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Engaging Students with Style

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Abstract

Student engagement is a key factor in the middle school classroom; with many students, all of whom have different needs, it can be difficult to maintain. One of the best ways to engage students lies within the teacher's style of teaching (Everston & Weade, 1989). In this qualitative study, I discuss how various aspects of my teaching style affected student engagement in a sixth-grade mathematics classroom to determine if certain facets of my teaching style consistently fostered student engagement. In this study, student engagement was defined by students' emotional engagement, or students' reactions to classwork, school, and people and how the students' reactions influenced their work. Data was collected through lesson plans, field notes, photographs, and anecdotal records. The findings of this study are significant to the field of education because they could determine ways to maintain and enhance student engagement.

Introduction

Throughout the past two decades, there has been an increased amount of research completed on teaching styles (Khandagi & Farasat, 2011). Most teachers share the understanding that it is crucial to determine how to best meet the educational needs of all students, and one of the ways to do that is to reflect upon one's own teaching style. Teaching style refers to the way in which teachers address students through the use of specified qualities, strategies, and instructional methods (Felder, 2002). Student engagement is one way to measure the effectiveness of teaching style. Student engagement is defined by the amount of attention and interest students show when they are learning, and it is often categorized into behavioral engagement, emotional engagement, and cognitive engagement (Fredericks, Blumenfeld, Fiedel, & Paris, 2004). With this in mind, a self-study was completed to answer the following question: what foundational characteristics of my teaching style promote student engagement in my classroom?

Literature Review

Having Intentional Classroom Interactions

How a teacher delivers content and runs the classroom largely affects students' engagement. Research studies have looked into characteristics specific characteristics that promote student engagement. One aspect of a teacher's teaching style that promotes student engagement is classroom interactions.

In a comparative study between two veteran teachers, Evertson and Weade (1989) observed the types of interactions that teachers had to determine if their interactions promoted student engagement. Evertson and Weade (1989) defined classroom interactions as intentional actions that occur between teachers and their students, amongst peers, and between students and the materials they use in the classroom. Evertson and Weade (1989) recorded the percentage of students who demonstrated on-task and intentional interactions in the classroom. They recorded that 45% of the interactions were unintentional in one classroom. Almost half of the exchanges between the teacher, students, and materials in the classroom were not meaningful; they did not add to the learning environment. In fact, the interactions in that classroom took away from the student's learning. The unintentional interactions led to inefficient use of time and unclear task instructions. Therefore, the students were not engaged in the class work. Thus, unintentional interactions led to an ineffective teaching style. Conversely, Evertson and Weade (1989) recorded that the other teacher's style allowed for 100% intentional interactions. Therefore, the exchanges in that classroom promoted the flow of transitions and on-task behavior. There was high student engagement which allowed for an effective teaching style. Hence, Evertson and Weade (1989) concluded that intentional classroom interactions stand at the foundation of an effective teaching style.

According to Bartholomew et al. (2017), there are specific and controllable ways to have the intentional classroom interactions that Evertson and Weade (1989) noted. In two longitudinal studies, Bartholomew et al. (2017) explored how students think controlled teaching styles affect student engagement. Four hundred and nineteen participants completed a survey in the first study. Using the responses, Bartholomew et al. (2017) deciphered relationships between a teacher's intentional interactions with student engagement. They concluded that there is a linear increase in student engagement when the teacher is intentional about behaviors and interactions. Therefore, a teacher who is aware of his or her actions and meaningfully conducts them will increase student engagement. In the second study, the results reiterated the initial finding. Similar

to Evertson and Weade (1989), Bartholomew et al. (2017) concluded that teachers who thought about their behavior and interactions with students created engaging classroom activities.

Khandaghi and Farasat (2011) also commented upon the attributes that characterize classroom interactions as intentional. In a comparative study, Khandaghi and Farasat (2011) administered a series of two questionnaires to three-hundred students and thirty teachers which asked scenario-based questions; the questions prompted responses which Khandaghi and Farasat (2011) evaluated to determine the effect that classroom interactions have on teachers and students. Khandaghi and Farasat (2011) concluded that the most effective classroom interactions demonstrated a feeling of mutual respect, rapport, warmth, support, and trust (p. 1392). Furthermore, Khandaghi and Farasat's (2011) data suggested that classrooms which embodied interactions with the aforementioned qualities had better attendance and fewer behavior problems than classrooms without intentional interactions. As a result, intentional interactions promoted student engagement. Thus, Khandaghi and Farasat (2011) supported the idea that intentional interactions are specific, and they are an aspect of a teacher's style that promotes student engagement (p. 1392).

While the characteristics described by Khandaghi and Farasat (2011) created intentional interactions that promoted student engagement, Frunză (2014) discussed characteristics that produced negative classroom interactions. He observed and surveyed thirty teachers and sixty students to determine the effectiveness of a teacher's interactions.

