

# DEAR MATH LETTER TO SELF: STUDENT *CURRERE*

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*The art of teaching is the art of assisting discovery.*

—Mark Van Doren

The story you are about to read is true. The names have not been changed because those names give voice to the voiceless and empowerment to those once thought of as powerless. Those names have become allies to the work of changing the structure of school as it has been and is currently for many students. Their words have not been changed or edited for grammar to reflect their voices and personal experiences.

It was the summer of 2009 when I was introduced to *currere* by Dr. Sheri Leafgren while taking EDL 780, Curriculum Planning at Miami University while pursuing a PhD. Little did I know at the time that this introduction to *currere* would be what I needed to finally come to terms with my negative perception of being a high school drop-out. In fact, as I reflect on this transformative experience, I think of it as taking a bandage off a wound that had finally healed. The scar and the memory of the injury are still there, but it is healed and serves as a reminder of what makes me unique in my thinking about life and the journey of education having endless possibilities.

Curriculum theory's Reconceptualist Movement, exemplified by William Pinar's (1975) notion of *currere*, shifted the field's emphasis from making curriculum to understanding it. *Currere* as a process is a reflective opportunity to go back to the beginning and project into the future, while intentionally examining the in-between spaces of our educational experiences with the ultimate goal of synthesizing the parts to understand the overall meaning.

*Currere* allows teachers to develop self-portraits, which include educational experiences, dreams, and the imagination of teaching. Through telling of our experiences, we can understand and shape our practices. Understanding curriculum as a strategy that transforms experiences into useable knowledge helps us to develop our practices so that they are responsive to the needs of students and to ourselves as educators. Deconstructing personal histories and stories may allow teachers to gain cultural awareness and insight into school systems and structures of power and privilege. By examining our practices, we might also develop strategies and practices for dismantling oppressive systems and structures so that our students may be empowered to find their voices and become active agents of learning and allies in demanding that the structure of school be changed to meet their individual and cultural needs.

## THE PRACTITIONER

As a classroom practitioner and researcher, my goal is to go above and beyond the standardized curriculum to engage, encourage, and inspire my students while introducing them to the world at large and sharing the endless possibilities for their future. This creates a dichotomy between my requirements to teach the standardized curriculum in the traditional manner and my desire as a professional to decide what knowledge is of most worth and how that knowledge should be delivered. Projects and things that are of interest to students take time, and administrators generally want to see worksheets, textbooks, and, now, students spending hours online interacting with the mandated curriculum in preparation for state mandated testing.

Through critical reflection and identity construction, teachers can improve instruction and, thereby, improve student learning and achievement in any discipline. This kind of reflection gives us the opportunity to share our truth and to expose the intricacies of what it is really like to be in the classroom with 30 budding personalities, the care we give, and the joy we share when they discover the true meaning of learning.

School has become a place where many students (especially students of color and those identified as economically disadvantaged) do not want to be. Rather than changing the schools, we demand that students change to fit the capitalistic structure of school that would rather force them out by removing their cultures and cultural practices (languages, values, customs, preferences for reading and music) and ignoring their interests than meet them where they are, encouraging, inspiring, and coaching them to be their best selves.

Each summer, I purposefully reflect upon how to enhance the mandatory curriculum I deliver. How can I create an experience for my students that is indelible while promoting authentic learning that not only supports their academic growth, but their social and emotional growth? How do I get students to think differently not only about the math they are learning, but to reflect on that learning and make meaning of it that is transformational? How do I get them excited about the possibilities for the future? I must be honest; my goal is always to provide my students with an experience that was better than the math experience they had the previous year and probably the best they will have for the rest of their school careers. Unfortunately, this is an easy task. I know that I am the only teacher in my school who plans a field trip, and sometimes two, every month. I am the only teacher who teaches math but has more resources for projects from every branch of science and engineering than all of our science and math teachers in the district. Students will often forget a great lecture, but they will almost always remember a great experience. Critical to this notion is that experience can lead to learning and, therefore, transformation.

“There is an intimate and necessary relation between the process of actual experience and education” (Dewey, 1938, p. 20). Throughout the 20<sup>th</sup> century, John Dewey’s concept of learning through experience has been valued as an important foundation in education. He called for education to be grounded in real experiences and rejected the notion that schools should focus on repetitive, rote memorization. Dewey’s philosophy of experience is the basis of a curriculum that leads to growth and values. New experiences are usually acquired when past experiences interact with the present and are filled with educational meanings and educational materials. Dewey (1938) said that experience “includes equipment, books, apparatus, toys, games played” and is the “total social set-up of the situations in which a person is engaged” (p. 44). Teachers must be familiar with and understand students’ background knowledge in order to design and facilitate a lesson interlinking past experiences and new knowledge. While Dewey (1938) theorized that the basic tenet required for learning was experience, he also believed that reflection was a key component in making an experience worthwhile. Thus, Dewey believed that experience and reflection were both required for an experience to lead to true learning for future application. This instructional model teaches students how to apply information to real-world situations and facilitates greater retention of what is learned. Students remember what they learned because they see meaning in what they do, and it provides them with an opportunity to acknowledge and demonstrate that they are good at something. This is juxtaposed to what Friere (2005) called “banking education,” which our current education system subscribes to, in which our students learn by rote memorization and are treated as empty vessels into which the teacher deposits knowledge (like money in a bank).

