Considerations of Implementing Student-Directed Teacher-Supported Strategies in a Public Middle School Setting

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Considerations of Implementing Student-Directed Teacher-Supported Strategies in a Public Middle School Setting

Kaleb Joseph Ostraff

A thesis submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of
Masters of Arts

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ABSTRACT

Considerations of Implementing Student-Directed Teacher-Supported Strategies in a Public Middle School Setting

Kaleb Joseph Ostraff
Department of Art, BYU
Master of Arts

In an attempt to help middle school art students to be more engaged and have more ownership over their learning experience, the researcher, who is also the classroom teacher, created and implemented student-directed and teacher-supported strategies. Using a design-based research methodology, the author conducted a qualitative study over a twelve-week period investigating the affordances or limitations of implementing more student-directed strategies. The results showed three categories of student responses. The students that were ready and capable to direct their own learning excelled, guiding their own learning, and were able to generate personally relevant and disciplinary connected art. The second category of students initially did not have the artistic skills or the skills necessary to direct their own learning. Through interventions and scaffolding, these students were able to direct their learning and make personally relevant and disciplinary connected art. The last category of students struggled to guide their learning, were unmotivated, and relied on the teacher to direct their learning. The results suggest that neither a teacher-centered or student-directed model alone is adequate to achieve desired outcomes of students guiding their learning and achieving high academic standards. There is a need for a teacher to perceive and adapt their practice to address the multifaceted needs of students.

Keywords: student-directed, teacher-centered, autonomy, motivation, student ownership
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Chapter 1: Introduction

"If you want to build a ship, don't drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea."

–Antoine De St. Exupery

The Problem

In my experience, as a middle school art teacher in Utah, students rely on a teacher to tell them what to do, have little ownership or responsibility for their learning, and seem disengaged with the learning process. However, as a researcher, I needed to gather and analyze data to see if my intuitions regarding student engagement were correct or not. The challenges of student disengagement occur for a multitude of reasons, but in my experience, one of the leading reasons is because teachers and administrators are usually the only people involved in making decisions regarding classroom learning; students, typically, are not included in deciding what will be taught, how it will be taught, and how the learning will be assessed.

Even when students are encouraged to participate in these choices, they often want to be told what to do. However, there are times when students are more motivated or have more ownership of their learning, but it seems impossible to create projects that engage all of my students at the same time. There is an unspoken expectation to not only teach students about art, but also to motivate students to learn. I end up using external rewards or punishments to keep students engaged and motivated. These measures last temporarily or are ineffective. My teaching efforts were focused on controlling how students behave in the classroom. These conditions have taken a toll on my stamina and excitement for teaching. I realized that if I want to last as a teacher and be an effective teacher, I needed to find a new teaching methods and strategies.
Possible Solution

I began researching models, theories, and philosophies that were pertinent to my situation and the challenges I was trying to solve. There were four questions I wanted to answer. (1) What existing literature addresses student-directed learning? (2) What is the relationship between student-directed learning and motivation? (3) How does a higher level of student motivation impact classroom management? (4) How could these existing theories addressing student-centered learning and motivation be applied in my own middle school art classroom?

When I first began searching the literature for scholars addressing concerns like student-directed learning and student motivation in their research, I discovered Piaget (1954,1969) and Dewey (1964). Piaget and Dewey were associated with the development of constructivist theories of learning, which describe learning as a process of constructing knowledge based on doing and experience. One of the most intriguing aspects of constructivism is the way students take on a central role in learning, with the role of a teacher becoming a facilitator or guide. As I researched more, I found more scholars that were not constructivists, but were addressing the same questions regarding student-centered learning and motivation in their research. Freire (1972) and hooks (1994) criticized methods of education that were teacher-centered and treated students as passive objects that could be acted upon, and instead advocated for a more critical pedagogy that results in students developing a critical awareness of the world. Freire’s ideas were challenging to me because I realized I myself, at times, was guilty of being a teacher-centered teacher. As I discovered more theories and research that addressed student-centered learning and student motivation, I wondered how these theories could be applied to a teaching practice?
For this thesis, I was curious to know what would happen if I took the various theories about student-directed learning and applied them in my middle school classes? I wondered if a student-directed approach could help improve student motivation? In addition, I wondered how a higher student motivation level would impact classroom management? I used a design-based research methodology to conduct a qualitative study in my classroom over the course of a twelve-week period.

A Brief Background of Teacher-Centered and Student-Directed Learning/Teaching Methods

Questions about teacher-centered or student-directed learning have been debated for decades. The following section introduces some of the key scholarship, theories, and questions that were pertinent and contextualized my research. The structure of the section attempts to present the line of thinking or questioning I had as I was researching these various ideas.

Teacher-Centered Model

When I began researching various ideas about teaching, I realized the style of teaching I had been using could be called "teacher-centered" (Cuban, 1984, p.15). Cuban (1984) uses the term “teacher-centered” to describe teaching practices in which the teacher controls almost all aspects of the learning process. Traditionally, teachers are viewed as authorities with vast experience and knowledge regarding their subject matter and are expected to impart their knowledge to students (McLeod, 2019). Teaching practices like lecturing, demonstrating, guided practice, large group instruction, and rote learning exercises are common in teacher-centered classrooms (Fosnot & Perry, 2005). I used these kinds of practices in my classroom as a way to control the learning outcomes. Controlling outcomes can be good, like when I demonstrated how to use Xacto knives safely and then made my students practice while I addressed any unsafe techniques my students were using.
At other times, I used the same practices to control outcomes in an approach I have come to feel more negative about because it controlled how students were thinking. For example, I showed students examples of public service announcements, we discussed the concept, and then students wrote their own public service announcements. I then demonstrated how a Xacto knife could be used to carve cardboard to expose layers through the carving process. Students were then given a small piece of cardboard to practice the process. After students proved they knew the process, I gave them a larger sheet of cardboard and had students create a public service announcement using the carving process. In the end, all the students had a carved cardboard public service announcement that we hung up in the hall.