Frunză (2014) concluded that interactions are composed of specific attributes that take time and effort to develop; in fact, Frunză (2014) wrote that a teacher who did not have well developed interactions had relationships where the teacher acted "apathetic, sad, seem[ed] to have no interest in students… [had] distant relationships with students and seem[ed] not to be aware of the problems and needs of students" (p. 343). Frunză (2014) noted traits that created negative classroom interactions. As a result of these interactions, students were less engaged because they did not feel a connection with the teacher or material. In contrast, Frunză (2014) commented upon attributes that created positive interactions. These traits consisted of warmth, honesty, enthusiasm, and support (Frunză, 2014; Bhada, 2002; Marks, 2000). When interactions were positive, students felt a connection to their teacher and material; thus, they promoted student engagement. Frunză's (2014) findings exemplified Khandaghi and Farasat's (2011) idea that interactions in the classroom must be intentional and specific in order to promote student engagement.

Interactions are a crucial aspect to a teacher's teaching style. According to Evertson and Weade (1989), interactions include teachers, students, and materials. Also, interactions must be intentional (Bartholomew et al., 2017; Khandaghi & Farasat, 2011; Frunză, 2014). When interactions are intentional, they call for a higher level of student engagement (Khandaghi & Farasat, 2011).

Setting Clear and Authentic Expectations

Some research studies have looked into characteristics of a teacher's teaching style that promote student engagement (Scott, Hirn, & Alter, 2014; Evertson & Weade, 1989; Marks, 2000). Another characteristic of a teacher's teaching style that affects student engagement lies within the expectations that a teacher sets for students.

Scott, Hirn, and Alter (2014) examined the effect that expectations have on student engagement. They observed students at two public elementary schools and two public secondary schools to determine their engagement in academic classes based on set participatory

expectations. The participatory expectations included "visual tracking of teacher or other person speaking during lecture, choral responding, raising hand, responding to teacher instructions, writing, reading, or otherwise completing assigned tasks" (Scott, Hirn, & Alter, 2014, p. 195). After 1,197 observations, they concluded that 82% of high school students were engaged in classroom activities when expectations were established prior to the start of an activity, and 95% of elementary students were engaged in classroom activities when the teacher set expectations before and throughout a lesson. Thus, the presence of expectations affected the majority of the class. Scott, Hirn, and Alter (2014) concluded that there is a positive correlation between setting classroom expectations and student engagement. When teachers set expectations, students know what they are required to do; therefore, they are more engaged in the learning process.

Çakmak (2011) reiterated Scott, Hirn, and Alter's (2014) claim that setting expectations promotes student engagement. He studied two classes of preservice teachers to determine the most effective attributes of a teacher's teaching style. Çakmak (2011) asked the preservice teachers to respond to four open-ended statements regarding qualities they prefer from instructors. The majority of the responses included, "good communication… sets an example… explaining the lesson [instructions]" (Çakmak, 2011, p. 1962). Çakmak's (2011) results described a classroom setting where expectations were set. Good communication in a classroom is defined by dialogue that is exchanged consistently between students and teachers. Per the definition, communication suggested that teachers explained what they expected of their students. Çakmak (2011) also concluded that an effective teacher set an example. This means that teachers modeled what they expected of their students. Finally, he suggested that effective teachers explained the lesson. Therefore, effective teachers told students what they expected them to do. Çakmak (2011) deduced that all the important attributes of effective teachers were forms of expectations. Thus, the characteristics that Çakmak (2011) noted suggested the importance of setting expectations in the classroom.

In a comparative study of two veteran teachers, Evertson and Weade (1989) observed the effects of setting expectations on student engagement. They studied two teachers with vastly different approaches to teaching style to determine which attributes of their teaching style made their teaching style effective or ineffective. Evertson and Weade (1989) recorded the percentage of students both engaged and disengaged and the frequency of expressed expectations. They recorded that one teacher set expectations one hundred and seventy-eight times whereas the other teacher set expectations one-hundred and twelve times. After Evertson and Weade (1989) compared the frequency of expressed expectations with the percentage of student engagement, they concluded that the teacher who set fewer expectations was more effective because the students demonstrated higher engagement levels. Evertson and Weade (1989) justified their findings by explaining that teachers need to set clear expectations. They deduced that the teacher who set more expectations did not set clear procedural expectations; consequently, the students were left to interpret the teacher's expectations. Thus, Evertson and Weade (1989) suggested that effective teachers set fewer expectations for their students because their expectations were clear to begin with. As a result, they concluded that effective teachers not only set expectations, but they set clear expectations.

Marks' (2000) literature review reiterated Scott, Hirn, and Alter (2014) and Evertson and Weade's (1989) idea that setting expectations is related to student engagement. Marks (2000) analyzed 3,660 student survey responses about their attitude, behavior, and experiences in school to find similarities and differences between the responses. Marks (2000) determined that one of the survey questions directly aligned with teachers setting expectations for their students. He

concluded that students who were given expectations were more likely to be engaged; in fact, 18% of elementary students, 22% of middle school students, and 21% of high school students were more likely to be engaged in a classroom where expectations were set. Marks (2000) clarified these findings by explaining that students were not only engaged by teachers who set expectations but were more engaged with teachers who set authentic expectations. He suggested that authentic expectations eliminated the effect that other limiters--such as students' backgrounds or socio-economic statuses--had on students. He suggested that students who had low expectations set for them by society or teachers preceded those expectations. Thus, Marks (2000) concluded that authentic expectations correlate to high student engagement.