### DEAR MATH LETTER – THE ASSIGNMENT

This project used Pinar’s process of *currere* to provide a lens for my students to reflect on their educational experiences with math (regressive), imagine future possibilities (progressive), examine the relationship between the past, present, and future (analytic), and create new ways of thinking about their educational experiences (synthesis). The *currere* method was used to deconstruct past and present experiences with mathematics by 7<sup>th</sup> grade students as defined by Pinar and Grumet’s (1976) work. These experiences became what Pinar described as their “data source” and served as the foundation for their writing.

Historically, many students, especially those classified as economically and educationally disadvantaged, fear mathematics. In fact, some just hate mathematics. They feel that they aren’t good at mathematics, they don’t believe they can do it, they don’t see the value of it, and they often fail to put forth much effort. As early as 3<sup>rd</sup> grade, these students have been labeled by teachers as incompetent, unmotivated, cognitively deficient, mathematically illiterate, and as less than ideal learners relative to other student groups. These students come to my classroom with fragile mathematical identities. Math holds an elitist role in most schools in the United States, which holds that only those who are gifted can “do” math. According to Boaler and Dweck (2016),

When mathematics is taught with an attitude of elitism, and it is held up as being harder than other subjects and suitable only for the gifted few, a tiny subset of those who could achieve in mathematics—and the scientific subjects which require mathematics—do so. When this elitist idea is combined with stereotypical ideas of who has the gift, harsh inequities are produced. (p. 95)

Many teachers, perhaps unknowingly, practice and perpetuate math elitism. They may give greater attention and encouragement to those who are more gifted, leaving everyone else with negative assumptions about themselves. Therefore, many students are excluded from the opportunity to learn and develop an affinity for math or given the encouragement to pursue their academic passions. This math elitism results in students experiencing anxiety, avoidance, exclusion, and helplessness. My job as an educator is to build and repair this broken relationship and to work to eliminate elitism in mathematics. This project was an attempt to encourage students to uncover, discover, explore, and reclaim their relationship with their mathematics experience.

Students in my 7<sup>th</sup> grade math class were asked to revisit their math past and reflect on and write about their present experience/relationship with math as they wrote a letter to themselves. Students were asked to think about their experience in math class the previous year. I explained that we generally don’t experience things in isolation and that our experiences often include other people, happen in a location, and can be physical or emotional, making us feel come kind of way. Because they were middle school students, I didn’t want them to get stuck on writing about their teachers, who they may have liked or not, and miss the opportunity to reflect on their learning and making meaning of it, so they were encouraged not to think about the teacher, just the kinds of things (projects/activities and field trips) they experienced and then compare them to the current school year. They were asked to describe how their experiences shaped their thoughts and actions and how those experiences affected who they could be in the future. I asked them if they had changed the way they think and feel about math as a result of their experiences. The students were given this assignment in the fall when school began. I felt it was important to capture their thoughts about their 6<sup>th</sup> grade math experiences early in the school year before they forgot the most significant details. In the spring

after testing, I asked them to go back and edit their writing from the fall so that they could write about their experiences from their 7th grade year. This self-reflective process allowed students to find their voices while enabling them to link meaning to experience. It aimed to help students become more confident in their skills, abilities, and self-esteem related to mathematics achievement, as well as their social and emotional growth.

While this work was primarily focused on how it befitted students, it also was beneficial to me as their teacher as I was able to use their reflections to examine my own practices. In *Teacher Leadership for the Twenty-First Century*, Poetter (2014) cited Dewey as “calling for teachers to study their own work and to report their findings to colleagues as a means for understanding and improving education” (p. 95). He went on to make a profound statement, “those who know the most about teaching and learning (teachers!) should produce knowledge about it” (p. 95). The ultimate goal of teacher leadership is to improve the quality of education to which all children have access, to shape curriculum and practices that directly meet the needs of each student.

### THE LETTERS

(Letters were not edited in order to preserve the students’ voices)

Dear Kanyiah,

Last year I didn’t learn very much because we had so much distractions and the teacher would go too fast when doing a lesson. So therefore, I had a rough time concentrating and understanding all the concepts that were being taught to me. My experience with math was bad last year so, it caused me to give up on math and not like it. So, coming into 7<sup>th</sup> grade I didn’t even want to attempt math because last year I barely learned anything that encouraged me to like math.

