. Within a Freirean framework, all knowledge is human knowledge, and thus, a humanistic approach to epistemology is vital.

My discussion of a humanistic ontology for math begins with Skovsmose (1994). The mathematics that we observe from others is a particular type of formalization of language and behavior. However, I expand on this to explore math as a formalization of cognition and rely on Popper's (1972) three worlds framework for discussing a humanistic ontology for math. Popper's first world consists of all things in the universe. His second world is unique to each individual and consists of individual cognition. His third world consists of the products of human cognition. The principal outcome of this paper is that math cannot exist in Popper's first world.

Gutierrez et al. (2023) discuss harmful narratives that reinforce inequity in mathematics education and how to turn these harmful narratives in a more positive direction. In their analysis, they use the term mathematics in the plural because there are many types of mathematics. I acknowledge this and use the term similarly. They also use the term mathematics *conocimiento* as the informal thought processes associated with pattern, relation, and structure that all beings use to make sense of experience. Although in the current political climate of education we may need to label this type of cognition as something different than the mathematics that is taught in school, I prefer a more revolutionary approach. Here, when I refer to math in the singular informal sense, I am referring to this type of cognitive abstraction that is common to all humans. By labeling this type of cognition as math, I am suggesting this is where math education should focus. I also suggest that, when referring to different types of mathematics, people are generally referring to the different types of mathematical artifacts that humans produce and not the math they used to produce these artifacts.

### METHODOLOGY

This is a qualitative autobiographic study aligning with the *currere* methodology developed by Pinar (1994). I use a temporal approach to an autobiographic narrative. I begin with a regressive exploration of past experiences. This is meant to be a freeform reflection. This is not a step-by-step historically accurate rendition. I begin this regressive exploration with the experiences that are, as the saying goes, at the top of my mind. I then proceed to other relevant experiences. Like all memory, these experiences do not

have a linear progression. After exploring relevant memories, I discuss present—on topic—understandings. Next, I move to a progressive exploration of my vision for the future. Finally, I analyze how the past and the future influence my present and then synthesize a framework to support a humanistic ontology for mathematics.

### REGRESSIVE

I remember working on my master's in mathematics and being asked to prove some new property in my first analysis course. I spent much of my time thinking about this proof. Looking at other similar proofs from class. I walked and thought. Then, something happened. I had an epiphany, I wrote it down, and I took it to my professor. He looked at it, turned to a bookcase, found a book, spent some time, and finally found the relevant page. The proof in this dusty tomb was almost identical to the one I had just discovered.

As an undergraduate in Philosophy, thinking about the nature of math was not new to me. I liked the idea that there is more to existence than physical experience. I saw math as getting us closer to Kant's *noumena*. If math existed and we discover it, then math was like reading tea leaves. Math was giving us a portal to something otherwise unknown.

In my undergraduate math courses, I began to realize that math was at its heart deductive. Mathematical statements were true because they had to be. We begin with undefined terms, define axioms, and then we see how a structure built from these elements behaves. I began to think of math as a science that does not depend on the world. Instead, I began to see it as a creative human endeavor.

This contradicted many of my mentors. Several were devout with a combination of Christian, Islamic, and Hindu beliefs. These professors saw math as a way to better understand God. They were never explicit in this, but I could see the desire to portray math as supernatural. For one professor, who we affectionately called the preacher, the motivation for teaching seemed to be to instill in us an appreciation of the beauty and spiritual discovery that he found in math.

This dichotomy between discovery and invention began much earlier. In elementary school, I was taught that an apple fell on Newton's head and he discovered gravity. At the time, this was not questioned, and it helped me remember Newton's name. Much later I learned more about Newton's life and his devotion to math and alchemy. Unfortunately, the seed was sown. That image of the apple persists. The people who discover these things are lucky geniuses who just happen to be in the right place at the right time.

In my K-12 experience, no one ever told me where the math came from. I just thought math was math. It was written in stone. Two plus two is four. The ideas seemed forever existent. When taught how to solve a problem, we did not question the strategy. Algebra was about following rules, and these rules did not change. It was not until my junior year in college that anyone talked about the history of math or the people who created it.

As a math graduate assistant, I taught a methods class to future elementary teachers. The professor I was working under had me teach the Mayan base twenty system. It was only then that I began to realize math could look different to different cultures. However, the contradiction still persisted. The more I looked at the history of math, the more I realized that seemingly isolated cultures came up with the same mathematical constructs. Zero appeared independently in Mesopotamia and in Central America. If math did not have independent existence, how could isolated people invent the same constructs independently. Math still seemed to be magical.

More recently this question came up in my math methods course for future high school teachers. One of my best students asked me if I thought math was discovered or invented. Of course, as a teacher my answer was, "What do you think?" He was on the discovery side of the argument, and he stated many of the ideas I have already discussed. The same math concepts spring up in isolation, and he had had a similar experience as me. He had worked on abstract math and come up with proofs in isolation only to discover that his proof was the same as one created hundreds of years ago. I told him of my experiences and then asked, "Would math exist if there were no people?"

I have also recently discussed this with both of my sons. One is an engineering undergraduate student and is much better at differential equations and applied calculus than I ever was. Although he is open to both sides of the argument, I believe he is currently in awe of discovery. He is seeing firsthand how the mathematical models are used to explain, predict, and modify experience. We both agree that the world seems to be well-ordered. We might even say the world is necessarily well-ordered, and math is humanity's attempt to explain this order. However, it is the belief that experience follows a mathematical model that is the source of my contradiction.

My other son received his BA in history and is an aspiring film student. He recalls his first math class as an International Baccalaureate-tracked middle school student. His teacher told the students that they were special and different than the other students in high school. Because they were smart and would be taking IB math, they would be learning mathematics that most people were not taught. My son said that even at this early age he realized how "messed up" this was. To me, this revealed how a cultural myth about mathematical truth supports a hegemonic social structure. I realized that the purpose of this cultural myth is to promote inequity in mathematics education in support of white supremacy.

### PRESENT

Today, I am caught up in critical theory. I have opened my eyes to how our ontological mindset concerning the nature of mathematics can produce oppressive or emancipatory outcomes. When we proclaim math exists outside of human knowledge and humans discover it, we limit our creativity, since anything other than the objectively perfect math must be a mistake. We relinquish our power. Math no longer comes from hard work, and we begin to see it as static and unchanging. We also begin to see the people who discovered math as having some supernatural ability that is not available to the common person. These discoverers are no longer humans. We have replaced God and Scripture with math and science, and the saints we worship are named Newton and Einstein.

The myth of the apple hitting Newton in the head portrays him as getting lucky. The truth could not be more different. Newton spent his life dedicated to mathematics and other scholarly pursuits. He accomplished so much because he worked so hard. Notice there are also myths that Einstein was a bad student, and he flunked math. Although there is no truth to these myths, they serve to dehumanize. Similar to Newton, Einstein was somehow special and gifted.

My question now becomes, why do we need to dehumanize mathematicians? The answer may be obvious. Teaching math in K-12 may not be about empowering students to create math. Perhaps, it is about indoctrinating students into a hegemonic social structure that requires them to accept math and science as producing objective truth and to accept that people who do math and science are special and deserve to be treated

as such. Notice this keeps students from questioning the inequities in our educational system and in society. People who are good at math are special and, therefore, deserve more. This lets students off the hook. They can rationalize that they are not one of those mathematicians. They are not interested in how their cell phone works. They just know it works. They are OK with letting someone else control the technological aspect of their lives, because the people who do mathematics are weird and dissimilar to them. Unfortunately, this mindset promotes inequity by creating a division between people who do math and people who don't.

The idea that all knowledge is human knowledge is fundamental to any critical pedagogy. Students must see themselves not only as doers of math, but they must see themselves as similar to the people who invented the math they are doing. All students do math every day, and it is only through the humanization of the ontology of math that we will be able to promote it as something that is intimately human.

### PROGRESSIVE

I imagine a future with math education based in a humanistic ontology. Math is presented in historic context with human perseverance at the heart of the discussion. Newton did not discover gravity after getting hit in the head with an apple. Instead, Newton spent his entire life studying math and alchemy. His advances in calculus and physics were a result of perseverance and hard work. With this mindset, formulas and rules are not static truths to be forced on students. Instead, students are allowed to invent math and see where their structure leads. In this way, students begin to understand that different assumptions lead to different conclusions, and that certain assumptions will always lead to the same conclusions.

By presenting math as a human endeavor in which all people engage, we can begin the transformation of math education to an equitable space. Math would no longer be about rigor and discipline; instead, math would be about creativity and hard work. Once students and teachers realize that all people do math and that math was invented by people similar to them, they will have the critical consciousness necessary to liberate math education from the shackles of mindless procedure. Math would no longer be about following the rules and language of the dominant culture. Instead, math would be the most creative class in K-12 education. Creative exploration of structure would be the norm, with students formalizing their own thoughts, and exploring the thoughts of previous generations. Instead of the current situation with much of math education being about memorizing formulas and following rules in order to perform well on standardized tests, learning math would be about removing the contradictions between current understandings and new information.

### ANALYSIS

I have seen the wonder and beauty in mathematics. I understand how this can lead to a belief that it exists objectively beyond human understanding. This is an illusion. Any appeal to mathematical realism is ad hoc. The question becomes, what math is the real math? At one time people thought that Euclidean Geometry was a godlike perfection of reality. We then found it does not work on many larger scale problems. Instead of being a perfection of reality, I now see mathematics as art. Just as the artist captures beauty in landscapes, the mathematician expresses beauty in the order of experience. The artist's painting is not the landscape, just as the mathematical model is not the experience. One can insert a higher being to solve the contradictions in the question of whether math is invented or discovered, but this ad hoc solution only prolongs the issue.

On the other hand, the conceptualization of math as a human endeavor is strongly aligned with critical pedagogy. Mathematical artifacts have been created in all cultures throughout the world. When math is presented as a creative human construct, students realize they already do math. This is why a humanistic approach to the ontology of math is a foundation to equitable education. One of the main goals of a critical pedagogy is to empower students to believe they can be historical (Freire, 1968/1996). To promote positive mathematical identities, math educators must encourage students to believe they are inventors of new mathematics. In this way, our ontological conceptualization of math affects how we teach and learn mathematics.

### SYNTHESIS

Conceptualizing mathematics in alignment with critical theory, Skovsmose (1994) explained math as a formalization of language and behavior. He stops short of stating that math is abstract thought. Gutierrez et al. (2023) discuss mathematics *conocimiento* as a cognitive abstraction in which all humans engage. For them, everyone uses pattern, relation, and structure to make sense of experience, and critical inquiry reveals a need for mathematics *conocimiento* to be the foundation for learning more formal mathematics. By conceptualizing math as this cognitive abstraction in which we all engage, we acknowledge a shared humanity. We put an end to positivism. All mathematics is and was built by humans, and math becomes a type of cognitive abstraction where humans use quantitative and spatial reasoning to make sense of experience.

I find Popper's (1972) three worlds to be convenient structure for discussing a humanistic ontology for math. The first-world consists of all objects in the universe. This world is the focus of study for physical science. I submit that math does not exist here. The pulp and graphite utilized when doing mathematics with paper and pencil exist in the first-world, but the math itself does not. This first-world may necessarily be well-ordered, and math gives us a powerful tool for describing the order we experience, but this well-ordered universe is not obeying mathematics. Popper's second-world of cognition is math's home. This world is unique to each individual. This is where math is invented and practiced. Everyone cognitively performs math. This is similar to Gutierrez et al.'s (2023) mathematics *conocimiento*. Popper's third-world consists of human made products. This is where an individual's math is shared. The written mathematical expression exists in the third-world, but the math itself is performed in the individual's second-world. When we see someone else doing mathematics, when they explain their math to us, they use artifacts to demonstrate their understanding. The third-world is where Skovsmose's (1994) formalization of language and behavior lies. Without the use of Popper's third-world for communication, there would not be these formal constructions we label as mathematics.