Daniels (2010) also suggested that teachers who set authentic expectations for their students witnessed higher student motivation. When students were motivated to learn, they were interested in the content presented to them; therefore, they were more engaged, as well. Daniels (2010) observed and interviewed her own middle school students to determine how their motivation and engagement grew in learning environments. Daniels (2010) proposed that students were more engaged when their teachers set authentic expectations, and they consistently were reminded of them. In fact, Daniels (2010) stated, "students often rise to the challenge and learn from each other when given the opportunity" (p. 26). Therefore, Daniels (2010) affirmed that her students rose to the expectations that were set for them. Just as Marks (2000) suggested, teachers who set low expectations for their students will be met with poor student behavior and low performance whereas teachers who set authentic expectations for their students will be met with students who rise to the expectations. Therefore, Daniels (2010) concluded that setting authentic expectations increased student engagement.

Setting expectations for students is a key part of an effective teaching style (Scott, Hirn, & Alter, 2014). These expectations must be clear and authentic to promote student engagement (Evertson & Weade, 1989; Marks, 2000).

Being Mindful of Instructional Delivery (Student-Centered)

Another aspect of teaching style that has been highly researched when considering student engagement is the manner instruction is delivered. Teachers approach instructional delivery in one of two ways: teacher-centered or *student-centered*.

According to Weimer (2002), *student-centered* instructional delivery focuses on teaching material that supports how students learn best--rather than teaching how the teacher feels he or she instructs best. Weimer (2002) defined *student-centered* classrooms as educational environments where teachers supplement lectures with hands-on, high-interest, and collaborative activities. This is the type of *student-centered* instruction that will be discussed.

Opendakker and Van Damme (2005) suggested that effective teaching styles included *student-centered* instruction. Opendakker and Van Damme (2005) surveyed and observed one hundred and thirty-two mathematics classes over the course of two years to determine how teaching styles indicated effective classroom practice. The surveys prompted questions pertaining to motivation, parent involvement, classroom practice, and teaching style. They identified relationships that arose amongst the survey responses; one relationship proposed that *student-centered* teaching had a positive impact on student engagement because all students were integrated. Therefore, teachers who incorporated their students' interests, used various learning styles, and implemented group work formed an environment where students felt the instruction was created for them. Thus, teachers who consistently use *student-centered* instruction integrate

a larger portion of students into their academic classwork than teachers who use a teacher-centered approach; therefore, they increase student engagement.

Çakmak (2011) also researched the effect of *student-centered* instruction in response to student engagement. Çakmak (2011) statistically analyzed preservice teachers' responses to fifteen statement questions about key attributes of an effective teaching style. He also asked the participants to elect the three most important aspects of a teacher's teaching style. According to the result, the three most important attributes of a teacher's teaching style were the following: teach according to students' interests, display content effectively, and use appropriate instructional delivery method. These three characteristics contribute to a *student-centered* classroom. Çakmak's (2011) results said to teach according to students' interests; this means that teachers engaged their students by targeting what they liked in order to pull students into the content. Çakmak (2011) also deduced that displaying content effectively was important. The only way teachers displayed content effectively was to center the content around their students; they had to know their students' learning styles, abilities, and needs. When teachers instructed while considering these factors, it was a *student-centered* classroom. Finally, Çakmak (2011) suggested that effective teachers used appropriate instructional delivery. Once again, teachers geared their content towards their students' wants and needs which is a *student-centered* classroom. Therefore, Çakmak (2011) described an effective classroom as *student-centered*.

Similar to Çakmak (2011), Maloy and LaRoche (2010) claimed that *student-centered* instruction increased student engagement. Maloy and LaRoche (2010) prepared two-hundred and fifty teachers to implement *student-centered* instructional delivery. They collected data about the effect of *student-centered* instruction on the teachers and students through teacher reflections and student feedback. The information obtained was reviewed to determine what relationship *student-centered* instruction had on student engagement. After reviewing their findings, Maloy and LaRoche (2010) discovered that most teachers spent extra time planning *student-centered* lessons and were more concerned about how *student-centered* lessons would turn-out because they were atypical and untraditional. Maloy and LaRoche (2010) noted that the students were aware of the extra time and effort their teachers put into planning *student-centered* lessons. Since the students saw first-hand what their teachers put into planning, the students responded that they enjoyed how dedicated their teachers were. Thus, the students were aware of their teachers' actions. As Khandaghi and Farasat (2011) and Frunză (2014), suggested, these are types of intentional interactions that promote student engagement. In turn, Maloy and LaRoche (2010) proposed that *student-centered* lessons also promote student engagement.