I have come to feel negatively about this approach because I was using these various teaching practices to ensure the final outcome. The students had limited choice. I like the potential in the first approach because it sets up an ability to ask students, “Now that you know how to use the knife safely, what can we do with it? What kind of art can we make?” Maybe more important than the actual teaching practices are the motivations behind the actions. Am I using teaching practices to benefit students or am I using the practices to control thinking and ensure specific outcomes?

Freire (1972) strongly opposed teacher-centered education because he argued the goal of educators seemed to be to prevent the “critical consciousness” (p. 72) of students or to regulate the way the world enters the students' minds. If Freire is right, why do teachers see a need to regulate what students are thinking?

Downes & Groundwater-Smith (1999) suggest that teachers might regulate and feel a need to tell students what to do because they consider students to be immature and incapable of making important decisions regarding their education or maybe as Hein (1995) suggests,
students are seen as blank slates, or using Freire’s (1972) terms, students are considered to be “empty vessels” (p.72) to be filled. These reasons may explain why some teachers justify using teacher-centered practices, but as a teacher who has used teacher-centered practices, I think a consideration of the perceived purposes of schools should be made.

**Purposes of Public Schools**

Brint (1998) argues mass public education began as a social endeavor to “Americanize” (p. 6) new immigrants and imbue them with values like civic virtue, democracy, a spirit of competition and hard work, obedience, and overall good citizenship. Under this view, the public school functioned as a “socializing agent” (p. 4). Beyond the social aspect, Reese (2000) claims public schools were also used as a space to train children to go into the workplace, fueling the large industrial machine of the American economy. Reese and Brint suggest schools, as a public institution, have always had an agenda, curriculum, and specific outcomes desired for students. Goodlad (2004) surveyed parents, teachers, and students to discover what each group thought the purpose of public education should be. Across the board, Goodlad found people want public schools to prepare students for future careers and help students develop personally, socially, and academically. These scholars explain the conception and purposes of public schools, but what is the role of a teacher in relation to the conception and purposes?

Gage (2009) argues the fundamental idea of public education is to have young people interact with adults (teachers) and have beneficial learning outcomes because of this relationship. On one level, the job of a teacher seems simple—interact with students and help them learn—but as a civil servant and employee of a public school, the job of a teacher is more complex because the teacher is evaluated based on learning outcomes that prepare students socially, personally, academically, and vocationally. How exactly does a teacher go about doing this?
Gage (2009) found most teachers in American public schools were using teacher-centered teaching practices. In consultations with teachers, Gage found they often used teacher-centered methods because it was viewed as the most efficient way to ensure student learning matched the expected outcomes, while also allowing teachers to cope with increasing class sizes and additional demands. Some teachers also acknowledged they were taught a teacher-centered method and had seen it modeled around them; using a different approach would require teachers to problem solve on their own when issues arose. I know too well these same concerns, as a new teacher I often felt alone when it came to issues regarding my teaching practice. When I reached out to administration or my instructional coach, they advocated for teacher-centered approaches. The suggestions and feedback often came with wording like “this is best practice” or “experienced teachers do this.” The teacher evaluations I received reflected a preference for teacher-centered practices. I found it was easy to accept teacher-centered teaching under these conditions.

Postman and Weingartner (1969) claim teaching in a teacher-centered manner will not prepare students for the demands of the ever-changing world we now live in. They advocate for an education system that helps students develop into someone who is an “actively inquiring, flexible, creative, innovative, tolerant, liberal personality who can face uncertainty and ambiguity without disorientation, who can formulate viable new meanings to meet changes in the environment which threaten individual and mutual survival” (p. 218). In addition to these attributes, Postman and Weingartner felt public education should teach students to think for themselves and learn how to learn. More recently, Robinson (2015) and Michnick-Golinkoff and Hirsh-Pasek (2016) have also called for greater emphasis to be placed on teaching “twenty-first
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century skills,” like being able to creatively solve problems, think critically, collaborate with others, and communicate ideas clearly.

The basis for Postman and Weingartner’s (1969) opposition to teacher-centered teaching centers on the way in which students are taught; curriculum, or what is learned in school, is less about what is taught and more about how it was taught. McLuhan’s (1964) idea that the “medium is the message” was influential for Postman and Weingartner, as well as Dewey’s, “we learn what we do” (as cited by Postman & Weingartner, 1969, p.17). If what is learned is determined by what a student experiences, what do students experience in a teacher-centered model?

Freire (1972) argued that students are expected to listen, comply, follow instructions, complete assignments and homework, and take tests to verify what the students heard or learned. Students were not included in the decision. At my school, students are told how to walk down the hall, how to dress, and when they can or cannot go the bathroom. hooks (1994) argues education centered on a teacher as an authority who controls learning will result in students learning to be compliant, accept the authority’s view as truth, and rely on teachers to tell them how to learn. The outcomes hooks lists are very similar to the outcomes I saw in my classes when I was using a teacher-centered approach. Postman and Weingartner, Dewey, Friere, and hooks might argue the results were merely an outcome of the teaching students experienced in my class.