Formal third-world mathematics are human expressions of our cognitive understandings of order. These representations may or may not be useful in modeling experiences of the first-world, however, even when a model is useful, it is a mistake to believe it is an objective truth. Physicists changed the theory of gravity from the Newtonian model to Einstein's relativity not because the universe changed, but because relativity is more encompassing. It explains previously misunderstood experience. Notice, Einstein died working on a unified field theory. He knew there were still contradictions in even the best models. The first-world does not follow our model. Instead, third-world models are explanations of our individual second-world experiences.

The myth that mathematics are objectively true, appears partially because formal school-based mathematics are almost always deductively true. Students are taught mathematical proofs are true because they must be. This can lead one to believe that proofs exist before they are invented. This is an illusion. Formal mathematics begin with counting numbers and undefined terms such as point and space. These are as close as mathematics get to Popper's first-world. There are no points outside of human knowledge. A point can't be drawn without adding thickness, but people can agree on the concept of a point. People can formalize the idea of a point in their second world and use third world language to explain their concept to others. We can then invent axioms based on these undefined concepts and use the rules of logic to build formal mathematical structures. Some of these structures such as Euclidean geometry are extremely useful for modeling experience, but structures exist that are applicable when Euclidean geometry is not. Every mathematical model fails in certain situations.

As a mathematics educator aligned with critical theory, I believe that all students have the capacity to learn nonroutine mathematics. This begins by promoting positive math narratives. I want my students to believe that they are capable of inventing math. They are historical. This radical empowerment is best achieved through a critical pedagogy where the teacher-student contradiction is erased. Both student and teacher must believe that all people do math. To support equity, we must deconstruct the meritocracy that is supported by this cultural positivist myth that mathematics is this ultimate truth that exists beyond human imagination.

I see no benefit to framing math as somehow existing outside of human knowledge. However, the philosophers and mathematicians who have historically posited mathematical realism do have something to gain. If mathematical realism is true, then mathematicians are in contact with a higher realm. This places an enormous amount of cultural capital in the hands of the mathematician. The argument is that they alone are able to converse with this higher power. This myth places mathematicians as the epistemological Shaman of society and puts truth in the hands of the mathematically educated elite. I grew up in a cultural tradition that posits some knowledge as authored by God. I think this is the root of mathematical realism. For many in my culture, there is a belief that mathematics somehow exist outside of human knowledge and are divinely posited onto unusually gifted people. To ensure math is accessible to all people, this oppressive ontology must be replaced by a humanistic approach. One truth seems to be unquestionable. All knowledge is human knowledge.

This result may not be satisfying to the most ardent philosophers, as I do not rely on a philosophical argument. People define mathematics. In the end, I suggest this framework because it becomes necessary. Throughout the shared history, highly educated humans in oppressive societies have argued that they alone are discovering real objective knowledge. Scholars use the tools of philosophy and math to prove that they alone possess truth. By critically looking into these elitist biases that are housed in circular arguments, I now understand how these arguments support their authors by giving them divine insight. These arguments have worked to support a hegemonic class system, with scholars justifying their existence while their sustenance is maintained by an historically underpaid and often unpaid working class. When this is understood, you can begin to think critically about why these arguments persist. As for me, I have reconciled my own contradictions, and the answer is clear. Math is not magic. The universe does not count.



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# GRADING AS CREATIVE WORK

By Vanessa Winn

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As I round out the last semester of my fifth year as a full-time faculty member, I find myself contemplating the workload, the balance that a strong assessment with too many students on my caseload is too demanding. Balancing weak assessments with large caseloads is boring.

Grading, when done well, pulls me in. I know that I will be better able to meet all the demands of my job if I spend less time grading that social studies inquiry unit. I know that I will generate time for other administrative tasks if I simply answer the question that a student asks, as it is asked.

Maybe the students will never read this feedback? Will a sufficient passing letter grade be the only thing my students see, or they will look for, at the end of the semester?

I have chopped up assignments in the name of scaffolding to reduce the bulk of feedback at any given point in time.

I strategize, plan, and work towards a combination of what's best for me and what's best for my learners.

As I pushed back from my desk at the conclusion of a sprint-summer semester, I felt spent. It was a sprint semester on top of a semester's worth of grading, and I was tired. Then it occurred to me—that for me, grading is creative work. The style that I adopted, and value most, is not only judgment of what has been done but an imaging of what I would do if I were the creator of their curriculum content plans. I walk on the paths with them through long curriculum projects.

I offer students next steps that are concrete, walkable, and scaffolded. I reimagine plans at their conclusion and wonder, if I taught this what else I would add.

A semester is full of near-constant curriculum design. Although I put down the “planning” when the course opens on week one and consider it done, I have come to rethink how I prepare myself for grading. Grading is not a task. It is a creative endeavor.

It is fine to critique that I probably should not be grading at all. Or I should be considering a model of “grading for equity” (Feldman, 2023). I know that adopting a system like this might create a framework in which my feedback has more weight for students. Regardless of the grading model, it is evaluative and summative at the conclusion. This essay is a study of the process of giving lengthy and specific feedback about next steps, suggestions for adjustments, and being *in* the curriculum as I grade.

My emphasis here is that grading is creative. It has a creative demand. It has a learning demand that asks more of me than completion. Changing this orientation to grading aligns my practices as a professor more clearly with what I say that I value—teaching is learning (Freire, 1998). This is obvious, but I clearly missed it, or I never really articulated it in a way that exactly prepared me for the creative load of giving feedback on assessments. I think that without this very intentional mindset before I start grading, it becomes about students not reading directions, or not interpreting the readings in ways that are fully functional for the tasks assigned. I don't orient myself to grading like I orient myself to teaching. Teaching and learning in the classroom make ample sense. I know when I am tired afterwards. But grading is creative work.

Perhaps the connection is latent because I didn't develop my style out of philosophy. I developed my style of giving written feedback—grading—on assignments by receiving my own.

### REGRESSIVE MOMENT

I arrived at college as a first-generation student, on a generous scholarship. Someone saw potential and possibility in me from somewhere in an admission's office. But I often wondered for the first year if I was let in by accident. I figured out ways to blend in with the more traditionally accepted student body, but my writing betrayed me, and I was assessed on it continually.

I had always had a strong urge to write. I wrote extensively in journals to name and understand my experiences and the world around me. But I got feedback time and again with directions like, "Write a clearer thesis." "Can improve grammar and conventions." I did not have a strong internal voice reminding me to not end sentences with prepositions, when to use a comma, etc. I wrote effectively for meaning, but not conventions. And I struggled to construct essays that clearly expressed my sense making. I was a "weak" writer.

I diligently pursued the writing center at the university, and I attended office hours with my essays. I had a friend from high school proofread my work for an entire semester, me studying why the changes were made. I applied myself to a set of rules that allowed me to feel more and more like I belonged in the place that had accepted me and paid my tuition.

But it wasn't until I took a class in Multicultural Education, with Professor Henry, that I learned to clearly express a strong voice and style to accompany my new rule-bound essays. The assignment was simple and straightforward: write an essay about yourself in a series of narratives that you analyze using social theories from the course. Choose a few aspects of your personal identity to explore, and write what I would call a positionality paper.

It was a generative, rich assignment with room for personal voice, application of academic learning, and an essay that could not be completed in five paragraphs. Using Microsoft Word's Track-Changes, she reviewed my essay and did one of the greatest academic gifts for me. She didn't just say "revise here." She re-crafted my sentences to be cleaner, she reorganized clauses for clarity. She rewrote sentences so I could see what ending a sentence without a preposition sounded like conversationally, without losing sight of the rule. She rearranged paragraphs to show that reordering my essay created clarity. Then she left notes in the comments feature telling me what she changed and why.

She did that work over the course of three drafts. As a junior at the time, her tutelage via revision was what I needed, when I needed it. Her grading was instrumental in how I understood the process and value of revision. She did not just say, "Do it." She showed me how I could craft my own writing for clarity, message, and tone. She crafted *my* stories.

While the folk in the writing center and other professors refrained from "doing the work for me," it was "doing the work for me" that created a fertile place for my relationship with writing to blossom. She never rewrote the whole essay. She didn't tell a new story. She clarified the one that I wrote; she validated my narrative while helping me find a literacy of telling that was intelligible at the university, among people who felt comfortable in the earliest days of being writers. I also left my undergraduate program a writer, without qualifiers.

### CURRENT MOMENT

I am seeking to shore up and appreciate all parts of my work. My primary teaching commitments are methods courses in social studies for prekindergarten to grade 5

preservice teachers. In the examples chosen here, I am referring to an inquiry design curriculum project (Swan et al., 2018). Students choose topics, research, provide draft sketches of their curriculum plans, and then submit the final inquiry.

With each group and iteration of the projects, I find myself walking along with my students in curriculum development. Their projects are never just their own. They have a piece of my creativity in each project. For example, a few semesters ago I had a group who were trying to address a fifth grade standard concerning the role of markets in food diversity of the western hemisphere. The literal emphasis on pictures of food and vendor markets in the western hemisphere was not helping students understand the economic market's impact on food access. So, I redirected them towards a topic studying one food dish and the diversity of locations from which the ingredients came. In another instance, students addressed fourth grade standards about the impact of human activities that are both positive and negative. Students had trouble connecting to something concrete. I suggested a study of the Cuyahoga River in Cleveland, Ohio, as a study of human impact. The projects as they continued were their own, but I was a part of those curriculum projects.

I have considered over time what my role is when suggesting and insisting on revision for students. I am attempting to theorize my assessment as more than adherence to rubric definitions of quality and saying, "Something different belongs here." "You need a richer topic." Instead, I offer my thoughts and suggestions. I synthesize my feedback into short audio recordings suggesting new searches, additional sources, and different organizations for coherence.

About a year ago, at the end of a round of curriculum projects, I pushed back my chair and realized I was tired. I was not sure why. In that moment of introspection, almost by accident, I realized my own conclusion about why I was tired: grading is creative work.

### **IF GRADING IS CREATIVE WORK**

"Theory as Liberatory Practice" (hooks, 1994) was laser etched by a friend of mine onto a piece of live edge pine that hangs in my office. When I began graduate school, I deeply resonated with the value of theory in my life. As an early teacher, I experienced systemic oppression with and among my students, but without a name, it was hard to grasp and explain to myself and others. If I theorize grading as creative, I believe I can better prepare and manage expectations for the experience. If I name it, I understand (hooks, 1994).

Prior to this essay, I described teaching, writing, and research as creative. Yet the concept that grading is creative eluded me. It seemed like the summarizing process to a teaching project—something to be done. Perhaps others already know the creativity involved in grading, so I am late to this game. But this is my story, so I am here telling it to myself.

"There is no teaching without learning" (Freire, 1998, p. 31). Yet, much of the way I've applied the theory of Freire is my philosophy of teaching, instruction, and curriculum design. For me, grading as a technical activity feels like an afterthought to the dynamic energy of a discussion and activity-based class experience. Yet, grading and assessment do not have to be technical activities. Greene (1995) likens teaching and learning to a quest. I sympathize and appreciate the "lure of incompleteness to be explored" (p. 15).