Evertson and Weade (1989) also demonstrated the effect that *student-centered* instruction had on student engagement in the comparative study that was noted above. Between the two focus teachers, the teacher deemed more effective delivered instruction in a teacher-centered approach whereas the less effective teacher delivered content in a *student-centered* approach. To determine how instructional delivery affected their teaching styles, Evertson and Weade (1989) recorded the teachers' efficiency. They ranked the teacher who used a teacher-centered instructional delivery with a perfect efficiency score in all categories, but the teacher who used a *student-centered* approach was given an efficiency score of 50% or less every category. Thus, Evertson and Weade (1989) concluded that the teacher-centered teacher was a more effective teacher. With that being noted, Evertson and Weade (1989) reasoned that the *student-centered* approach was less effective because the teacher did not set clear expectations for the students. As previously mentioned, setting clear and authentic expectations for students is a part of teachers' teaching style that promotes student engagement (Scott, Hirn, & Alter, 2014; Marks, 2000).

Since the less effective teacher did not set expectations for her students, the *student-centered* instructional delivery was also ineffective. In order for the *student-centered* instructional delivery to produce efficiency and engagement, students must know what they are expected to do. When expectations are not set for students, the students set expectations for themselves which often differ from the teacher's expectations. Therefore, *student-centered* instructional delivery is only effective when it is coupled with the clear and authentic expectations (Scott, Hirn, & Alter, 2014; Evertson & Weade, 1989; Marks, 2000).

Student-centered instructional delivery focuses content on the students (Çakmak, 2011). It creates an effective teaching style and engages student (Opendakker & Van Damme, 2005; Evertson & Weade, 1989)

Methodology

The purpose of this self-study was to determine what foundational characteristics of my teaching style promote student engagement in my classroom. While student teaching for sixteen weeks, I collected data to identify specific teaching characteristics that create an engaging classroom environment. In this study, I collected data on the emotional engagement of my students which refers to a student's reaction, either positive or negative, to classwork, people, and school and the influence that these factors have over a student's work (Fredericks, Blumenfeld, Fiedel, & Paris, 2004). Therefore, I determined if characteristics of my teaching style promoted student engagement based on how my students reacted to the three attributes of emotional engagement.

This study was conducted at a suburban middle school in central Illinois. The participants included twenty-six middle school students who ranged from ages eleven to twelve. These students were members of an advanced mathematics class where they studied sixth-grade and seventh-grade material under the Common Core State Standards. The students came from various elementary schools so their ability levels in this class were mixed. There were no students with disabilities or Individualized Learning Plans in this class.

During the study, I collected and analyzed four data sources to draw conclusions about teaching style and student engagement. These sources included lesson plans, photographs, field notes, and student anecdotes. Ten lesson plans were documented during this study, or two per month, to track my style of instructional delivery and determine the environment I created for my students. Roughly twenty photographs were taken throughout the course of the semester to also document the learning environment and opportunities that my students reacted to. Twenty field notes were collected; I wrote one to two per week. I recorded field notes to distinguish how I implemented lessons and how my students reacted to the them. Finally, thirteen anecdotes per student were recorded to identify my students' interests and how specific students reacted to work that centered around their interest.

The lesson plans, photographs, field notes, and anecdotal records were analyzed to determine if any patterns surfaced. Specifically, I identified the reactions that I recorded in my field notes and anecdotal record to determine when my students were most engaged. Then, I evaluated the type of reactions I recorded as being positive or negative. Furthermore, I compared when the reactions occurred with my lesson plans and photographs to see if there were any similarities between the hour and the environment my students were in when they expressed engagement. The results of my study conclude which aspects of my teaching style had the greatest impact on student engagement. The results are further discussed in the conclusion of my study.

Conceptualizing my Self-Study

While student teaching in the fall semester during the 2017-18 school year, I had the opportunity to work with a progressive teaching and eager students. When I walked into the sixth-grade mathematics classroom, I saw a room of twenty-six students who had a highly successful teacher, an active classroom environment, flexible seating, student-paced lessons, thematic units, high-quality learning, and real-world applications at the end of each unit that enticed even the most reluctant learned. Needless to say, I couldn't help but question, what could I possibly offer these students?

During my student teaching experience, I knew that I would complete a self-study about some aspect of teaching. The only qualification I had for myself was that I wanted to be interested in what I researched. I began by meeting with my professors to get their input. They had several suggestions on what I could research, but their ideas did not spark my curiosity. Then, I went to a cohort who student taught the previous year and also completed a self-study. I went to her, seeking advice about the best way to go about the process of selecting a topic to research. From her experience, she knew it was difficult to find something to research in such a progressive classroom. The piece of advice she left me with was this: go into the classroom and find something that is missing; research what is missing. This concept intrigued me because I thought the classroom that I worked in had everything, but once again, I was left questioning; what is missing?