Student Motivation and Classroom Management

On a similar line of inquiry, I wondered what literature exists concerning student motivation and classroom management. The following questions are pertinent as well: What happens when a student does not want to learn the content that has been deemed necessary to
fulfill the purpose of school? What if a student’s interests and what they want to learn about differ from the teacher’s?

Ariely (2008, 2016) and Pink (2009) have examined the relationship of external rewards or punishments and motivation. Pink (2009) argues that external rewards or punishments are not sustainable for long-term motivation because the rewards or punishment must increase in intensity or frequency to continue achieving the same response. Ariely (2008, 2016) found that external rewards can be effective when used to motivate people in mechanical tasks, but if the task was a cognitive task, it hindered the individual and ended up hurting performance. My anecdotal evidence supports the claims of Pink and Ariely. Traditionally, I relied on the fear of punishments to motivate students to behave differently by threatening to send a student to the office or call their parent. These threats worked at first, but lost impact over time.

According to Fosnot and Perry (2005), one of the challenges of teacher-centered methods is the reliance on external rewards or punishment to motivate students to behave in a desired manner. The reliance on external rewards originates from a behaviorist paradigm of psychology, which claims behavioral responses can be conditioned and controlled by the use of rewards or punishments (GSI Teaching and Resource Center [GSITRC], 2015). Downes and Groundwater-Smith (1999) argue a behaviorist approach is supported by the common assumption that students are passive and need external motivation in order to achieve desired learning outcomes (Downes & Groundwater-Smith, 1999). As a public-school teacher, I am expected to achieve certain learning outcomes and standards to ensure student learning, but students may not necessarily be motivated to learn things I want them to learn. In the past, I used motivational strategies based on rewards or punishments, but found that student behaviors and motivations were not changed in a lasting way. This situation led me to the following questions: If external rewards or punishments
do not work, how can I increase student motivation to learn the things I need them to learn? And, if students are more motivated, how would that change my classroom management approach?

**Student-Directed Learning Approach**

The literature surrounding student-directed learning was appealing because as evidenced in the scholarship of Mitra (2006), it might be a way to help students become more engaged in the learning process. Mitra set up computer kiosks in rural villages in India. The computers were connected to the Internet, but the interface was in English and was foreign to the local children. Mitra wanted to know if children could learn how to use the computer and Internet without a teacher to guide them. Some of the children in the villages were able to learn various applications on the computer, as well as surfing the web without the help of a teacher. I wanted to know if all the children in the village stuck around to learn how to use the computer or was it just some kids? What caused the unique results? Was it the children’s motivation or did Mitra create conditions that created motivation? Although I had some questions, I began to wonder more about the environment a student experiences and how that plays a role in their motivation.

According to Dewey (1964), students should be seen as active, curious, and purposeful, with a default mind-setting of active learner. Additionally, Dewey argued that a teacher’s role should be as a guide to achieve the purposes and desires of the students. To accomplish this task, the whole classroom, curriculum, and instruction should be centered on creating a learning environment to carry out students' purposes. Dewey recognized that education should prepare students to contribute to society, but felt that students who were truly engaged in learning and developing their unique interests would have something worthwhile to offer society. Dewey’s ideal model focuses on the desires and interests of students. The way Dewey describes students
as being active and curious implies the natural state of students is to be motivated and students will be motivated to learn if the school environment is not hindering them.

Freire (1972), hooks (1994), and Vygotsky (1978) emphasize the importance of social interaction and relationships in learning. hooks (1994) believed in sharing with her students and argued, “intellectual fellowship and radical openness is the heart and soul of learning” (p. 205). hooks felt teaching was like a partnership or community where the responsibility for what happens in the classroom is shared among all participants, not just the teacher. As I considered learning as a community endeavor, I began wondering what would happen if my students and I approached learning together and shared the responsibility for the results? Would students feel more ownership and care more about the results? If allowed to determine how to learn, would students be more willing and motivated to achieve the institutional goals of the school?

As I considered these theories and ideas, I saw a lot of potential solutions to problems I have been experiencing in my classroom regarding student engagement and motivation. Allowing students to learn according to their individual needs and interests may result in improved classroom engagement, while also reducing the need to control students through external motivations.

**Failures and Dangers of a Student-Directed Learning**

Through the history of public education, there have been many advocates allowing students to direct their own learning. Many of the reforms that attempted to implement student-centered practices have come under criticism and, ultimately, have had little impact on the way American public schools function (Cuban, 2004). Many teachers, like myself, have employed a teacher-centered approach because it is familiar, can be an efficient way to address ever-increasing class sizes, and can ensure academic growth of students (Gage, 2009). Multiple
studies indicate the concern over academic rigor is often warranted. Kirschner et al. (2006) found student-led learning often consisted of minimally guided instruction that led to a more chaotic classroom with too much freedom, resulting in students falling behind in educational benchmarks. Students were also prone to develop misconceptions, incomplete knowledge, and disorganized knowledge. Klahr & Nigam (2004) found that students taught in traditional classrooms outperformed their discover-experiential classroom counterparts.