The thing that was great about this year was that I focused a lot this year. We did amazing projects that helped us with math. My teacher taught us slow and made sure I knew what to do. I learned integers, circumference, and how to do word problems. Word problems were the hardest thing for me to do, but we got through it and now I get it, and I would rather do a word problem than a regular problem. We also went on great field trips such as: Morehead State University, Golden Corral, we went to the Aronoff Center to see a one man play called “Adam Clayton Powell” and more. I had the best experience in those field trips. We also met wonderful people along the way, and I really loved that in particular because now I know when I get older if I need help with something or a second opinion I can ask them and I know I will get the best advice. Last year was not like this at all. We didn’t do any projects; we didn’t go on any field trips, and my math skills were horrible. I didn’t get the learning experience that I needed, and I didn’t push myself to my full potential. Field trips are important to my math experience because we learn more than just math it mixed math with history with fun etc.

My advice to myself is to work hard, keep a good attitude, stay smart and don’t get distracted and to STAY FOCUSED. It is important for me to follow this advice when I get older because I’m already smart but when I really focus and push myself, I will be great and wealthy in life. In the future I hope to be wealthy having a good car. I want to be able to buy what I want and supply stuff for my family also. I don’t want to have to struggle or ask people for anything or have to borrow money from my family members. I want to be able to take care of my siblings and get them anything they ask for. The past has really prepared me, and my parents did also by disciplining me and setting good examples for me to follow. I did stuff that got me in trouble but I learned from it so I won’t do it again and I’m happy that I learned.

Future Me,  
Kanyiah

Dear Michael,

My favorite things in my 2017–2018, 6<sup>th</sup> grade math education that help me develop into the person I am today is division and multiplication. Because division is it is hard but, I got better at it. Multiplication was my favorite thing in math, and I am good at it.

My favorite game we played was Equate.

This school year 2018–2019, 7<sup>th</sup> grade, I learned how to use hot glue and how to sew. I learned how to do fractions better. This year was better than last year. We did way more this year. We went on more field trips then any year ever. My favorite field trip was the Air Force museum. I learned about different types of planes and helicopters. I think I got better at math because I was not good at it last year.

Some advice for me in the future is. Do not hang out with the wrong people. Do all your work so you can get good grades. That is it and be treated how you what to be treated. My favorite was the field trips.

Thanks, Michael

Dear Steven,

What was great about my 2017–2018 math education was it help work out hard problems I would get stuck on most of the time and I had fun doing 12 by 12 and Equate. My education changed me over the year by helping me understand how to explain how I got my answer. I learned how to work out harder problems out and showing how I got the answer. My favorite thing about my education that help me was stay after school and getting help on the stuff I had trouble with. I learned in math class was Equate. My grades were good, I had A's and B's. Also, I wish we play Kahoot and put nicknames for Kahoot. If I could give my future self one piece of advice, it would be go in with a strong attitude and a good school year, be ready to work.

Now that I am in 2018–2019 school year, my goal for this year was to pass the 7<sup>th</sup> grade and achieve an A in math class. My hope for the future is to become a Major League Baseball player and my second hope is to become car engineer if I don't become a Major League Baseball player. My dream is to become an Athlete or an Engineer. I learned about data plots, ratios and proportions, angles and circumference. The correct and returns, taking notes, asking questions and staying after school, all these things helped me become smarter. Things that I did this year that I didn't do last year was ask more questions to help me understand and staying after school more. The correct and returns help me understand the mistakes that I made and figure out different ways to solve problems.

Your Friend, Steven

5/10/19

Dear Future me,

I have had a great past year and great experiences. My favorite experience was the Morehead State University tour. I really liked the college because they had a whole area on the college campus where you could study to become a veterinarian. The campus had lots of areas where you could study, relax or hang out.

My favorite memory was the first day of school. I say this because in this past school year I have made new friends and had new and old teachers and lots of more new educating experiences. I have learned so much over the school year and feel positive about my state testing.

I have grown in so many ways over the 2018–19 school year. I have grown more mature, got more education and gained more self-respect for me and others. I have also had a bumpy journey this school year, but it has all worked out in the end. Overall math

has to be my favorite subject. Not only because I had/have the best math teacher (Ms. Webb) but because I and Dr. Webb pushed me so I could do my best.

Math is everywhere in life and is going to be a big part of whatever you do and wherever you go. That's why math is so important. My math experience has changed drastically over this school year from last year. When I was homeschooled last year, I was bored and lonely, so I didn't do my schoolwork and play games. I wasn't interested in learning so when I came back to NCH, the beginning of the school year was tough. I didn't know much of anything, but everything turned out well in the end. I learned about ratios, multiplying and dividing fractions, circumference of a circle, perimeter and area and finding the value of X.