We hope that students will be active learners “who can best learn if they are faced with real tasks and if they discover models of craftsmanship and honest work” (Greene, 1995, p. 13). When Greene mentions craftsmanship, I think of a workshop complete with all the materials and tools necessary. It would obviously be a space well used, with wood burnished by blisters, and the smell of wood glue. The workshop is not empty. It includes a craftsman and a mentor. There is an expert, or at least a person who shows up every day to do the craft work.

I wonder, sometimes, if I offer too much when grading. Do my designs and plans minimize the learning of students? This is certainly possible, especially because of the power imbalance between students and teachers. They may end up accepting my ideas without also taking up greater creative ability with the curriculum. It is possible.

Yet, when I grade, I feel like that craftsman. The design and search for engaging, rigorous, and creative curriculum is never depleted. We could build a thousand inquiries alongside students, and there would still be room for creative development in inquiry-based curriculum. When I work alongside students, developing curriculum, I am walking the path with them. If I conceptualize grading as a walking journey, then “we make the road by walking” (Horton & Freire, 1990). I have an active role to play that is collective and rewarding when I consider grading in these frameworks of education. In small moments of giving feedback, suggestions, and creative extensions in curriculum work, I am being “formed or re-formed as [I] teach” (Freire, 1998, p. 5).

### GRADING IS CREATIVE WORK

I assert that grading is a creative process that drives curricula. Grading is an active, generative, collaborative process, because grading in its essence is creative work.

Curriculum theory points us towards the importance of intellectual engagement (Pinar, 2019) and the educator as entangled and joined with the “complicated conversation that is the curriculum” (p. 23). Disconnecting the teacher from theory and practice risks dehumanizing a profession whose central question is: “*What knowledge is of most worth?*” (Spencer, 1860, as quoted in Pinar, 2019, p. 15). I understand my curriculum of grading and feedback is closely tied to my identity. It is tied to my experiences, perspectives, current knowledge, politics, and values. By grading, in this style, I offer something of my own answer to *what knowledge is of most worth* in each iteration, which may not be uniquely my own experience, knowledge, etc. It is grounded in myself. I offer suggestions based on my interpretation of *what knowledge is of most worth* for inquiry-based curricula.

Eisner (2002) identifies the art of teaching in four dimensions: teaching is an aesthetic performance, teaching requires qualitative judgments in real time, and teaching is made richer by anomalies and unpredicted events that require the ability to respond “inventively.” Finally, teaching is like art because “the ends that it achieves are often created in process,” and artists, “discover ends through action” (Eisner, 2002, p. 155). When grading inquiry-based assignments, the topics, approaches, and purposes of the curriculum change each semester and for each group. By reviewing projects, I trust that I will have something to offer as feedback or suggestions. I cannot pre-determine which parts of the plans will prompt what feedback. But I trust that I will discover what is helpful by exercising my ability to read, think, and respond.

My evolving knowledge prepares me to meet each new student-created curriculum plan as a new reader. Using reader response theory (Rosenblatt, 1978), I assume that

the dynamic between my students, the inquiry plans (as text), and myself as the reader have multiple opportunities for dynamic engagements that generate curricular guidance in grading. Rosenblatt's (1978) observation that "the individual reader has seldom been acknowledged as carrying on his own special and peculiar activities" (p. 4) holds true in contemporary conversations about grading. For many reasons, attention and critique of assessments that are simplistic, reductive, and dehumanizing for students should be made (Eisner 2002; Pinar, 2019). Yet, less attention has been paid to the reader, the grader, the educator whose peculiar activities can be curricular, creative, and pleasant (Rosenblatt, 1979).

### SYNTHETICAL

One of the best pieces of advice an artist and friend gave a group of her students is that creative work requires time. She understands writing as creative and so recommended time and space for the task that is not just a process of aggressively "knocking-out" 10 pages, but creating something new.

When I prepare for grading, I now consider the experience one in which I can learn. I set intentions for grading that are aligned to the students' needs and follow-up instruction in the course. I also set intentions for my learning:

Today, I intend to consider how I can improve this curriculum plan.  
 Today, I intend to walk alongside students who are curriculum writers.  
 Today, I intend to offer my current-best energy and effort toward this shared curriculum project.

In the end, I am not working alone. Students sometimes reject my suggestions. At other times, students take part of what I suggest while not adopting the rest. Sometimes, due to a myriad of factors that I cannot name, students implement none of my suggestions. Yet, while assessment and grading provide great feedback to learners, this particular essay is about my own experience.

Conceptualizing the process of grading curriculum that involves my unique, human contribution to the task helps me avoid the boredom of grading as a rote task (Greene, 1995). I feel philosophically and ethically grounded in the practice of grading. I am attempting to create a context in which students "become authentic subjects of the construction and reconstruction of what is being taught, side by side with the teacher, who is equally subject to the same process" (Freire, 1998, p. 33).

As an undergraduate student, I was being seen by Professor Henry. I felt capable of continuing to create because she walked alongside me in the process of articulating my narratives. And as a professor now, I consider what a monumental to-do list a pile of students' positionality narratives must have seemed on Tuesdays, all the while having department meetings and advising and caregiving commitments from above and below. When Professor Henry sat down to edit my papers, she left a piece of herself behind in my writing. I cannot point to any particular turn of phrase or style choice I adopted that is hers. I cannot even remember much of what she contributed to the paper or how she changed my thinking. But I remember that it must have taken her a lot of time, presence, and caring about my narrative to put so much of herself into the task of grading it three times. Through the theoretical lenses of care (Greene, 1995), learning (Freire, 1998), and lived experience, I remind myself that grading is creative care work, and I have the choice to engage technically or ethically with my students.

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# ON WHOLENESS AND DEVOTION: THE PROGRESSIVE STEP

By Bruce Parker & Ren Q. Dawe

*Independent Scholars*

This article is a continuation of an ongoing *currere* project the authors began in “On Wholeness and Devotion” (Parker & Dawe, 2023). In the progressive step of *currere* (Pinar, 1994), we turn to the imagined future. We look to what is not yet the case, what is not yet present. By way of introduction the authors share insight into their present as they turn to what someday may be. Ren Dawe’s imagined futures as a trans person wrestle with identity, humor, and hope. Wholeness in the queer experience shows the necessity, through a progressive lens, of both learning how to *cope* and learning how to *hope*. Parker’s Progressive Devotions build on an understanding of devotion as an intense and deep commitment or love that is expressed through action and ongoing practices. These devotions engage with facts, words, and imagination as concepts in imagined futures. We share notes from our present to ground our future-focused writing.

## REN: THE NECESSITY OF OPTIMISM

As I read our *currere* piece “On Wholeness and Devotion,” which centered the past as a means of understanding one’s present, I am actively sitting at the precipice of a future I never imagined would be possible. In that article, I analyzed wholeness as it related to transness, as it related to my life as a queer academic, and as it related to the collective queer experience.

Imagining a future as a trans person requires a holistic understanding of three things we are taught to suppress: a solid sense of identity, a good sense of humor, and a firm grasp of hope. Wholeness as transness has shown itself to me as a lesson in discovering identity; wholeness as a queer academic has made me into a student of joy and shown me its inner workings through humor; wholeness in the queer experience is now woven into a larger narrative I hold about how our human experience is not just in learning how to *cope*, but also learning how to *hope*.

After finishing my graduate studies, publishing my first academic paper, nearly ruining all of my relationships, and facing multiple daunting medical procedures, I jumped into a passion that has since taken over my life—performing. I am about to embark on my first national tour as a comedian, which is a statement I didn’t think I would ever get to say. A month from now I’ll be in a car, then on a bus, then on a plane, then on a train, and on many, many stages ranging from grandiose wooden thrusts to splintering pallets shoved in the corner of cigarette-stained pubs. My contributions to this article speculate on the concepts of wholeness through the imagined frames of desired futures—ones that follow a path of discovering identity, humor, and hope.

## BRUCE: AND THE PLANETS OF THE UNIVERSE GO THEIR WAY - SEPTEMBER 2023

On August 30, 2023, there was a Blue Supermoon. Blue Supermoons are rare. There won’t be another until 2037. If the full moon is understood as a sign of birth, death, rebirth, and transition then the Blue Supermoon should be understood as a more powerful sign of those concepts. If one believes that the planets influence our lives and interactions with one another, then this is a moment of significance and meaning. Believers of astrology might claim that even the planets understand that change is imminent and pause, as they go their way, to send us that message. The days are still



uncomfortably hot in Boulder, Colorado, with temperatures often reaching into the 90s, but the nights have started to cool down. The season is changing from summer to fall. In Colorado, winter is never far behind fall.

Just like the change of seasons is inevitable, so are the changes I am facing in my personal, professional, and intellectual lives. We began this *currere* project on Winter's Solstice 2022. We found our way to the reflexive step needing to better understand where and who we had been. I needed then, and need now, to put myself in context and, however tentatively, situate myself in time. Now with things feeling increasingly uncertain and people and commitments that have been foundational in my life for more than a decade coming into question, I find myself needing to ground myself in the present and my future, imagined or otherwise.

Ren and I have had many late-night discussions about our difficulty imagining futures when for much of our lives we have been taught that futures are for other people. With the current political and cultural climate in much of the United States and around the world, it is hard not to see the presence of the pervasive belief that lesbian, gay, bisexual, trans, and queer (LGBTQ) people aren't meant to survive. The only offense greater than people like us surviving is for us to thrive. Growing up working class in Southeastern Kentucky taught me at a young age that the lives of people who live in poverty and in regions of the country thought of as undesirable are just worth less to the majority of society than the lives of the affluent and well-educated. For me the progressive step of *currere* is an act of survival and resistance.

#### REN: 1 - WHOLENESS IN IDENTITY - NOVEMBER 2027

I start to my alarm, blaring at the absolutely disrespectful time of 10:30 a.m., which should signal to most people that they are abhorrently late for the day. For me, it's only six hours after calling it a night. I am in a hotel in New York, the morning after a show. It's rare I'm in a city that sleeps as little as I do. But now I need to quickly pack all of my entropic entrails into a suitcase to make a 2 p.m. flight.

When I was younger, big cities terrified me. Growing up as a small-town queer in West Virginia, metropolitan beasts such as public transit were foreign to me. Now, I could juggle a convoluted bus schedule with my eyes closed—which I may have done this morning, as I multitask recovering from a hangover and not missing my flight.

Though it feels like I'm just going through the motions, it is not lost on me that I seamlessly progress through airport security in a way I never could as a younger man. "What are they even looking for? I'm literally missing parts." I would wonder when I would routinely be pulled aside, patted down, and scrutinized before anxiously making my way to the sweaty seat in economy with my name on it. All my documents have a happy (albeit expensive) "M" seated in the middle, and nobody pays it any attention as they scan it and wish me a good flight. Such an insignificant letter on such an overlooked piece of plastic, and yet I know it is the culmination of countless lawsuits fought, protests organized, riots started, and papers filed. It's funny, spending several decades in the closet, just to make being queer a career, I laugh to myself. My "niche" is queer comedy—specifically, trans comedy—and yet I now identify more as a comic than a trans man. Transness has been a gateway to that identity, a market, a means. My identity now feels chaotically embedded into neon-soaked rooms, blackout curtains, and tangled aux cords—a caricature birthed out of something between a gay club and a comedy club.