I understand the argument that minimal guidance of a teacher results in poor learning or chaos. I once gave my students powdered graphite with the intention that each student would direct their own exploration of the material by drawing on provided sheets of paper. Instead, many students covered themselves in graphite war paint and others spilled graphite on the floor to create a slip-n-slide. Within a span of five minutes, my room was a disaster and a trail of graphite shoe prints were tracked through the school. My principal still refers to this event as the "graphitastrophe." I was hoping for a controlled outcome, but gave students freedom without anticipating how they’d use the graphite, which resulted in a loss of classroom control. The balance and relationship that exists between students and a teacher seems to be the vital factor in determining the success or failure of learning.

Kirschner et al. (2006) claim one of the challenges of implementing student-centered learning techniques is finding the right balance of teacher intervention. At times I tried to embrace student-centered learning, because I wanted students to have the space to learn through experimentation, but I was afraid of recreating a “graphitastrophe.” Students loved their freedom, but I was unsure if the learning was achieving the larger goals or outcomes I was seeking.
Practical Experimentations

Based on the failures of the past and my own anecdotal experience, there are two areas of concern that need to be addressed to create an effective student-led learning practice: first, there needs to be a strategy to help students direct their learning and contribute to the decision making process; and second, there needs to be a process for the teacher to be involved in the learning process to ensure students are achieving desired learning outcomes.

Implementing a new practice based on student-led theory is a daunting task because there is no “cookbook teaching style or pat set of instructional techniques” to follow (Fosnot & Perry, 2005, p. 33). The challenge for teachers is to dissect the theory and design an associated application. Instead of relying purely on my ideas, I found the example of Marquet (2012) to be relevant to the challenge of designing a student-led approach.

Leadership models

Marquet (2012) is a retired submarine captain who questioned the traditional model of leadership. He was concerned because his submarine crew was trained to follow his orders, even if they saw problems with his decisions, but if each crew member understood the mission and was competent in carrying out his role to meet the mission, then why couldn’t each member be given the autonomy to act without being told what to do? Marquet and his crew changed the leadership structure to offer more autonomy and became one of the Navy’s top performing submarine crews. More members of Marquet’s crew were promoted to leadership positions than any other submarine crew before them.

The traditional leadership structure Marquet challenged and changed is very similar to traditional teacher-centered practices. Marquet is not the only leader that has found ways to break the traditional leadership model. There is a robust collection of companies and researchers addressing these issues in business and research. Although these examples often fall outside of
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educational spaces, they still provide relevant and tested models to build a teaching practice from.

Many of the leaders and organizations that have effectively changed the traditional leadership model have operated under a similar theoretical framework. Each framework attempts to activate team members by fostering intrinsic motivation. According to Pink (2009), there are three basic components of intrinsic motivation: Purpose, Autonomy, and Mastery/Competency. Deci and Ryan (2000, 2008) have written extensively on the subject and explain how each component plays a vital role in developing intrinsic motivation and drive in individuals. Intrinsic motivation cannot be achieved if one of the components is missing. Balancing each component is vital in encouraging students to build their internal motivations rather than being passively and externally motivated by an authoritative teacher.

Pink (2009) also notes that building organizations around intrinsic motivation does not mean individuals are not held accountable or are not reliant on other members of the organization. The role of the leader in this regard is similar to the idea Dewey (1964) had for how teachers and students work together. Dewey argued a teacher’s role should be to help students develop their interests while also preparing them to contribute to society. Dewey further explained that teachers should act as catalysts to spark the intrinsic learning drive of students. According to Dewey, balance is needed between the inner drive of students while still accomplishing the goals of public schooling.

A Teaching Experiment

The idea to introduce student-led teaching practices aligns with constructivist theories and intrinsic motivation research. Additionally, the introduction of teacher-supported strategies was meant to support students’ learning while also ensuring
students’ learning outcomes fulfilled the larger purpose to prepare students socially, economically, personally, and academically.

To begin examining the affordances or limitations of student-led teacher-supported learning strategies, I explained the strategies and invited students to be part of the research. Students began directing their learning by selecting an art-related theme or inquiry to investigate during the semester. The goal was for students to select something meaningful, interesting, or relevant to them personally. In this way, students chose what to learn about in order to have more ownership, be more excited, and reduce the need for me to tell students what to do. The students' theme or inquiry became the basis of an individual project, which students worked on throughout the semester.

One school day, every other day, was reserved for students to work on their individual themes or inquiries. On these days, students were autonomous in how they worked and learned. My role on these days was that of a facilitator as I worked one-on-one with students. On the other school days, I guided students in a more traditional teaching approach. I selected the lessons and activities for my students, but tried to select topics based on the needs or requests of students. The goal of these days was to build the competency and skill base of students to increase their abilities to be autonomous on student days.

I hoped to create a hybrid approach to learning by structuring my teaching practice to accommodate both teacher- and student-led learning. Half the time, students were expected to guide their learning. Students were treated as capable, intelligent, active learners. As a result, I hoped students would learn how to learn, think for themselves, overcome failures, be creative, and have more ownership of the learning process. I also hoped my role as a teacher would become one of facilitator and collaborator with students. I maintained some control over the days
I directed to ensure students were meeting certain standards and provide a way to help students develop their competency. As I worked in this way, I hoped my students and I could tap into a constructivist learning approach, while avoiding the failures that I and other teachers have experienced far too often.

**A Brief Chapter Outline**

The rest of this thesis is broken into four chapters that discuss the literature review, methodology, analysis of the study, and a summary discussion of the study with a list of implications for the field of art education.