My research officially began at that point. I spent the following days intensely observing my students and their interactions in the classroom environment. I took anecdotal records on what they did in their free time and how the conversations revolved around that during their independent work time. Following my days of observation, I met with my cooperating teacher to see what she thought the classroom was missing. She suggested that I try to enhance and maintain student engagement. She explained that her classroom was intriguing, but she was afraid that students would lose motivation after several self-paced units. She figured the only way to combat that was to promote student engagement. I asked myself, how can I promote student engagement?

Using the knowledge I obtained from three years of undergraduate coursework and field-site experience in Chicago, central Illinois, and suburban Mexico, I knew there were a few areas that I could target to increase student engagement. As Jabari (2013) suggested, I could build relationships with my students, incorporate my students' interests into lessons, and set high expectations for my students to engage them. With this is mind, I realized that I was the missing factor from classroom. Therefore, I wanted to see what characteristics of my teaching style would promote student engagement.

Implementation of my Self-Study

When I began teaching, I decided to target creating relationships, using my student's interests, and setting high expectations for my student because those are the factors I learned

would impact my students. During the implementation process, I recorded data about my students' engagement using the following sources: anecdotal records, lesson plans, photographs, and field notes. I collected anecdotal records to build relationships with my students and learn about their interests. I then used their interests to create student-centered lesson plans. During lessons, I captured photographs to document my students' reactions to the lessons. Finally, I wrote field notes following each lesson to determine how my actions directly aligned with my students' reactions.

Student-Interests Gathered from Forming Relationships

As previously mentioned, I began the research process by getting to know my students. Throughout my time in the classroom, I took a few minutes out of my teaching time each week to sit down with my students. I usually had a notebook in hand when I pulled up a chair by a group of them. At the beginning of the year, I received mixed reactions from my students as a result of this. Some of them squinted their eyes and asked, *what are you doing, Ms. Stringer?* Students also skeptically asked, *why are you sitting with us?* Other reactions included silence. Although the majority of my initial interactions with my student included these reactions, by the second week, I moved into asking my students questions about their interests. My students willingly responded to these questions. In fact, the majority of my students, when asked about their interests, wanted to share why they enjoyed the things they did. These conversations continued to grow in substance. A sample of these anecdotal records is shown in Table 1. I selected four students to represent the data because the anecdotal records I documented from them represent the progression of conversations from surface-level to in depth interactions.

Table 1: A sample of Anecdotal Records recorded about four different students across three weeks.

Student (pseudonym)	**Date**	**Comment**	**Date**	**Comment**	**Date**	**Comment**
Max	9/29/2017	Loves Germany and wants to travel there one day because of the culture	10/2/2017	Interested in online games	10/13/2017	Interested in video games; said he would like to create a video game one day
Angela	10/2/2017	Loves to write in her free time; hopes to publish a book one day	10/9/2017	Enjoys playing the guitar; has taken lessons for many years	10/13/2017	Doesn't feel like notes are the best way for her to learn
Levi	9/21/2017	Loves Batman; got excited to work on Batman activity	9/29/2017	Got a new haircut; feels very confident about it	10/2/2017	Wants to work on stability ball seat because it helps him focus
Jessica	10/2/2017	Loves spending time with her dogs	10/13/2017	Enjoys science class; wants to be a doctor when she grows up	10/20/2017	Says her dad is a principal and holds high expectations for her

Angela demonstrated the progression in interactions that was noted above. The first interaction listed in the graphic included a surface-level conversation about her interests. She told me that she likes to write and wants to become an author one day. This progressed, as the next week she not only expressed her interest in playing guitar but her personal experience playing the instrument; this was a deeper interaction than the one from the prior week. In the third anecdotal record, Angela exemplified the strengthened relationship when I sat down with her. She expressed that she did not like the part of class where she had to take notes because she felt like it did not benefit her style of learning. Even though she had to take notes two weeks prior, she did not express this opinion to me at that point. It took time and multiple interactions to build the relationship where she could tell me her concerns. As Khandaghi and Farasat (2011) described, rapport and trust come from intentional interactions and are what promote student engagement (p. 1392). In my analysis of my anecdotal records, I noticed that the relationship that I formed with Angela demonstrated the rapport and trust she had for me because she expressed her thoughts and opinions about the class. Therefore, according to Khandaghi and Farasat (2011), Angela was engaged.

Although Angela is just one student, the conversations I had with her are how I created a relationship with her, as with all of my other students. Forming relationships with my students stands at the foundation of my teaching style and is how I got to know my students' interests which later helped me design lessons.

Interest-Based Lessons Used to Engage Students

When creating lesson plans for my students, I specifically targeted my students' interests. Through the incorporation of their interests, I created dynamic lesson plans where the students were immersed into the environment they enjoyed. I did this because, as suggested by Daniels (2010), using students' interests in lesson planning would promote student engagement. Table 2 represents lessons I documented.