The wholeness that comes with my identity isn't in a firmness or solidness; it is in its fluidity. Forever traveling to the next gig, forever finding enjoyment in things devoid

of gender and brimming over with it—the color pink, regional accents, alliteration, lighting. The wholeness of my identity comes from familiarity with who I am now and not the person I’ve been. In deciding to become familiar with the man I wanted to be, I found the thing I wanted to do. And in doing so, conveniently got over my fear of flying.

### **BRUCE: 1ST PROGRESSIVE DEVOTION - FACTS - JANUARY 2027**

I have no one but myself to blame for this 7:30 a.m. meeting to review proposed legislation for Colorado’s upcoming legislative session with Michal. We are sitting quietly at their desk reading over bills to ensure we don’t miss any positive legislation we might be able to help become law or any harmful legislation that might move forward under the radar. I brought coffee for us both, and they brought bagels. We have done this together for a few years now. At this point, I have been doing some version of this process with colleagues before a state legislative session starts for more than 15 years. I am still not sure how good I am at it, but I know that my skills have improved over the years. I learned to seek the facts underneath the words in the proposed legislation because I had no choice. In those early years in Louisiana, no one else was looking for intended or unintended impacts on LGBTQ people. Sometimes education and activism are not glamorous or fun, but a necessary act of trying to survive and protect the people and communities you love. For me this work has always been about survival and feeling free to find joy.

My time in the Louisiana Governor’s Office taught me that to understand possible impacts you should read proposed legislation in the context of current law. “Line by line,” was Tina’s comment when we would read proposed statutory language. Tina, the Governor’s lead policy attorney, was a great teacher of legislative analysis and a patient friend. My time with Rocky Mountain Equality reading legislation with Michal has helped me learn to read creatively, seeking possible holes in the legislation that might allow hateful policies to be considered legal. We try to read all introduced legislation because bills related to housing, education, the environment, transportation, healthcare, and any other issue also impact LGBTQ people.

At 9 a.m., Michal suggests we take a walk to clear our heads. I listen to them talk a bit about the bill they just finished reading about tax rebates for solar powered car owners. Always insightful, Michal can tell that I am distracted. They ask me where my head is, and I start rambling at them, “Policy, legislation, and the law being subjects that I am more than conversant with, but not quite an expert in, is difficult for me.” We end up having an in-depth conversation about what each of us considers ourselves experts in and how that expertise has evolved throughout our academic and professional lives. I tell them,

My elementary and high school educations were more focused on gaining discrete facts about who wrote what famous novel or who wrote what classical symphony. I thought that cultural knowledge learned through hours and hours of flipping hundreds of index cards from front to back to memorize facts was the key to being smart.

I pause for a moment and then with sarcasm in my voice I tell them, “As you see, I use that information every single day of my life.” I learned those facts without context. As we turn to walk back to the office, I feel content walking beside a trusted friend and colleague and let my mind wonder if Tamora had made it to the office yet and found the Yerba Mate that I left her.

**REN: 2 - WHOLENESS IN HUMOR - MARCH 2024**

Today is my first time headlining at a comedy club, and I am nervous. In some sort of futile effort to not feel alone—or, god forbid, lonely—I call in the troops.

“Cara,” I say before she even answers. “Cara, I’m cashing in a friendship coupon.”

“Oh-ho-ho-ho! We’re in friendship coupon territory? Alright, get Tara on the call.”

We three-way-dial in Tara, like some early 2000s teen sitcom, and she answers right away. They both know I never call unless it’s important.

“Tara, Ren’s cashing in a friendship coupon.” Cara declares.

“Oh, so it’s serious then. Ok hold on, I’m getting in my car, Ren babe, what do I need to do? Do we need a pep talk? Or do I need to unleash my precariously bottled Floridian mania onto someone’s car?” I know Tara is both kidding and stone-cold serious.

“No y’all, I just need you to tell me I’m funny.”

“You called all the way from New York just because you needed us—”

“—the two people who you literally started doing comedy with—”

“—the two people who have literally workshopped your worst jokes with you—”

“—to tell you that you’re funny?”

They both laugh, barely able to let the other finish a sentence, and their laughter soothes the tension building under my collar.

“Babe, you have celery content—and it kills. Nobody can make celery funny but you.” Tara chides.

“That’s not true,” I say, “John Mulaney has an entire bit about tuna that kills.”

“Yeah, but that’s John Mulaney—” Cara starts.

“—and tuna salad is low-hanging fruit.” Tara finishes.

“I don’t know where this self-pitying, low confidence little ass bitch came from, but could you put my friend *Ren* back on the phone? I’d like to hear something funny.” Cara has a way of roasting people as a form of affection that I’m quite fond of. She is a reformed school bully turned special ed teacher and probably the most compassionate person I know. “You’re telling me that you’ve been in New York for a week and not a single funny thing has happened to you?”

“No nightmarish hookups?”

“Creepy old men?”

“Scary young lesbians?”

“Not even a judgmental fashion statement?”

My friends always know the right thing to say when I’m feeling low. More importantly, they know how to make me laugh. More than a pep talk, more than an ego boost, more than even being kind—they know how to make me laugh, and that always breaks the tension.

Still not quite satisfied after our call, though, I punch in one more number as I start the shower and lay out my clothes for the night.

“Well, if it isn’t the magnificent Ren Darius.”

“Hi Cricket,” I smile.

“Hi handsome man.” I hear him smile too. “What’s up? What’re you doing?”

“Not much. Over-rehearsing this setlist, trying to not have a panic attack.”

“Is tonight your gig in Greenwich Village?” He asks.

“Bingo.” I answer.

“Are you excited?”

“Yeah,” I lie.

“Are you nervous?”

“Yeah,” I don’t lie.

“You’re going to do great.” He says warmly.

“Thanks. Can you just . . . can you just please tell me I can do this, please?” I cringe immediately after letting the words leave my mouth, knowing I sound dreadfully needy.

“Babe, not only can you do this, you’re going to do it really well. And even if you don’t,

it’s going to be good. Remember when you were opening for Mo Alexander and then you laughed so hard that you fell out of your chair?”

“Best and worst moment of my entire life,” I laugh.

“Right, and it was exactly as it was supposed to be. Because sometimes the worst things that happen . . . ”

“ . . . are the best things to happen.”

“That’s right.”

*Sometimes the worst things that happen are the best things that can happen.*

The same night I fell out of my chair in front of Mo Alexander, I also bought him tequila shots and tried to convince him to be my friend. Mo Alexander was big in the Denver scene, absolutely hilarious, and highly intimidating. I wasted no time in asking him why he started doing comedy, to which he told me that it was easy to make kids in school laugh—but the real power was in being able to make the teachers laugh, too.

I opened up to him right away about why I started doing comedy: my favorite comedian told a bad trans joke on national television. Upon hearing his joke, I was heartbroken. It was bad enough to hear it on the news that people thought I was more than an outcast—that I was a social deformity, a defect in society, a nuisance that should be eradicated. It brought a whole new level of pain when I heard it in a space that is supposed to elicit joy and explore misconception. I was sad, angry, indignant, and frustrated that my life—something that I knew to be amusingly ludicrous and illuminating—would be the subject of so much hatred following such a bad joke. And, suddenly, I became very determined to prove to the world otherwise. I decided I wanted to tell trans jokes that were funny for everyone, not because they weren’t dark or dirty or downright crass, but because they were true in illuminating the absurdity I’d experienced in our binary-obsessed society. I set my sights on an open mic at a smoky pub in Atlanta, Georgia, and I went.

“Good bad jokes save lives,” I said.

Mo laughed, but not in the ha-ha-funny kind of way, in the way we laugh when something feels so true that we can’t just sit in silence as it lands in our psyche.

“Good bad jokes save lives,” he said back to me, smiling.

We toasted to that sentiment over three rounds of tequila shots, and I fell out of my chair—laughing like a maniac—approximately 45 minutes later. The wholeness I experienced in that moment—elation, embarrassment, a sore tailbone—was fairly unparalleled in its intensity, since an entire room of eyes was on me as it happened. Something about being witnessed in such a moment of hilarity and shame made that ripple effect on my life feel bigger, more impactful, and more seen. The beauty of humor is that it exposes this wholeness—the rottenness and the perfection—of our lives. Jokes crack open parts of our society, our routines, our expectations or lack thereof, and it makes it accessible through the addition of curiosity. This lens of curiosity changed my entire world and my entire being, because getting curious about my world allowed me to get present in it. And the present is the only place where joy can live.

“I miss you,” I sniffle into the phone. “Promise you’ll still like me when I get home?”

“I promise,” he says.

And I almost believe him.

**BRUCE: 2ND PROGRESSIVE DEVOTION - WORDS - AUGUST 2033**

The sound of my voice reading and rereading the same two sentences aloud as I make small changes to the document is the only sound in the room. Eventually I am satisfied, for now, and believe that I have gotten those two sentences right. I take off my gray framed glasses and set them aside and rub my eyes. I am sitting in my home office on a quiet Sunday morning writing and waiting for Ren's arrival.

The sun streams through the open window that is partially blocked by the top two shelves of a wooden bookshelf that I have had for almost three decades. While forcing myself to pause and enjoy the warmth of the sun on my skin, I notice that the plants on the top shelf are reaching toward the light and make a mental note to myself, that I will likely forget, to turn the pots around so they won't end up leaning too far on one side because of reaching for the sunlight. The four shelves below it are full of essay collections and books about writing that I have read more than once. The walls are white except one deep blue accent wall that my desk faces, which Ren painted to make my office feel more like me.

I have the same desk that I have had since before I moved to Colorado. It is too big, but when I saw it in the furniture store in Baton Rouge during the height of the COVID-19 pandemic, it just felt right. Aside from my blue Apple desktop, a letter from Rhonda, and a handful of books including Ren's most recent poetry collection that he asked me to write a brief foreword to, *Bluets* by Maggie Nelson, and a recently published book that collects the lyrics of Stevie Nicks, the desk is empty. I am trying to improve my focus while writing and have convinced myself that the contents of my mind are directly connected to the contents of my desk. If the past is any predictor, I will pivot from minimalism to embracing my natural proclivity for clutter in the coming weeks.

I rise from my simple wooden chair to stretch, refill my large water jar, and observe to myself that after sitting for an hour my back is less stiff than it would have been before Ren bought a navy blue cushion and tied it to the chair without talking to me. I know that the color was selected with care and intention in an effort to ensure I liked it enough to not just remove it. It worked. Until recently I have preferred desk chairs to be flat, firm wood with no padding or a cushion. These last few years my lower back would be extra sore after spending hours writing. I laugh to myself under my breath about how, almost 12 years later, he still manages to make me feel special and worthy of love in big and small ways. He will be home late tonight from a six stop comedy tour through Appalachia. He has won the audiences over the same way he won me over, his larger than life presence and his carefully selected and well delivered words.

I feel a bit guilty that in a couple days we will turn around and leave on the long drive to Portland to be with Carrie, Dave, and Blake for the weekend of Blake's 16th birthday. I know Ren will be tired but won't let it slow him down. I walk to the kitchen and stir the chili in the slow cooker and feel proud of myself for cooking. A small thing, but one I am still not confident in doing. I push insecurities about my cooking skills from my mind and focus on how he will be happy I tried. He has only been gone 2 weeks, but I know we won't get much sleep tonight after being apart. I have two letters in envelopes waiting for him on the kitchen table. No matter how many years I spend focusing on words and how convinced I become that sometimes less is more I always find myself with far too much to say to be brief.