In chapter 2, I further discuss the literature surrounding the themes I introduced earlier. I describe the pertinent histories that have shaped the conceptions of public schools, the roles of teachers and students in the learning process, the debate between teacher-centered education and constructivist learning, the failures of student-led strategies, and lastly, the leadership models that build intrinsic motivation. Chapter 2 provides a background and framework to contextualize the research I completed.

In chapter 3, I discuss the design-based research methodology I selected to use for this study and explain the rationale and context I used to select design-based research. Afterward, I present more details of the research process including the research protocol, what data is in the study, the methods I used to collect data, and how the data was analyzed.

In chapter 4, I share the findings of my research, which were pulled from the analysis of the data I collected. I share the research framework I used, as well as an explanation of the context in which I conducted my research. The rest of the chapter shares the results of the study, as well as the analysis of the findings. The findings are broken into three segments. The first section focuses on the results associated with using iterative research cycles, which are inherent
in design-based research. The second section provides student art examples and individual narratives. The last section looks at the larger themes that emerged across the entire study duration.

In chapter 5, I summarize the findings of the research and discuss the implications of these findings. The findings have been broken down into larger themes, and each theme is discussed based on the limitations or affordances that occurred concerning the goals I set up at the beginning of the study. The conclusion of this chapter presents the implications for further research and the contributions that can be made to the larger conversation surrounding student-led learning.
Chapter 2: Literature Review

The first part of this literature review looks at the scholars that discuss the purpose of public education. Understanding the purpose of public education is important because it is against these criteria that my effectiveness as a teacher is judged. After discussing the literature on the purpose of schools, I compare teacher-centered teaching practices with student-directed models. Part of the discussion looks at the philosophies, practices, and criticisms of each practice. Afterward, I address the scholarship that explores why the traditional model in public schools has remained a teacher-centered approach, despite the attempts and pressure to implement constructivist ideas. The last portion looks at the scholarship being done outside of education regarding motivation and leadership and the implications these ideas might have for implementing a student-centered model in a classroom setting.

Public Schools: A Contested Subject

According to Spring (1991) in American Education, public schools were created to be an institution to impart important ideas and values to children. Since their inception in the 19th century, there has been an ongoing debate over what should be taught or what should happen to students as a result of attending school. The role or purposes of schools as a public institution is important to consider in regard to discussing the teaching philosophies, because the job of a teacher is to carry out the mission of the school.

Early Schools

The beginnings of public education in America began as a moral imperative. Reese (2000) notes in the book, Reconstructing the Common Good in Education, the United States was experiencing tension in the 18th century due to clashes between social classes, racial tensions, a changing industrial world, and increasing immigrant populations. Out of this climate came the
beginning of public schooling. Promoters of public education, like Horace Mann and William Harris, thought a free public education system would be a solution to the rising tensions in the U.S. over race and class disagreements, stop social disorder and crime, breakdown social animosity, promote social cooperation, and provide the same opportunity to all regardless of who their family was (Reese, 2000).

Mass public education was seen as a “socializing agent” (p. 4) to promote a common set of values like civic virtue and democracy and to “Americanize” (p. 6) new immigrants to the “American way” (Brint, 1998, p. 6). The values of the time were things like competition, hard work, obedience, and overall good citizenship (Brint, 1998). William Harris shared his vision for public schooling:

It [public education] protects one class against another by giving an opportunity to the children of all classes for free competition in the struggle to become intelligent and virtuous. An aristocracy built on the accident of birth, wealth, or position, cannot resist the counter-influence of a system of free schools wherein all are given the same chances (Reese, 2000, p. 30).

In addition to the moral values of virtue and intelligence, education was used to prepare students for future jobs. This shift resulted in practical education and vocational training becoming more common (Reese, 2000). Robinson (2015) in his book Creative Schools, argues education in the 1800s and early 1900s was specifically designed to train students to function in an industrial world. Students were trained to comply and listen to teachers in preparation for the mundane tasks they would perform in the workplace. Students were told the more education they received, the higher paying job they would have in the future (Reese, 2000). Students were also prepared for the social demands of a complex society as they developed intellectual skills and
knowledge and learned responsibility, talents, and freedom of expression on a personal level (Spring, 1991). However, there were other voices in the struggle to define American curriculum. For example, progressive educators, such as Dewey (1964), felt that public education should place an emphasis on student experiences that would help them grow as individuals, not as a preparation for later life. Other educators, like hooks (1994), felt that public education should be about social justice and resolving problems in society.

Goodlad (2004) conducted a survey to find out what parents, teachers, and students thought schools should be teaching. Based on the results, he found participants’ responses fell into the following categories: *vocational*, the preparation for a future career; *social*, the preparation to participate in a complex society and its various demands; *intellectual*, the learning of academic skills and general knowledge; and *personal*, the development of character, personal responsibility, talents, and self-expression (Goodlad, 2004). Based on the survey results, Goodlad concluded that people still hold the same basic ideas that originated from the early history of public schools.