As evident from Table 2, each lesson plan included a mathematics topic in relation to a Common Core State Standard, an activity that allowed students to practice what they were assessed on, and an assessment. Finally, I included an area of interest and a student role in each lesson plan. The interest I targeted for each lesson was an interest that I directly took from my anecdotal records. For example, I taught an interdisciplinary mathematics and science lesson where students explained what a cell's purpose was in relation to an organ system while implementing strategies to solve word problems in mathematics. During this lesson, students worked with a model to understand how multiple cells work together to create an organ system. During this lesson, the classroom was transformed into a surgical lab. The chairs were removed from the room and students wore surgical gloves and masks. Similarly, I taught a lesson on Least Common Multiple and Greatest Common Factor where there were body-outlines drawn on pieces of paper. On each of the bodies, there were on Least Common Multiple and Greatest Common Factor problems that the doctors, which the students were addressed as, had to solve.

These two lessons in were implemented in response to my anecdotal records because Jessica, from Table 1, said she wanted to be a doctor. The classroom environment was set up to mimic that interest. To clarify, I set up the classroom as a hospital when the lessons focused on doctors and surgery. I covered tables in papers, and patient charts lined the classroom walls. When the students entered the classroom, I gave them latex gloves and masks because of their role. I expected them to act as interns one day and surgeons on a different day. Thus, during these lessons, I not only had them dress according to these positions but I addressed the students according to their roles. When the students were surgeons I called them Doctor X and Doctor Y. This gave students a purpose. They were completely immersed in their interests which were embellished with academic content.

Table 2: Eight of the ten lesson plans are documented. The lesson objective, activity, and assessment are listed. I also included the student-interest that inspired the lesson content and the role that students took on when they walked into the classroom. Student roles were accomplished through changing the classroom environment, addressing students using verbiage related to the interest, and giving students props to use throughout the lesson.

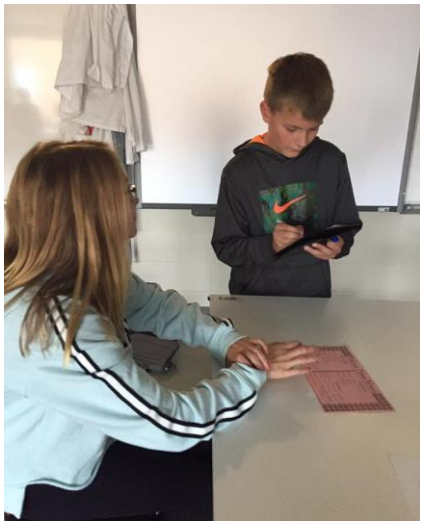
Objective	Activity	Assessment	Interest	Student Role
Label a positive and negative number on a number line	Students work with peers to label life-sized vertical number lines	Students label a positive and negative number on a life-sized number line	Mountains & Oceans	Climber & Scuba Diver
Identify four integers in the real-world	Students research a country of choice and identify four integers that pertain to it	Students identify four integers about chosen country on worksheet	Road Trip & Traveling	Traveler
Plot an ordered pair on a coordinate plane	Students plot an ordered pair on a life-sized coordinate plane after walking out the plot	Students plot one or more ordered pairs on a life-sized coordinate plane	Maps & Traveling	Traveler
Solve three decimal problems	Students solve decimal problems in a packet while on a camping retreat	Students complete three decimal problems in packet and check answers with teacher	Camping & Nature	Camper
Solve a decimal problem with three or more numbers	Students serve a customer and calculate the bill for their items	Students solve a decimal problem comprised of three or more numbers and explain their answer to the customer	Restaurant & Pizza	Server
Explain what a cell does in relation to an organ system	Students create an organ system using a puzzle to visualize how many cells make up an organ system	Students create a representation to explain what a cell does in relation to an organ system	Doctors & Surgery	Intern
Solve two LCM and GCF problems	Students perform surgery on patients by solving LCM and GCF problems	Students solve at least two LCM and GCF problems on patient	Doctors & Surgery	Surgeon
Solve ten fraction problems	Students play *Pie in the Face* fraction game	Students solve ten fraction problems during game	Desserts	Baker

As Çakmak (2011) suggested, using students' interests is a part of a student-centered instructional delivery and is a way to engage students in the content. I incorporated students' interests in my teaching style to determine how it impacted student engagement; thus, it was important to note these lesson plans. They exemplify the direct correlation that I created between my teaching style and my students.

Lessons Based on Student-Interest Increased Emotional Engagement

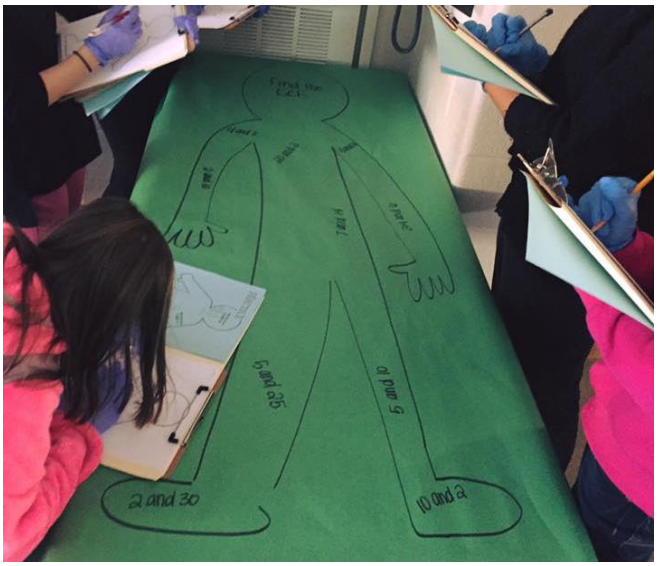
During my research, I also captured photographs to display how my students were emotionally engaged during lessons. I took these photographs randomly and recorded what my students were doing when I took the photographs to determine what caused the engagement that I captured.