I am eagerly awaiting the proofs of my second essay collection, the first to be published by a press, to arrive. I hope they come before we leave on the drive so that while we are in Portland I can convince Carrie and Ren to read through them with me to catch any mistakes. My tendency to reread the same section of text over and over

making small changes until the last possible moment remains, and I need their help to not fall into that trap and slow this process down.

### **REN: 3 - WHOLENESS IN HOPE - JANUARY 2024**

It is hard to imagine a hopeful future as a trans man. It is hard to imagine a future at all. When I first came out and went on testosterone, I was told by my peers that I would regret it. I was told by my parents that I would suffer because of it. I was even told by my doctors that we didn't know all the risks involved, that it could come with a heavy price.

"I'd rather die a happy young man than a suicidal young woman," I would joke, but it wasn't a joke. It was a real decision, and one I still make every time I inject myself with this little syringe filled with oil and sex hormones. I imagine this was a similar but different line of thinking other queers had before I ever came along. Hormones used to be exclusively a black market commodity, and queer lovemaking in and of itself was deemed a dangerous and sometimes lethal act. And to top it off, the oldest trans person I knew until this past year was 35. My perception of rainbow elders is skewed, and heartbreakingly so.

A trans friend posted a picture of a fairly average-looking old man with a long beard, smile lines, and a short caption. They were a 75-year-old trans man, had been on hormone replacement therapy for 20 years, and seemingly, were thriving. "We get old!" I exclaimed, both in sarcasm and in relief. It's hard to believe you have a future when you know no one like you that has one.

Hope is something I pushed away for a long time. The hope of ever becoming a boy, the hope of ever being loved, the hope of ever allowing myself to be loved, the hope of becoming a performer, hoping for success, hoping for health, hoping for peace, hoping for rest, hoping for time. It doesn't take much tragedy for hope to feel like a cruel taunt in the face of grief. Hope then feels heavy to carry around if it is always accompanied by disappointment, or worse.

But I found hope in comedy, in always being able to find a way to laugh at something horrid or mundane. I found hope in the arms of my lover, in his compassion, forgiveness, and devotion. I found hope in my masculinity, in a body that seemed impossible to attain, much less inhabit. And now, I'm practicing having hope for the future. It is hard to have hope for something completely unknown. It is hard to have hope for something predicted to be particularly difficult for our planet as a whole. But it is also necessary.

My future—our future—is completely dependent on optimism; it is our duty to dare to dream of what it might be.

### **BRUCE: 3RD PROGRESSIVE DEVOTION - IMAGINATION - JUNE 2043**

The sound of dice rolling on the large wooden table I have had for more than 20 years is one thing that feels like home. A handful of my gaming friends from the past three decades have descended on my house as a surprise to spend the week with me celebrating my 63<sup>rd</sup> birthday. The house is full of laughter and geeky jokes and has been all week. Ren's cooking has made the house smell amazing. This whole week has been full of warmth and was a well-orchestrated surprise.

The eight friends who made the trip came with a mission. They are making me run the final battle of the megadungeon D&D 5<sup>th</sup> edition dungeon crawl that each of them played through some part of with me dungeon mastering during our years gaming together. We are five hours into the final battle of the campaign and all of us

are wondering if it will ever end. No one seems to be in a hurry. This activity that has always been about collaboration and connection for me has also always been an exercise in imagination. I always understood myself as not creative, but having this experience today with these friends who I spent so many hours rolling dice, telling stories, poorly imitating accents, and drawing hard to understand maps with, I feel lucky that for around 50 years of my life I have gotten to slay dragons with my friends.

I started playing cooperative roleplaying games when I was a kid because the real world was lonely. I made friends through gaming with other queers and nerds who also felt like outcasts in school. Throughout my life, gaming has always been a chance to build strong bonds with people who I have things in common with and given us a shared purpose. I look back over my life and don't regret a single hour I spent at a gaming table with friends. I am a better friend, writer, and person because of stretching my imagination with my friends. Maybe, after this week ends, we will start a weekly game online together.

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# SUSTAINING THE HYPHENS: FROM REPRODUCING TO RESTRUCTURING TEACHER EDUCATION

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We live in a capitalistic “knowledge” society that has influenced our education and fostered an environment of survival to succeed, rather than develop a sense of compassion, community, and empathy in our students (Kanu & Glor, 2006). This focus on “knowledge” has left gaps in creating spaces within education for students to be able to undergo healthy identity formations, especially when various identity markers are involved. Today, newcomers, first- and second-generation individuals, use hyphenations as way to represent multiple ethno-cultural identity markers. The hyphen between an identification, such as Tamil-Canadian, is its own symbolic space between places acting as a hybrid connection “among nation, culture and subject, [that] both binds and divides” (Ng-A-Fook et al., 2012, p. 121). In this paper, I refer to students who have dual- or multi-ethnocultural identities as hyphenated to acknowledge and embrace the space that affords negotiation and flexibility in their identity.

Current schooling has left hyphenated students in a vulnerable position because the knowledge pushed on them had been socially constructed to serve and reflect the most dominant group of society, which, in Canada, are the colonial settlers. Additionally, there are racial systemic barriers that continue to exist and permeate educational institutions within Canada, manifesting in a variety of forms. One prevailing issue is getting Black, Indigenous, and people of color (BIPOC) into educational leadership positions, as the current demographic within Ontario is not reflected within the overwhelming white teaching force. This is due to “gatekeeping mechanisms” within hiring practices that are maintained through racialized power structures, continually establishing whiteness as a social and cultural norm within the profession (Abawi, 2021, p. 80). The lack of representation “operate[s] to inform racist conceptions of whose bodies are suited to hold authoritative positions and whose bodies are marginalized from accessing such positions” (Abawi, 2021, p. 82). These conceptions trickle down to the students who also perceive the same outcomes for their marginalized identities.

With such an overrepresentation of whiteness within educational leadership positions, it is inevitable that the curriculum developed by these very same folks takes on a settler-colonial perspective. With the common practice of implementing such curriculum as planned, “Canadian schools are increasingly becoming sites of isolation and social injustices because they are poorly equipped to deal with the existing student diversity” (Raisinghani, 2016, p. 187). Such a curriculum “perpetuates whiteness as the norm” and is highly “ignorant of the lived experiences of students and their subjectivities,” essentially silencing them (Raisinghani, 2016, p. 187). Through curriculum, minority students become obliged to assimilate into Eurocentric ideologies to not hold their educational success at stake. For newcomer students, compromising such success is out of the question with education being their way towards a better socio-economic future for themselves and their families.

At such a young age, students are pressured to pick and choose between identities, often neglecting the one that was fostered at home, as it does not have a place in their education. At the end of their schooling, students may walk away with a diploma, but the most critical question remains unanswered to them ... “Who am I?”



### CURRERE AS THE AMATEUR INTELLECTUAL

A way to oppose the threat of dominating ideologies is to move towards becoming “amateur intellectuals” who will question mainstream politics and social trends (Kanu & Glor, 2006, p. 101). Pinar’s method of *currere* helps to transition educators into becoming amateur intellectuals by creating dialogue through our stories and examining possible changes we can make to address social inequities (Kanu & Glor, 2006). *Currere* is a form of academic life-writing that comprises revisiting the past, unfolding the present, and reimagining the future within education to contextualize the meaning of lived experiences in a temporal sense (Pinar, 1994). Although traditional academic work erases the author or scholar, our work, especially as educators, is shaped by who we are (Morris, 2019). *Currere* affords educators pedagogical opportunities to examine their own subjectivities around race, gender, class, sexuality, and ability and to then unlearn those social norms so that we can move towards social justice practices in our teaching. Therefore, *currere* is a powerful tool that can help with collective decolonization. By engaging in *currere*, we blend the boundaries of the past, present, and future, engaging with our inner experience to have a transformative new lens in the present (Capo Garcia, 2021). I engage in this vulnerable experience to acknowledge the oppression I have endured and privileges I have taken for granted, allowing me to make meaning of my journey through Canadian education and to enter a space of healing around my hyphenated identity.

### LITERATURE REVIEW

Imagine walking into a space and being told “who you are right now, is not going to work here.” Depending on which culture you engage with, your personality can be perceived as either a positive or negative asset to your socialization and integration into a community. This is especially cumbersome when the traits you developed were socially and culturally constructed as the appropriate norm at home but seen as inhibiting elsewhere. Jingyi Zeng (2022) speaks on this in her *currere* essay where she explained, “As a Chinese woman in China, I am expected to be docile and subservient” (p. 93), making the pursuit of higher education seem like a selfish endeavour. Similarly, Mahzad Mahjani (2018) expressed that her authoritative upbringing in Iran left her with no choice but to be “introverted,” “shy,” “obedient,” and “submissive” and recognized the role it played in her education as she stated, “I was never brave enough to endure danger and criticism” (p. 54). As can be seen, the priority varies drastically based on the type of identity the individual is expected to uphold within a particular space. Understanding what is “right” and “wrong” can be confusing while navigating these spaces, but once children recognize the difference is in the space itself, they learn to adapt quickly by switching their behaviour and attitudes upon entry.

But carrying multiple identities can feel heavy, like physically carrying a closet full of different versions of yourself that you switch through when needed. This is why we are left to choose which version to wear more permanently, and that will be the one most accepted within the society we reside in; thus, assimilation presents itself. This assimilation manifests itself in a variety of forms as well. Rajwan Alshareefy (2017) discussed this difficulty in terms of language and communication, where he tried to hold back his Arabic dialect in his new American environment. He felt he had to “acquire (without negotiation) the academic conventions of [his] institution” (p. 21) to survive. Andrew Campbell (in Eizadirad & Campbell, 2021), an immigrant to Canada from Jamaica, also recalled having to hide his accent to feel “safe” and “accepted” for the

moment (p. 248). In other cases, one's physical appearance may also be called into question as well. Aaron Sardinha (2022) described flattening his curls to adhere to the professional look of the workplace, erasing a part of his Blackness. Sometimes, assimilation can be losing traditions as well, as Khan (2018) shared her memories of watching her first-generation Canadian children refuse the traditional Pakistani food they once loved after they began attending Canadian schools.

Sadly, these Eurocentric norms not only find their way into altering appearances, attitudes, and speeches, but within the educational content taught in schools. Welly Minyangadou Ngokobi (2022), who transitioned from attending various schools in the French education system across the African continent to the Canadian education system, felt an immense lack of representation in the content taught, specifically in English classes where she stated, "It made it seem to me like Shakespeare and other white authors wrote 'real' literature" (p. 62). Eboni Malloy (2022), who identifies as Black and attended school in North Carolina, shared a similar concern. She described a time in her social studies class when she was constantly in conflict with her teacher who was sharing misinformation regarding Black history, experience, and contributions (Malloy, 2022). She felt burdened with the pressure of ensuring her identity was accurately represented, something the teacher should already be taking into account.

These personal narratives share an evident pattern in the experiences of ethno-culturally hyphenated individuals within North America. Cultural markers such as mannerisms, physical features, and traditional staples were rejected, and the histories of vulnerable groups were erased. Everyone was forced to engage in a flight or fight response to their experience, choosing to either fight the system itself or fly away from the marginalized identity that was being targeted. This shows that it is no longer a debate of whether these acts of violence on identity are occurring, but how we can mitigate them. To do so, I will unpack my own experiences as a student and connect it to my current position as a future educator to assist in identifying the gaps in our teaching practices.