**A Call to Action**

Although the general purposes of education have stayed fairly consistent, how these purposes are accomplished is still debated. Michnick Golinkoff and Hirsh-Pasek (2016) argue the purpose of schools should still prepare students for a future career and develop their intellectual and social skills. The methods used to accomplish these goals should match the ever-changing world. These authors suggest that schools, or more specifically teacher-centered practices, are no longer meeting the demands of the workplace, which needs thinkers, problem solvers, and people who can work well together. According to a national study of employers, Michnick Golinkoff and Hirsh-Pasek (2016) argue the traditional model of teaching, with
practices like standardized tests and doing worksheets, will no longer suffice in teaching students how to think and solve the challenges they will face in a twenty-first-century world. Robinson (2015), like Michnick Golinkoff and Hirsh Pasek, argues schools are no longer helping students achieve the goals that will help them succeed in a twenty-first-century world.

This new style of education sounds like the ideas Postman and Weingartner (1969) proposed in the book *Teaching as a Subversive Activity*. Postman and Weingartner defined the world as a rapidly changing place and advocate for an education system that prepares students for this reality. Postman and Weingartner believe students must be able to identify from the preexisting knowledge and concepts what is useful, what is irrelevant, and what should be replaced, forgotten, or updated to address the changing circumstances. The ultimate goal is to help students leave the system as people who are “actively inquiring, flexible, creative, innovative, tolerant, liberal personality who can face uncertainty and ambiguity without disorientation, who can formulate viable new meanings to meet changes in the environment which threaten individual and mutual survival” (p. 218). Postman and Weingartner advocate for teaching that results in student engagement through relevant and open pedagogies, which will result in students who have initiative, creativity, and self-confidence and who are self-reliant, hard-working, and independent, “which is equivalent to learning how to learn” (p. 150).

Michnick Golinkoff and Hirsh-Pasek (2016) call for a new focus on “twenty-first-century skills” (p. 4). These skills are content, collaboration, critical thinking, creative problem solving, communication, and confidence. These skills can be adapted to all levels of students and can be used to address any number of problems that students may face in their lives. Singapore’s minister of education described how twenty-first-century skills have become part of his country’s educational vision:
We want to nurture young Singaporeans who ask questions and look for answers, and who are willing to think in new ways, solve new problems and create new opportunities for the future. And, equally important, we want to help our young to build a set of sound values so that they have the strength of character and resilience to deal with life's inevitable setbacks without being unduly discouraged, and so that they have the willingness to work hard to achieve their dreams (as quoted in Michnick Golinkoff & Hirsh Pasek, 2016, p.36).

Singapore’s vision for education apparently impressed Michnick Golinkoff and Hirsh Pasek enough that they advocate a similar vision for the American public education.

**Analyzing Traditional Teaching**

A teacher’s job is to ensure students develop socially, intellectually, personally, and vocationally (Gage, 2009). The manner of teaching practice in which this was done traditionally has been described as being “teacher-centered” (Cuban, 1984, p. 15) or as Gage called, “Conventional-Direct-Recitation” model (p. 62). It is also labeled as “traditional” (Cuban, 1984; Fosnot & Perry, 2005; Gage, 2009; Hein, 1995). Larry Cuban (1984) suggests this label “traditional” is a fitting one because it has been around for so long and is widespread throughout public schools in America.

**Views of Knowledge and Learning**

According to Fosnot and Perry (2005), this prevalent teaching style is rooted in behaviorist psychology. Behaviorism is a paradigm of psychology with the view that learning is a system of responses to physical stimuli. Knowledge in this sense is viewed as skills and appropriate behaviors in response to specific stimuli (GSITRC, 2015). Learning is seen as a systematic response built out of practice and positive reinforcement. Activities like observation,
listening, taking notes, and practicing with feedback is thought to result in learning (Fosnot & Perry, 2005). Knowledge in this sense is objective, right and wrong, and can be broken down into sequenced logical steps, which can get progressively more complex (Fosnot & Perry, 2005; GSITRC, 2015).

**Views of Students**

A student is viewed as being passive, unmotivated, and in need of reinforcement through reward or punishments. In this traditional model, students are viewed as being immature and incapable of making decisions in regards to their education (Downes & Groundwater-Smith, 1999). Downes and Groundwater-Smith argue this is the reason students were given little power in educational spaces. Students in this model are passive and expected to follow the directives of the teacher.

**Roles of a Teacher**

McLeod (2019) argues in a traditional model a teacher is viewed as an expert and imparts the knowledge they have to their students. Often the curriculum is fixed and adheres to a predetermined plan, which breaks the curriculum into incremental chunks that build sequentially. Fosnot and Perry (2005) believe this view necessitates a teacher who can break down the curriculum into logical and clear steps that students will learn. In *A Conception of Teaching*, Gage (2009) concluded the teacher traditionally was viewed as the authority and was expected to control all aspects of teaching, with the exception that what is taught is often dictated by others. The teacher controls the learning by presenting goals for the day, reviewing previous prerequisite knowledge, presenting new material in steps with student practice after each step, providing clear and detailed instructions, providing systematic feedback to correct errors, and assessing student learning (Gage, 2009; Migliani et al., 2017).
Criticisms

Postman and Weingartner (1969) challenge the traditional model of teaching in their book *Teaching as a Subversive Activity*. They postulate that curriculum is traditionally thought of as only what is taught, when it should be expanded to acknowledge the whole experience of a student because what a student experiences is what they will learn. Postman and Weingartner’s work is based on Marshall McLuhan’s (1964) famous saying, "the medium is the message" (p. 7). McLuhan (1964) argued the mode in which something is communicated or experienced is what will be learned. Consider then what students experience in traditional education. Freire (1972) in *Pedagogy of the Oppressed* described the experience of students in traditional education this way:

- the teacher teaches and students are taught;
- the teacher knows everything and the students know nothing;
- the teacher thinks and the students are thought about;
- the teacher talks and the students listen—meekly;
- the teacher disciplines and the students are disciplined;
- the teacher chooses and enforces his choice, and the students comply;
- the teacher acts and the students have the illusion of acting through the action of the teacher;
- the teacher chooses the program content, and the students (who were not consulted) adapt to it;
- the teacher confuses the authority of knowledge with his or her professional authority, which is set in opposition to the freedom of the students;
- the teacher is the subject of the learning process while the pupils are mere objects (p. 72)
Based on these observations, Freire describes education as “an act of depositing, in which the students are the depositories and the teacher is the depositor” (p. 72). The students are expected to patiently receive, memorize, and repeat what the teacher said. Within this method, students are described as “containers” or “receptacles” (p. 72) delineating the student as a powerless object the teacher controls. Freire thus argued, "Students cannot become truly human” (p. 72) because they are treated as objects. Freire believed the goal of educators who subscribe to this method of teaching is to prevent the “critical consciousness” (p. 72) of students or to regulate the way the world enters the students' minds. This same sentiment was made by Her Majesty Queen Rania Al Abdullah of Jordan, she said, “In the Arab world we still focus too much on rote learning…We teach children what to think rather than how to think” (Wiseman et al., 2013, p. 66).

hooks (1994) supports Freire’s claims and criticizes teacher-centered models because students are trained to be unengaged and to accept the teacher's words as an authority. Within this system, students are “passive” (p. 40) which is in direct opposition to people's natural state. Similarly, Robinson (2015) argues traditional teacher-centered practices train students to comply and obey, which in the industrial age may have been a positive outcome, but no longer suffices in preparing students for the demands of the world they live in. Robinson claims the ultimate goal of education should be to "enable students to understand the world around them and the talents within them so that they can become fulfilled individuals and active compassionate citizens” (p. xxi).

**Analyzing Student-Centered Teaching Practices**

In contrast to teacher-centered philosophies, student-centered practices focus on the learner instead of the teacher and have often been linked to Constructivist Learning Theory
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(McLeod, 2019). Constructivism is a paradigm in which learning is viewed as a process of constructing knowledge and understanding of the world based on experience (Olusegun, 2015; McLeod, 2019; Fosnot & Perry, 2005). The interpretation and formation of knowledge is determined by the learners' previous experience and understanding. Many reforms in public education sought to inject more constructivist approaches into the public-school system in opposition to traditional teaching practice (Gage, 2009).

Views of Knowledge and Learning

Olusegun (2015) claims that Jean Piaget’s Cognitive Learning Theory is one of the foundational ideas behind constructivist theories. Piaget studied how children learned and was fascinated with the reasons children gave wrong answers to questions. Piaget viewed knowledge as the creation of schema or models of the world. Learning is the active construction of these schemas, which takes place in the learner's mind (McLeod, 2019). As a learner encounters new experiences, these previous schemata are used to interpret and understand the new experience. At times, a process of assimilation is needed to bring the internal mental model into equilibrium with the reality of the world ([GSITRC], 2015). For example, a young child that knows birds fly may also label an airplane a bird because it is flying. In this context, the child's schema is in a state of disequilibrium with the real world and the help of a parent or teacher may help bring their schema into a more accurate view of the world.

In dialogue with Piaget’s ideas, Postman and Weingartner (1969) believe learning happens all the time and what is learned is often more of an indication of what a student experiences or values. In addition, new learning is always built in relation to preexisting knowledge experience. With this view of learning in mind, Postman & Weingartner argue students should be thought of as active “meaning makers” (1969, p. 90) in creating their realities.
This can complicate learning at times due to students interpreting an experience differently than the teacher, leading to coincidental or unintended learning. Earl Kelly described this scenario:

Now it comes about that whatever we tell the learner, he will make something that is all his own out of it, and it will be different from what we held so dear and attempted to “transmit.” He will build it into his scheme of things, and relate it uniquely to what he already uniquely holds as experience. Thus he builds a world all his own, and what is important is what he makes of what we tell him, not what we intended (Earl Kelly as cited in Postman & Weingartner, 1969, p. 94)

At times, it may seem that constructivists are against teaching content to students and that direct instructional strategies are viewed as evil. Strategies like beginning a lesson with a short statement of goals, giving clear instructions, providing lots of step-by-step practice, and continuing practice until students are independent and confident, are often used as a way for teachers to control outcomes with the result that students are not allowed to direct-their own learning (Gage, 1984). Delpit (1988) further argues direct instruction techniques can be so embedded in a culture of power that students not a part of the culture become unknowingly disadvantaged by these techniques. There can still be a place for conventional methods or materials of learning, but Postman & Weingartner (1969) feel there are times content or instructional standards can be fabricated for the sake of being able to easily evaluate or assess students. The need is for content and teaching practices to address the relevant needs of students, regardless of their participation in the culture of power, and help students to learn how to learn.