(A)



(B)

(C)



(D)

In *Photograph (A)*, there are two students pictured during a lesson on decimals. The interest that the lesson was centered around was restaurants and pizza. The student standing took on the role as a server where he had to politely take the customer's order, serve her the items, calculate the bill for her, and explain how he got the total. Also pictured is a student sitting who acted as a customer, a menu with a variety of pizzas and beverages listed, and aprons hung up behind the server. In the photograph, the server is captured writing down the customer's order. Although the two students know one another, they both assume their roles as a customer and a server.

Photograph (B) is a moment captured from a lesson on decimals where the interest was camping and nature. The entire class is seated around a (pretend) campfire on sleeping bags. The environment was filled with the sounds of birds chirping and a woodsy (candle) smell. The students assumed the roles as campers. In the photograph, they sit silently around the fire and take in the sights and sounds as they work to complete their scavenger hunt decimal packet. The student on the right is pictured leaning in towards the campfire to observe the sight. The student on the left is looking at the screen which pictured a forest scene where the occasional bird flew by.

In *Photograph (C)*, the scene is captured from a lesson based least common multiple and greatest common factor. The theme for the lesson came from a student who wanted to be a doctor. The students assumed the roles of surgeons. In the photograph, several surgeons review the green patient's chart. On the chart, the patient's problems are listed. As the surgeons worked on the patient's problems, they wore gloves and a mask. At other surgical stations, other surgeons worked on patients who had different problems. Each patient needed to have their problems solved so each student worked through multiple problems.

Photograph (D) was captured during a fraction lesson where my students became bakers. Each baker entered into the classroom and sat at a station. At each station, there was a set of fraction problems that the bakers needed to solve to correctly create their desserts. The bakers wore napkins, as seen on the baker who tucking his napkin into his shirt in the photograph, because the bakery ran out of aprons. Of course, the bakers had to try their creations once they solved their fraction problems which is what the baker on the left demonstrates in the photograph.

The four photographs were taken in settings that were created based on my students' interests. While analyzing these photographs, I noticed that students became more engaged in the material based on their candid reactions; therefore, Maloy and LaRoche's (2010) conclusion that creating lessons for the students immerses them in the content is exemplified in these photographs. The students are engaging with the material. Thus, using my students' interests in lesson plans emotional engaged them based on their reactions.

Sustained Engagement in Student-Interest-Based Environments

I recorded twenty field notes during my experience which acted as documentation for my lesson plans, how the lesson actually occurred, and my students' engagement during the lessons. In order to record their engagement, I noted my students' reactions because my research focused on emotional engagement. Table 3 shows which part of my teaching style (action) created student engagement (reaction).

Table 3: Students' reactions were recorded in relationship to the actions I took as the teacher.

Teacher Action	Student Reaction
Facilitated a student-interest activity about culture and numbers	• I looked up Slovenia. I'm 50% Slovenian! • I chose Japan. I've always wanted to go! • I wanted to be different so I chose to research Cuba.
Designed classroom environment that mimicked a camping environment	• This is cool! • Shhh! We don't want to disturb the birds. • Can I roast [my marshmallow] over the candle?
Asked students to summarize a story they were interested in	• It is easier to do this [one]. • I kind of like this. • That one is too hard to try.
Facilitated lesson where students acted as surgeons (based on student-interest)	• I've always wanted to be a doctor! • Doctor, this patient needs your help! • I want to do surgery first!
Allowed students to use any platform they were interested in to create a culminating project	• Can you just give me an idea? • What if it's not what you're looking for? • I really like creating websites so that is what I am going to use.

As noted above, there were several student reactions that arose from my teaching style. All of my actions included incorporating students' interests in activities and classroom environments. Multiple students reacted to those actions. For instance, I facilitated an activity based on my students' interests about culture and integers. During this activity, students were asked to find four or more integers about their country of choice. This gave my students the opportunity to explore any country they were interested in. The students quickly got to work when given the time to research their countries. Throughout the activity, I asked the students which country they chose to explore. Students expressed that they looked up countries because of their nationality, interest in visiting the country, and desire to explore something new. These reactions exemplified that students did not just look for integers but they researched a country in the meantime. This fed their interests.