## CONTEXT

In this paper, I examine my own experience, as a first-generation Tamil-Canadian within an Ontario K-12 education system and within a professionally accredited teacher education program. With parents who immigrated from Sri Lanka during the civil war period, the rich history and traditions within Tamil culture were not something my parents ever wished to compromise coming to Canada. This is not uncommon of Tamil people as this perseverance is what afforded us to have one of the oldest languages to exist on earth. The need to sustain was passed down generation to generation and, therefore, strongly informed the decisions my parent made while raising me in a predominately white town within eastern Ontario.

## REVISITING THE PAST

### *NARRATIVE SNAPSHOT #1: WIPING AWAY THE TAMIL*

In my early elementary school days, my Amma (mom) would wake me up early to get ready for school. There was a lot to do in the morning, including taking part in my daily Hindu prayer, which set the tone for the day. The prayer consisted of lighting a small oil lamp, performing hymns and mantras, silently making my wishes and hopes for the day, and finishing it off by swiping *vibhudhi* (ash made of burnt dried wood) on

the forehead, and placing sandalwood paste and *kungumam* (red turmeric powder) at the points between the inner brows. This act was traditional within the Hindu praying ritual.

I remember the first time I walked up to my peers at school with the *vibhudhi*, sandalwood paste, and *kungumam* on my forehead. I honestly had not given it a thought as I was used to my parents having it on at home. But a classmate pointed it out to me and said, “Hey, you got some dirt on your forehead.” I was instantly embarrassed and wiped it right off. Being raised under the Tamil ideology that a “good girl” was obedient and never talked back to anyone; I made no attempt to explain myself. Additionally, my classmate’s approach did not help the situation. I had developed highly introverted tendencies due to the nature of my upbringing. Perhaps, if my classmate had been curious, I would have felt more comfortable explaining the *vibhudhi* to them; but having it pointed out as something “wrong” shut me off.

That day when I went home, my mom asked what happened to the *vibhudhi* on my forehead. I told her I took it off because someone in my class thought it was dirt. My mom got upset, not with the classmate, but with me. I was scolded for being so easily influenced by my white peers. Her approach was quite aggressive considering I did not have any understanding of how social conditioning worked, but I can now understand that it was a response to the fear of seeing her child abandon her Tamil identity with such ease over a trivial matter. Unfortunately, it still contributed to my early confusion of trying to navigate between how much “Tamil” I could bring into my classroom, and how much “Canadian” I could bring home.

From that point forward, I would go through my normal morning routine including my Hindu prayers, but on the walk to school, I would wipe off the Hindu markings on my forehead. When I got home, I would lie to my mom that it got wiped away during gym class, while wearing my hat, or when playing during recess. I became good at lying—lying to my mom, lying to my classmates, but ultimately, lying to myself about who I was.

### ***NARRATIVE SNAPSHOT #2: MAKING ENEMIES WITH MY MELANIN***

By the time I hit high school, I was so good at hiding being Tamil that my friends would joke that, if they could not see me, they would assume I was white. I changed myself to be as western and Canadian as possible. This included replacing my A. R. Rahman or S. P. Balasubrahmanyam music tracks in my iPod with One Direction or Katy Perry, bringing chicken nuggets to school over chicken biryani, and begging my parents to buy me American clothing brands like Hollister, Aeropostale, and Abercrombie & Fitch. These changes seemed to worked because I was making more friends and easily integrating into our settler Canadian school system and its cultural expectations. The teachers would gush over how easy it was to teach me, and my friends felt like I understood them so well. But it was not enough for me, or should I say, for society. The colour of my skin still made me stand out.

Colourism is deeply rooted within South Asians, especially with the history of the caste system. We are constantly told that fair skin equates to beauty, and you see it in every form of influential media. Even my own family would point out and ridicule me for being dark skinned. My Tamil aunts encouraged me to use products like “fair and lovely,” which contained harmful ingredients like bleach. I became obsessed with using these bleaching products, checking in every night with the skin lightening scale provided in the packaging to see if I was turning any fairer.

A compounding factor to my developed insecurity about the melanin of my skin also came from the people I was constantly surrounded by in high school. All my teachers, guidance counsellor, principal, as well as the administrative staff, were white. Every lesson taught where “so and so” made a great discovery was about someone who was white. Our school was unconsciously and consciously reproducing an institutional culture and respective narratives that only white people could be successful in the academic world. Being an academically driven student, I began to look at my skin as the enemy, acting as a barrier to my success, not realizing that it was a settler colonial system that valued cultures of whiteness that was working against me.

### *NARRATIVE SNAPSHOT #3: SEEING CLEARLY WITH A NEW LENS*

Leaving my small eastern Ontario hometown for the big city of Montreal during my undergraduate studies was an eye-opening experience. I was right in the mix of one of the most diverse populations I had been a part of so far. I was quick to connect with international students who did not quite fit into the Canadian settler colonial systems and its reproduction of a culture of whiteness. Watching how proudly my peers displayed what I once perceived as their “otherness” made me want to embrace the non-Canadian aspects of my identity. However, when finally finding the courage to reach out to the Tamil community at my university, I was painfully rejected for “not being Tamil enough” and being “whitewashed” in their eyes. At that point, the effects of my deep submersion within settler colonial culture had done its damage, leaving me in an isolating “in between” land, where those who do not fully belong in either/or are left to defend for themselves.

And so, when I entered the University of Ottawa’s Teacher Education Program, I came with a mentality that it was me, myself, and I. I had absolutely no intention of even trying to find a community, feeling I would rather be alone than put on a mask again or be vulnerable enough to get rejected. However, this very same feeling now fuels my commitment as a future public-school teacher. Although I felt it was too late for me, I wanted to be able to intervene in time for my students. This influenced my decision to select the Urban Communities Cohort as my specialized focus due to it providing the opportunity to work in high diversity classrooms within urban priority schools for my practicums.

A tool that was introduced to us within this cohort was an equity lens, as a metaphorical means for analyzing the complex intersectionality of class, race, gender, sexuality, and ability that composes one’s positionality in relation to others (Sensoy & DiAngelo, 2017). We were often asked to reflect on our lived experiences through this lens to synthesize our professional teaching philosophy. This introspective opportunity allowed me to see how spaces are socially constructed to benefit dominant groups and how at times I had fallen victim to it, but at other times, I had greatly benefitted from it too. Recognizing those systemic barriers that are in place and that permeate educational institutions finally provided me with meaning and understanding around my experiences.

### **UNFOLDING THE PRESENT**

Currently, in the University of Ottawa’s Teacher Education program, I find myself having to get involved in extracurricular activities beyond the course work and practicum expectations placed on teacher candidates in order to fulfill all my needs as a person of color entering the field of education. One such activity is leading the Teacher Candidates of Colour Collective as a co-organizer. As part of this collective, I help

to organize workshops and seminars such as “Decolonizing the Teacher” or “Writing within the margins.” The purpose is to offer alternative professional learning (PL) that specifically targets the needs of BIPOC and other visible minority teacher candidates, which typically is not provided by the Faculty of Education itself. A majority of the professional learning opportunities provided by faculty focuses on teaching strategies, interview tips, applying to Ontario College of Teachers (OCT), getting to know your union, and managing conflicts, all general information teacher candidates require. But in terms of PL opportunities that reflect Equity, Diversity, and Inclusion (EDI), the faculty shares very few workshops, with the same repeated “Anti-racism,” “Black History Month,” and “Indigenous Perspectives” PLs based entirely on pedagogy rather than assisting BIPOC teacher candidates in navigating teaching. Such PLs feel tokenistic in nature, as if to check that a quota was met rather than create meaningful and new opportunities for learning targeted to sustain the identity of BIPOC teacher candidates.

In addition to this, the collective also provides a physical space where BIPOC teacher candidates can engage in dialogue and have open conversations about their experiences in the program or within practicum. This space is crucial as the program is made up of a majority of white teacher candidates and taught mostly by white professors, causing those BIPOC teacher candidates to get lost in the mix and losing their voices in the process. Of the eighteen courses I have taken in this program, four have been led by BIPOC professors. Unsurprisingly, these four courses also incorporated alternative perspectives that my other courses did not typically offer. For example, the course taught by white professors always referred to utilizing the curriculum expectations in our lessons, where the courses taught by BIPOC professors encouraged us to question the narratives in those curriculum expectations. Like the program, my practicum schools had very little diversity in their teaching staff as well. Both of my Associate Teachers (AT) were white. They did a great job of mentoring me in lesson planning, assessments, and classroom management. However, they offered little insight in how I could make the most of my BIPOC identity for my students. I was fortunate enough to meet a senior biology teacher who identified as South Asian. They took me under their wing and afforded me opportunities to observe their teaching while offering their words of wisdom. I learned quite a bit from them from small tips such as not shying away from using my full Tamil name with my students to their teaching philosophy, which was informed by traditional South Asian ideologies adapted to meet the needs of their students. This encounter demonstrated how crucial representation in the field of education is for visible minority students to be able to see themselves in the same space.

### REIMAGINING THE FUTURE

When I envision myself in future educational spaces, I do not see myself at the front of the classroom, changing the slides to a PowerPoint, in need of quenching my thirst because I’ve talked myself dry. I see myself circulating my classroom, checking in with my students who excitedly explain their self-inquiry projects, amazed with their findings and constantly learning something new alongside them. I do not see myself spending my prep or afterschool time reviewing the same lessons I used a couple years in a row, memorizing scripts, and cramming last-minute facts in my head. Instead, I see myself finding an online simulation I could share with my students to supplement their learning, gathering materials for an experimental idea a student proposed earlier in the week, or bookmarking a community program I recall a student showing interest in.

I see myself in my lunch hours and break times, swarmed by students, not to ask help on question 2b of the homework, but to tell me about their lives, finding comfort in my marginalized identity and asking advice about how to navigate the world as a person of color. I will remind those students to find power in their lived experiences, to use them as assets to their learning, and to bring voice to them inside and out of the school. And because I recognize that I cannot represent all marginalized and vulnerable students, I bring community to them. I invite guests relevant to the topic and relevant to the students, mindful of the impact representation can bring.

I will be listening, hearing, and noting down all the experiences, ideas, and shared knowledge my students put forth in class. I walk into each day excited to see where my class will take me because no one class will be the same. Every space I curate will be unique because no one space has the exact same students. Within these spaces, my students will be agents of their own learning, not passive knowledge consumers, and will know my role is to facilitate their learning, not dictate it. I will offer them global perspectives rather than settling on one dominating view that will silence their voices. Through these efforts, the environment I create will validate and sustain their identities and encourage them to do the same for others.

### RETURNING TO NOW

To be able to manifest such a future requires that I begin healing the trauma that has been placed on my hyphenation during the years of tug-of-war battles between my identities. I ask then: How can Teacher Education programs cultivate a healthy space for teacher candidates to heal and embrace those hyphenations, so that they can support their students down the road? In the University of Ottawa's *Final Report: Anti-Racism and Inclusive Excellence* (Ebanda de B'beri, 2022), many recommendations are put forth that Teacher Education programs can take on to help establish those ideal environments for hyphenated students. One such recommendation is to accelerate the hiring of BIPOC professors by applying accountability policies to reduce the gap between white and BIPOC professors, to not solely rely on additional positions, to fast track BIPOC recruitments, and to retain current BIPOC professors through hiring packages that include mentorship and support (Ebanda de B'beri, 2022). Having representation in the educational leadership positions within Teacher Education programs can serve as a support for hyphenated teacher candidates who are looking for a mentor to help guide them through the field. I know that the few BIPOC professors I have had during the program have been my first point of contact whenever I needed advice simply because my perspective felt validated through them.