I have done lots of fundamental projects this school year. I have done Bowties, Graham Cracker houses, cooling pillows, Bloxels and Y-Par. The Bowties were going to be sold for 2 dollars and all the money we earned was going to St. Jude's for cancer research. I was doing Graham cracker houses to learn how to calculate the scale factor of a house. I did cooling pillows for Market Madness (which we won ☺). I did the Bloxels project at the beginning of the school year as an activity. It's a very cool program that you could build and code your own game with. The Y-Par program was all about social justice. This is very important to us, especially now with this generation. Social justice is all about helping those who need it and giving a voice to those who doesn't have that. Social justice is fighting for what's right.

Some further future advice I would give myself is do your best and try as hard as you can. And if you could push yourself to the limits and you could succeed. This is something that is important to remember throughout your life because it can help you succeed.

From, You (Diamond J)

Dear Future Me,

The great things about the 7<sup>th</sup> grade compared to 6<sup>th</sup> grade is that I know how to control my anger better than last year. Even though I am still working on it I improved a lot since last year. My experience in math got a lot better over time, like I used to always fail or do bad on math test now I am getting the highest score in the class in the A+ and B+ group, I know I still got to improve on doing math homework that's mainly why my grade is down but I am working on it. In 6<sup>th</sup> grade, I didn't learn anything I didn't already know but this year I learned a lot more like some geometry. We did a few projects, but this year is different because the projects were fun even when it was just a project on paper.

I feel like I've changed a lot over time like I have better attitudes in class I ain't always mad. I learned how to control my anger and not say something back if a teacher says something to me. I also do my work in class in 6<sup>th</sup> I would never do my work in class. My advice to my future self would be to never give up don't let anyone stay in your way of doing what you want to do.

Kyra

Dear Future Me,


My experiences from math class is that I learned from my mistakes and now I know I can do better than I did last year. The things I did last year are doing equations, fractions, ratios, etc. Those are the three things we really did last year. One of the things I enjoyed last year, is doing Equate (a fun math game). It was the best thing I did last year. Things I didn't like last year, was not going on field trips.

What shaped me for who I am today are my mistakes I had because I learned from having bad grades and not getting my work done like I should've. What affected me for in the future is doing things I know I should do. Yes, because I shouldn't have hung out with the wrong group.

Something I improved on this year was not getting suspended all year. I got suspended a lot last year. What I learned this year in math was geometry, that's one thing I didn't learn last year. I didn't go on any field trips last year and this year I went on plenty of field trips. That's really something I didn't get to do at all last year. This year the best field trip that impacted me is the police academy because it let me know what police officers do when someone has done a crime.

This year, I improved my attitude and my grades. I was a lot of trouble last year but, I changed my ways and this year my grades were good. I had A and B honor 2x in a row.

A motivational speech to the future me: never give up; get good grades and follow your dreams no matter what anybody says just be yourself.

Sincerely,  
Isaiah 

### ANALYTICAL

The analytical stage of *currere* is a “critical self-examination” of the past and present that seeks understanding of the multiple facets of an educational experience (Pinar, 2004, p. 36). *Currere* provided a focus for writing the letters. Pinar (2012) intended that *currere* be used as a “method of self-understanding through academic study” (p. 6). As a self-study, *currere* involves thinking about one's personal story. The epistemological value of *currere* allows students to develop their voices and narratives as they reflect on and understand their relationship with math and their experiences in a math classroom. These letters reveal the layers of meaning and history that surround the students' perceptions of themselves in the context of being math students in the past and present. *Currere* allowed them to explore their experiences with math in relation to the larger educational environment, in an attempt to help them claim their stories, reclaim the idea that they are good at math, and reclaim the idea that math has value while engaging them in interesting and more meaningful classroom experiences.

### SYNTHESIS

Although the teaching environment in the current testing culture zaps the creativity and motivation of students and teachers, I have made a concerted effort to move in a different direction, one that is not only beneficial to the students, but one that is also beneficial to me as the teacher. I have decided to create an environment that makes “optimal experiences” the norm by creating absorbing and challenging tasks for myself and my students. These worthwhile learning experiences, I hope, will inspire students and help them develop an intrinsic desire to continue the journey of becoming lifelong learners while simultaneously becoming their best selves. Ultimately, I really want my students to love learning, and I am always committed to thinking of ways to keep them engaged in our work. It has only recently occurred to me, however, that their learning is also greatly impacted by how I feel about teaching. What do I love about teaching? When and how am I doing my best teaching? How can I reflect and increase my optimal experiences of teaching? In an effort to answer these questions, I tried to make sense of them by engaging in the reflective method Pinar (1975) calls “*currere*.” I describe it as an intentional autobiographic reflective process for uncovering and understanding the crafting of my professional identity and practices as an educator.

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