During a lesson on decimals where I transformed the classroom into an environment that mimicked a campsite, there were several student reactions. One student, who repeatedly became distracted in class because of his discontent with mathematics, walked into the room and grinned. The environment was created with him in mind because of his interest in nature, hunting, fishing, and camping. He walked around the room, his head swooping side to side, taking in the sleeping bags, tent, campfire, and woodsy smell. He whispered underneath his breath, "This is so cool!" After that, he sat down quickly; he seemed eager to begin. Another student walked into the classroom by a student who was talking. Immediately, she put her finger up to her lips, aware of the birds chirping in the distance, and said, "Shhh! We don't want to disturb the birds." These

students demonstrated that an environment created around their interests engaged them and gave them the role of a respectful camper to maintain in the camping environment.

Another example comes from a lesson I facilitated where students acted as surgeons, a lesson created based on my students' interests. Students' reactions demonstrated how they assumed the roles of this position. As a student tucked the straps of her doctor mask around her ears she stated that she was happy because she always wanted to be a doctor. Several other students followed my lead and began addressing each other as Doctor. This exemplifies that the students did not just complete the work in the lesson; they took on the role of surgeons, became invested in the lesson, and completed the required work.

From these Field Notes, I noticed that my students' engagement increased in lessons that I facilitated based on any student's interests. Opendakker and Van Damme (2005) concluded that using student-interests in lesson planning is a form of *student-centered* instruction; they agreed that *student-centered* instruction integrates a larger portion of students into classwork and promotes student engagement. Thus, my Field Notes exemplified how the instructional delivery aspect of my teaching style promotes students' engagement.

Reflecting on my Self-Study

This self-study has been a great opportunity for me to reflect upon my thinking process, teaching style, and the way students learn best. When I began this project, though, I had no idea what I wanted to research. I did not know what I could bring to an already amazing classroom. After the help of several other educators, I realized that I had a lot to offer. I noticed that my teaching style was the perfect thing to study.

While taking anecdotal records, I learned an abundant of valuable information about my students; I learned where my students came from when they walked into my classroom, what they were interested in, and what they expected from me as their teacher. From these anecdotal records, I fully understood my students' wants and needs. While lesson planning, I took time to thoroughly consider what I was presenting to my students to see if it aligned with what they told me during our interactions. From there, I implemented the lesson plans. The moment my students walked into the classroom, they were engaged because the classroom environment was created for them. Thus, it appeared that incorporating my students' interests in lesson planning and in my classroom environment emotionally engaged them because it peeked their interest and kept them involved throughout every lesson.

It is also important to note that there were some limitations that could have altered the findings of this self-study. First, I did not consider how my teaching impacted cognitive or behavioral engagement while I collected findings; I specifically targeted emotional engagement. Therefore, my findings might have changed if I looked at other aspects of engagement. Also, I did not consider how familial, social, or economic factors could have affected my students' engagement. If I considered these factors in my findings, I might have identified different trends in my data. Finally, I only collected data for this study in mathematics. Building relationships

and using students' interests in other subject-areas may have resulted in other findings if they were considered.

Although there were other factors, such as building relationships with my students, which created a strong foundation for me to work with, using my students' interests was key. That is the part of my teaching style that promoted student engagement. I learned in my college coursework that teachers should use students' interests to plan lessons, but I never realized the great effect that it could have. Using my students' interests to teach truly changed the experience my students had in my classroom. Because I listened to my students and taught in a way that interested them, I engaged them. I saw that impact, and it was so rewarding. When I become a full-time teacher, I will definitely get to know my students, create environments based on their interests, and lesson plan for them. It was engaging to my students while I was a preservice teacher so I am confident that it will engage my future students.

Implications of my Self-Study

Following this study, it appears that various aspects of my teaching style promoted student engagement. The part that built the foundation of my findings and allowed me to engage my students was building relationships with them because I got to know my students as people. Those relationships allowed my students to be members of the classroom. I would recommend anyone in the field of education to do this because it creates an environment where the students are willing to learn.

While it is essential for teachers to build relationships with their students, it is also important for teachers to create environments where their students can take on a role. During my self-study, this included times where students were servers, campers, doctors, and bakers. Whether it be one of the roles I used or some other role, it is crucial to have students take on a role in the classroom so they feel connected to it and the content. Allowing my students to take on a role while learning greatly impacted my students' engagement because it allowed them to be a part of the learning process.

As previously mentioned, building relationships with my students and using their interests in lesson plans promoted student engagement for my mathematics class. This could look differently for varying content areas. Researchers could consider how incorporating students' interests in lesson planning for other subject-areas affect student engagement; my research did not determine if student engagement differed with subject-area. Thus, it is crucial to determine if implementing student-interests in lessons creates the same results in classes other than mathematics

Finally, it is important to get exposed to teachers who build relationships with students and use their interests in lesson planning. It is great to consider how it affects students but seeing it in action is different. Preservice teachers should get immersed in classrooms that embody relationship and student-interests. It was so beneficial for me to see how much building relationships with my students, using their interests to create lesson plans, and transforming the

classroom environment affected them. I recommend others to do the same to see that dramatic effect it can have on student engagement.

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