Additionally, another priority highlighted in the report is to "create a safe space, physical and virtual, for BIPOC students, staff, and professors" (Ebanda de B'beri, 2022, p.17), with the purpose extending beyond networking, mentoring, and sponsoring, but to establish a climate of trust so BIPOC communities can express themselves and be vulnerable to growth (Ebanda de B'beri, 2022). Currently, student-run groups such as the Teacher Candidates of Colour Collective do offer such benefits; however, the responsibility to plan and implement programming to fulfill such needs should not be on the candidates alone, but in collaboration with the faculty where there is a forum for marginalized voices to speak, share their concerns, offer ideas, and for faculty to actively listen and support their needs whether that be through offering resources, connections, or funding. Thus, it is crucial to pair teacher candidate agency with faculty support.

Teacher Education programs should act as macro scale versions of the classrooms in which we are set to teach as educators ourselves. But due to its post-secondary nature, programs tend to be structured more like training camps, at times neglecting to take into consideration that the teacher candidates themselves still need their identities validated and sustained. These programs model how we teach our students, and so the pedagogical tools and instructional strategies they encourage teacher candidates to implement, such as UDL, culturally sustaining pedagogy, and reflexive practices, should just as equally be implemented by the program in addition to the recommendations listed above. Providing teacher candidates with the opportunity to deconstruct their lived experiences to acknowledge their biases and assumptions, to seek out mentorship through professors who identify with them, offer meaningful content that resonates with them, and to form a community to sustain such an identity will only help to pass on the same opportunities for their future students to undergo healthy identity formation as well.

### CONCLUSION

If we are not fostering learning environments that embrace the identities of students, what does that say? What are we telling students when we reject a part of their identity, or worse, do not even acknowledge it as worthy enough to include in their education? What effect will this have on them physically, psychologically, and spiritually? Are these effects short-term or long term? Will they be contained within the individual's lifetime or passed down generationally? The harm that has been inflicted on us during our identity formation is ongoing, so some of these questions are yet to be answered completely but must continue to be investigated. In the meantime, I think its important to re-evaluate what the purpose of public education is in Canada. We boast in pride about our diverse population but demonstrate the opposite in our institutions and curriculum. As of now, we are indoctrinating a nation of youthful minds to be citizens that serve the colonizers. This is not to put the sole blame on educators, as the teaching programs that prepare these educators reproduce the same dominant ideologies as well. Thus, teacher education programs must be restructured in a way that encourages facilitating educators in unpacking the biases and assumptions that inform their worldviews and create an understanding of how positionality plays a role in the classroom, all while simultaneously sustaining their identities. Only then can we look next towards the idealized education that develops students as global agents of change, advocating for each others' rights, and working collaboratively towards a sustainable future. By having the opportunity to decolonize themselves through a supportive system, educators will inevitably provide the space for students to undergo healthy identity formations that will sustain those hyphens and reap the benefits of plurality that will pave a way towards a community of change. This is how we prepare our hyphenated students to answer that question of "who am I."

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# FINDING THE ENERGY TO HELP HEAL SOCIETIES AND ECOSYSTEMS

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## THREADS OF MY PAST

### *THREAD ONE: EARLY INFLUENCES*

I grew up in Ypsilanti, Michigan, where a paper company on the banks of the Huron River used to dump extra dye into the river, thus changing the river's downstream depending on whatever color paper they were making. I remember fishing in the Huron River but never catching anything. Then, in the mid-1970s, Ford Lake in Ypsilanti—which was downstream of that paper plant and a Ford factory—was declared to be so polluted that you weren't even supposed to let its water contact your skin. Once upon a time, Ford Lake had been a pristine body of water that featured plentiful fish and enjoyable recreational activities. Then, industrialized civilization arrived, including my family, who drove a Ford station wagon.

In 1976, when I was 15, our family spent six weeks traveling across country, camping in a pop-up tent trailer. It's funny to see what things stick with us from our experiences, but from packing up and cleaning up many campsites, I still remember my late mother reminding we kids that “we should always leave a place cleaner than we found it.”

By the early 1990s, my mother had become famous for reusing napkins over and over again. She didn't say much about it, but it became clear that she was worried about the planet and wasting precious natural resources.

### *THREAD TWO: MY CHANGING TRAJECTORY AS A TEACHER EDUCATOR*

Mom had been a long-time primary-grade teacher and by the mid-1990s, I was an early childhood teacher educator. So, I asked my mother a question I often used in classes and workshops: “What is the #1 most important outcome you would like children to get out of their education?” I was partial to answers such as “creativity, love of learning” or “critical thinking,” and to be honest, I was dismayed when my mother answered on multiple occasions, and years apart, “ability to delay gratification.” I never told her this, but that seemed to me to be a boring goal to me, and I wondered why she picked it.

By the early 2010s, I was a senior teacher educator and researcher, and my research had shifted from child-centered learning and healthier alternatives to test-based accountability to what we must do to heal Earth's ecosystems and societies (e.g., Wheatley, 2022). I had immersed myself deeply in man-made global warming, chemical and plastic pollution, resource depletion, melting glaciers, loss of biodiversity, ecosystem deterioration, toxic inequality, exploitation, and sustainable ecological footprints. Unfortunately, what I learned is that far beyond a one-dimensional climate crisis, humans are pushing the whole web of life toward collapse from multiple directions simultaneously.

On the societal side of the coin, the colonialist, capitalist, and imperialist world order always created improvements in standards of living for a small minority of people but did so by exploiting and legally looting from the vast majority of people on Earth

(Hickel, 2018). Even today, the global economy has been designed/rigged to allow the rich and powerful nations of the global north to siphon trillions of dollars in wealth from the less powerful nations of the global south (Hickel, 2018). As a result, and despite the vast wealth the global economy has created, if we use the U.S. per capita poverty standards for an individual or family of six, somewhere between 5.5 and 6.5 billion of the world's 8.1 billion people are living in poverty (World Bank, 2024). Meanwhile, the degree of democracy in the world has declined for 17 straight years (Freedom House, 2023); social cohesion and trust in institutions have declined in many wealthy nations, and political extremism, authoritarianism, and attacks on science and truth are all on the rise (Applebaum, 2020; Levitsky & Ziblatt, 2018).

On the ecological side of the coin, humans have raised global CO2 levels by 50% since 1775 ([www.co2levels.org](http://www.co2levels.org), 2023), and we are warming the planet 10-20 times faster than it usually warms when coming out of an ice age (Masson-Delmotte et al., 2021). This has made climate disasters more frequent, severe, and expensive (Büntgen et al., 2021; Jones et al., 2020). Climate scientists usually forget to point this out, but it is the rapid speed of this warming that is especially lethal to species and ecosystems. Meanwhile, our emissions have made the oceans 30% more acidic, lowered oxygen levels, and caused more frequent marine heat waves and mass bleaching events of coral reefs. Furthermore, we have blanketed the planet with toxic chemicals and plastics (Bergman et al. 2013; Robin, 2014), have degraded ecosystems all over the Earth, and wildlife populations are plummeting (BirdLife International, 2018; Brondizio, 2019). Regarding the last point, one study found that the average decline in population size for 32,000 species studied was a shocking 69% since 1970 (WWF, 2022). However, what many people in an urbanized society replete with science fiction often forget is that our economies, societies, and very lives are totally dependent on the biodiversity and health of Earth's ecosystems. This is worrying when you learn that researchers estimate the humans have already destroyed half the biomass that existed on the planet before the rise of human civilization (Schramski et al., 2015). As a result of the profound and continuing depleting of Earth's biomass, disruption of the climate, and degradation of ecosystems, scientists have been warning the public for decades that we are steadily eroding the Earth's ability to support life, including human life (Ripple et al., 2017).

What people in modern civilization are doing reflects some of the major causes of the collapse of great civilizations in the past (Diamond, 2011), but this time around, the ecological collapse would be global. Meanwhile, despite humanity's faith in the power of technology to fix all our problems, the creation of new and more powerful technologies has mostly increased the number of existential threats we must somehow defuse (Beckstead et al., 2014).

Just as my mother didn't loudly voice her deepest worries about the future wellbeing of the planet, and although I have spent more than a decade researching and drafting a book about what we must do to heal ecosystems and societies, I usually kept the terrifying things I was learning to myself. However, a few years ago, I found the courage to ask my fellow teacher educators if maybe we should design our new P-5 teacher education program to better prepare teachers to prepare their pupils to help heal society and ecosystems. It turned out most of them were also secretly terrified about the unraveling health of ecosystems and societies, so we designed our new P-5 teacher education program with an emphasis on healing ecosystems and society.

By 2020, I was deeply weaving ecological literacy and issues of social justice into my courses. This involved many new questions for me as a teacher educator. How

should I teach students about the world's four economies? About the reasons why just two degrees Fahrenheit of global warming is so disruptive to ecosystems and species? About why it is impossible to have healthy societies if you have high levels of economic inequality? What to do about the fact that Ohio's social studies standards were built around the industrialized capitalist economy that is one main cause of this ecological and societal unraveling? How to teach P-5 teachers to teach science in a world where ecosystems are unraveling, but the state content standards are almost entirely silent on the major scientific crises we face? In response, my students and I often crafted our own content standards and identified which official content standards are too trivial to merit classroom time.

However, I'm weary. Despite my commitment to figuring out these questions, 29 years of teaching at the same university year-round and more than a decade of intensively studying the biggest crises facing humanity have taken their toll on me. After obsessively studying why the testing and accountability movement was misguided for more than a decade, I obsessively studied global warming and its multitudinous effects, plus biodiversity loss, pollution, the role of inequality and exploitation in creating social and political dysfunctions, and the metamorphosis of society that will be needed to resolve these crises. So, I got increasingly burned out. Making matters worse, these are issues that most people don't really want to talk about, and I'm a prototypical loner, so despite thousands of short conversations about these issues with students or people in distant lands, I hadn't really found my "tribe" of people who were working on these issues and willing to talk about them regularly. Thus, doing this work has not just been hard and emotionally draining, it has been lonely. Thus, 2023 was a year of recovery for me, with a sabbatical in the spring semester, lighter summer teaching than usual, and a lower-energy fall semester.

### *THREAD #3: REFLECTING ON THE CHALLENGES & THE CHALLENGES OF REFLECTING*

Finding room for all this new content is daunting enough, but the emotional challenge of teaching teachers about multiple existential threats that humanity must solve this century—or else—makes me feel like a dentist who must keep extracting people's teeth after running low on pain medicine. Fortunately, many college-age students are already badly scared about the world we are handing them, so many find it helpful to finally learn about the crises we face and the solutions we need. They are also interested in learning about details of the metacrisis we face, including the concept of ecological footprints and the changes they would need to make to move from having a "five-planet footprint" to getting closer to a sustainable "one-planet footprint."

However, on an emotional level, I know that what they are learning from me is a mixed blessing. On the one hand, they are happy to finally understand how CO<sub>2</sub> causes global warming, why more economic growth causes more ecological destruction, and what profound changes we must make to prevent worsening ecological and societal unraveling. On the other hand, many of them had previously believed that we just needed to build more renewable energy, switch to electric cars, recycle more, and everything would be fine. For most of them, it comes as an unpleasant surprise to learn that preventing worsening ecological and societal breakdown will require shrinking the global economy by about 50% and shrinking our own consumption and wastes by roughly 80%. Achieving such a massive reduction in humanity's collective ecological footprint will require them and billions of other people to forego things they may have long dreamed of, including large families, large homes, and extensive travel.

Thus, for every class in every semester, I find myself wondering how much to teach about the crises we face and how far to push the edge of the envelope in terms of what I say. The scientific reality is that the growing industrialized civilization we created flies in the face of Earth's limits, the long-term needs of life, and the laws of nature. Thus, even if we solved the climate crisis tomorrow, we would still be heading towards worsening ecological states and unraveling until we get out of collective ecological overshoot (Wackernagel & Beyers, 2019).

However, who wants to be the person to tell people how serious these crises really are, to declare that this centuries-long consumerist party is coming to end, and that the faster we wind it down, the better it will be for billions of people and millions of species?

In the fall semester of 2023, I found myself venturing farther than ever before in teaching the prospective teachers about the crises we face and how education must change to prepare graduates who have what it takes to help heal ecosystems and societies. The most gratifying part of the semester was a quiz that students in my two social studies methods courses took on key facts about the crises we face and how to solve them. I was thrilled by how accurate and detailed their responses were, and I felt, "Hey, they're really getting it ... I'm making a difference here."

However, always lurking in the back of my mind is the realization that weaving this new content in my courses has meant a decline in the quality of my teaching. I've been teaching PK-3 teachers for 37 years, and 15 years ago, I had really worked out how to teach about developmentally appropriate PK-3 teaching in responsive, constructivist, and developmentally appropriate ways. Especially in the course I taught the most, I really had things humming along beautifully. However, while juggling a full-time job, a family, and learning about the crises we face and how to solve them, I haven't had the time to figure out how to incorporate all this new, complex, and often abstract information into my teaching in more constructivist and responsive ways.

Thus, when the cyclical call for papers from the *Currere Exchange Journal* came around this year, I found myself wondering, "Would working through the *currere* process (Pinar, 1975) help me move my teaching forward? Being a reflective practitioner has been a constant theme of my professional life from the early 1990s through to the mantra of our teacher education program. However, to be honest, I'm usually too overwhelmed by learning all this content, writing a book about it, and teaching to reflect on my teaching as a should. So, I thought, "let's give the *currere* process a try."

### LOOKING FORWARD

"We are still educating the young as if there weren't any planetary emergency."

- *Oberlin Professor Emeritus, David Orr*

I intentionally wrote this manuscript while reflecting on the Fall 2023 semester and planning for the Spring 2024 semester. Three challenges are coming into view through the windshield of a Christmas Break I spent mostly in COVID quarantine in our family basement.

My first challenge for the future is personal. As someone who has studied for years the smaller economies and simpler lifestyles that we must adopt to prevent worsening ecological and societal breakdown, am I ready to tell my family that I'm not comfortable getting on a plane again and helping create that extra optional carbon footprint? I haven't flown in years and have taken many steps to shrink my footprint (vegan diet, riding the bus to work), but I haven't been asked about getting on an airplane again. Am I really

up to saying, “No, although I would love to visit Hawaii and Europe, I can’t in good conscience get on a plane again”? I can feel the question coming from others soon, and I hope I am up to the challenge.

My second challenge is social and political. I have pushed harder than any colleague I know of in our college to make these crises and their solutions more central to teacher preparation and the university curriculum in general. I pushed to require our students to take a course on environmental science and courses that might expose them to more equitable and caring ways of organizing society. I pushed repeatedly to get issues of sustainability into our college’s mission and vision statements. But am I ready to push the issue again and further in department and committee meetings—and in proposals for our new P-8 teacher education program? The Ohio state legislature, to make it easier for administrators to staff schools, first replaced our P-3 teaching license with a P-5 teaching license and are on the brink of replacing P-5 teacher preparation with P-8 teacher preparation. For the fifth time in my 30-year career, I will be helping to revise our teacher education program from bow to stern, and this time we will need to collaborate with middle school teacher educators. At age 63, am I ready to keep fighting this critical fight as we craft yet another teacher preparation program and keep pushing for us to be mindful of the ecological and societal crises that will dominate the 21st century? How can I stay true to that mission even as we deal with the daunting challenge of declining enrollments? Again, I hope I am up to the challenge, but as someone who prefers to work alone, I know I need to reach out to other colleagues for support in this effort.

My third challenge merges the personal, social, political, and professional sides of my life. That is, as I look through the windshield of winter break and gaze down the road at the coming semester, can I do an even more effective job teaching my students about the urgent crises we face and how P-5 or P-8 education must be changed to help society deal with those crises?

### ANALYZING THE NOW

The transition from 2023 to 2024 was the strangest in my 30 years as a university professor. I caught COVID right after Christmas, and as it spread to two other family members, I found myself living in our basement for three weeks. With a comfortable bed, couch, table to do my work and flatscreen TV, it was hardly roughing it, but I wondered if being thrown out of my routine might help trigger a reinvigorating reset for me.

Meanwhile, over break, the lemon of declining student enrollments led to the cancellation of a class I have taught for years, but that cancellation also created the lemonade of the chance for me to teach our P-5 science teaching methods course. I had never taught this course before, but I love science, and this was a wonderful opportunity to wrestle with how P-5 science education should be done differently in light of the urgent ecological crises we face. So, I stayed up until 3:00 am one morning reading Ohio’s P-12 science standards and model curricula, and I was disappointed to find that, other than a model environmental science class for high school, the state science standards were largely silent on the ecological crises that humans will be passing down to the children my students will teach.

At age 63, I would be happy to teach another five or ten years, but I know the first challenge for me in *this* now is how to muster the energy, focus, and passion needed to incorporate complex ideas about the crises humanity faces into my teaching in engaging and transformative ways. I spent decades building a teaching practice I felt was very

effective but that didn't incorporate these ideas, so can I muster the juice once again to do that with a more complicated and daunting set of student outcomes? The second challenge is parallel: Can I muster the energy, focus, passion, and courage to push for making the P-8 teacher education program we are now planning reflect the crises humanity will face this century plus how to resolve them?

### SYNTHESIS

What do I see and feel as I revisit this this now considering the previous three steps?

My learning as a researcher led me to realize that we don't just face a climate crisis; we face a multi-faceted global metacrisis, and we must fundamentally transform our societies and lifestyles to prevent worsening ecological and societal breakdown. For example, to make our civilization sustainable, we don't just need more renewable energy, we must shrink our economies by about 50% plus leave the Earth cleaner every year than it was at the beginning of the year (e.g., see Hickel, 2020; Merkel, 2003; Wackernagel & Byers, 2019), just as my late mother would have suggested. To make our civilization healthy and just, we must distribute wealth much more equitably so we can meet the needs of over eight billion people and five million species (Wilkinson & Pickett, 2010). In another case of my mother being right, delaying gratification will be critical for humanity to live simpler lives and bring our consumption and wastes within the limits of Earth's carrying capacity.

My background as an educational psychologist tells me that some of the ideas that I'm trying to teach future teachers are incredibly hard to accept and learn. The human mind has an estimated 188 cognitive biases (e.g., see Banaji & Greenwald, 2013), and some of these protect us from taking responsibility for doing harmful things like destabilizing the climate, wrecking ecosystems, or exploiting others, while other biases make us falsely believe that life will always continue the way it always has during our short human lives.

My reflections as a teacher educator tell me that learning how to teach these ideas in responsive, engaging, and impactful ways will take me a few years. I've begun crafting and testing activities for teaching these ideas, but it's going to be a long road, and I would benefit from finding other teacher educators who understand the true scale of the global metacrisis and who are teaching about it. More uncertain is how much I can get my colleagues to incorporate content about the crises we face and how to solve them into P-8 teacher education. I have many wonderful colleagues, but reminiscent of the movie *Don't Look Up* (McKay, 2021), almost all seem to prefer to continue teaching future teachers "as if there weren't any planetary emergency." This surreal reality reminds me of the climate psychologist Per Espen Stoknes's (2015) remark that humans lead a kind of double life in that we can know something yet act as if we don't know it. But for me too, I sometimes shrink from thinking about these crises or speaking up about them—it's difficult and lonely to be the one person who is always bringing up the elephants in the room.

Finally, my reflections on me, myself, and I tell me that what I must do to have another phoenix moment after being so burned out is to do all the boring basics, starting with self-care. When I consistently get enough sleep on a consistent schedule, get ample exercise, and eat the healthiest diet possible, I am a different, more energetic, and more focused person. Also, when I take regular breaks to do something fun for me, that always helps me recharge so I can better get up the next morning and face the enormity of these crises head on. Next, as someone who has been researching a

wide range of ecological and societal topics and thus often has 70-80 browser windows open, I know that overstimulation and lack of organization is an obstacle to me being the best researcher, teacher, and person I can be. Thus, on the one hand, I must take time every day to get the thousands of things I have collected better organized. On the other hand, to minimize distractions and better enable myself to do deep work, I must practice digital minimalism (Newport, 2019) by limiting the number of research reports and tidbits I collect and the times of day I even look at those things. As someone with a strong tendency to work alone, I also know I need others' help in this now and in all the nows to come. One type of help I need is coaching and ideas to skillfully teach and write about complex and scary topics in an engaging and digestible way. However, on an emotional level, I know I must find like-minded people who want to regularly talk about these crises, their feelings about them, and efforts to resolve them. Having wrestled with the enormity of these crises and the daunting scale of the solutions almost daily for more than a decade, it's just too emotionally difficult to wrestle with and teach about these issues without a community of other people in my situation to debrief, "de-grief," and decompress with.

This hadn't dawned on me before working through the *currere* process, but one key thread connecting most of the healthy changes I must make is delaying gratification. Getting more sleep and on a better schedule requires letting go of watching one more happy ending from a Hallmark movie late at night. Eating healthier requires foregoing the instant gratification of pushing processed foods in my mouth and instead taking time to chop vegetables and cook real meals. Getting organized requires foregoing the instant gratification of reading, writing, or watching something interesting right now plus spending time daily to put a mountain of research and teaching resources in better order. Digital minimalism requires not getting pulled in by fascinating or scary headlines or research online. Even seeking help, resources, or emotional support from others requires foregoing the immediate gratification of individual activities I could otherwise do—and that would be more comfortable for me to do as a self-identified loner.

Accompanying the need for more delaying of gratification is the need for courage to keep sticking my neck out and talking about the elephants in the room. However, I'm sure more social and professional support from people in a similar position will help, and for me, delaying gratification is a key to unlocking that door.

It is odd but satisfying to be 63 years old, to have spent four decades in education, and yet to discover that my late mother's #1 goal for children to develop is also the thing that will help me most at this moment in my life. OK mom, *you were right!*

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# LIVING THROUGH A DYING DREAM

By Brent E. Johnson

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The stench of ideas. The carcasses of progressive thought rotting in the hallways where once lively discourse resided.

Where heterogeneity was beginning to take root, But the antebellum past and the Neo-Jim Crow Institutional present conspired.

Smoothly, yet not tactically. You do not have to be. Within a right-to-work state, it is simply holding power, selectively enforcing procedures, and surrounding oneself(ves) with nurturers of narcissism.

Syphoning humanity. Incrementally. Ensuring licensure while eliminating agency.

If at all, advocating for the Melanated to become parapros, as to avoid the “traditional” hegemony creating a wedge between the profession and culture.

Dismissing issues of material struggle as academic deficit while further galvanizing the ideas of the ahistorical and apolitical.

Groupthink.

And endless winter.

Living through a dying dream.

(Douglass)