Views of Students

One of the important aspects of Constructivism is the way it acknowledges the motivation and capabilities of individual learners. Postman and Weingartner (1969) argue people learn best the
things they participate in selecting and planning. Too often, students are asked to learn and tell other people’s stories and not their own, which Postman and Weingartner argue is problematic. The curriculum then should start with the students’ interests, concerns, fears, dreams, etc. One of the great initiators of learning is need or question. Postman and Weingartner claimed, “there is no way to help a learner to be disciplined, active, and thoroughly engaged unless he perceives a problem to be a problem or whatever is to be learned as worth learning, and unless he plays an active role in determining the process of a solution” (p. 52). The last part of that quote suggests that students will be more invested and engaged in learning if they are involved in determining the curriculum. Culturally responsive could be another way to describe this kind of education. Ladson-Billings (1995) suggests culturally responsive education describes a “dynamic and synergistic relationship” (p.467) between the school culture and home culture of students. An important skill in a culturally responsive classroom is the ability to listen and perceive what is important or relevant to students (Ladson-Billings, 1995).

What many of these scholars are suggesting is the need for a collaborative relationship between students and teachers. Downes and Groundwater-Smith (1999) argue a collaborative learning process leads to students who engage in learning with enthusiasm, curiosity, and optimism and who exert intense effort to achieve their goals. This doesn’t mean a teacher cannot suggest ideas of inquiry or have a say in the curriculum, but both students and teachers should be involved in a collaborative manner to determine curriculum.

Mitra’s (2006) work reinforces these same ideas. As part of a study, Mitra gave children in a rural town in India computers to play with. Initially, he thought the children would not learn very much due to barriers like language, the lack of a teacher, or previous knowledge. Mitra was surprised to find that these children were able to overcome language barriers and lack of any
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previous knowledge to use the computers in various creative ways. His findings demonstrate the
deep capacity children have to learn when they want to, even to the extent of learning complex
ideas without the aid of any teachers or extrinsic motivators.

Roles of a Teacher

It might be easy, based on Mitra (2006) or other student-centered ideas, to assume the
role of a teacher is minimal. Vygotsky (1978) on the other hand argues a teacher’s role is vital.
He believed knowledge is not merely constructed individually, but is created through social
interactions. He argued that learning could not be separated from the social context due to the
social and collaborative process. Vygotsky believed the learner's actual level of development
represented what a learner can achieve. The potential development or zone of proximal
development is the level a learner can achieve with the guidance of a teacher or through
collaboration with others ([GSITRC], 2016). Vygotsky's ideas express the valuable role of
having a relationship between teachers and students.

Freire (1972) in a similar way, called for teachers to become partners with their students,
to trust their students' creative powers, become students with them, and join together to truly
experience the humanization of education. The way to start is to "begin with the solution of the
teacher-student contradiction, by reconciling the poles of the contradiction so that both are
simultaneously teachers and students" (p.72). The intentional and conscious process changes
students; they are “no longer docile listeners” but “are now critical investigators in the dialogue
with the teacher (p. 81). This style of education asks students to be conscious, creative thinkers,
critically engaged with the world. Students come to see their relationship to the world and see
“reality as a process in transformation” (p. 83). Learning at this level is about “becoming” (p. 84)
and is an act of sharing. Open communication between students and teachers leads to a sense of community.

hooks (1994) believes this renegotiation of roles can create a community of those involved in learning in the classroom. A community is built by having an “interest in one another, in hearing one another’s voices, in recognizing one another’s presence” (hooks, 1994, p. 9) and realizing everyone has something to contribute. This change rejects the traditional idea that the teacher is solely responsible for what goes on in the classroom. hooks (1994) believes the effective development of a community comes from a belief that “intellectual fellowship and radical openness is the heart and soul of learning” (p. 205). What this looks like is knowing your students' names, spending quality time with students in open dialogue, having students write in journals and share, teaching this process through an example to students, and being willing to be vulnerable with students (hooks, 1994). hooks continues, saying a teacher should “not merely share information but share in the intellectual and spiritual growth of their students” (p. 13) and examine “how to live in this world” (p. 15). Some educators working in a progressive vein of education take the stance that they are empowering students. hooks disagreed with this model, she instead believed in a model of "working together on a project"(p. 152). hooks’ model is based on the notion that all involved should share responsibility for learning and have a voice in the matter. In the end, this sort of education requires “courage to transgress the boundaries that would confine each pupil to a rote, assembly-line approach to learning” (hooks, 1994, p.13).

John Dewey (1964) thought the student should be viewed as being “willful, purposive, curious, and active” (p. xxiv). The teacher should be a guide to help the students achieve their purposes and desires. The whole classroom, curriculum, and instruction should be centered on creating a learning environment to carry out students' purposes. Dewey argued, “education must
provide for the development of the individual and his participation in society. Education cannot
do this by neglecting individuality and by forcing rigid patterns of socially-approved behavior
upon him, for if it does, it will prevent him from being creative, and hence block the only avenue
for his eventual contribution to society” (p. xxi). All genuine education is liberating and certainly
needs freedom and discipline (p. xxi). A balance between societal needs and individual desire of
students is the balance needed in education (Dewey, 1964). In short, the teacher should become a
“catalytic agent” (Dewey, 1964, p. xxiv) in creating an educative learning environment that
values “the process, not merely the result” (p. 4)

**Application in the Classroom**

Larry Cuban (1984) described student-centered classrooms as places where students talked equal
to or more than the teacher, most instruction occurred individually or in small groups, and
students helped select what was learned and how they would learn it. The students were often
involved in determining rules of behavior and the consequences attached to not following those
rules. The supplies and classrooms were organized to permit students to work based on their
interests, often leading to students working in small groups based on common interests. Greer et
al., (1999) describe student-centered classrooms as having the right climate and interaction to
challenge ideas and push the understanding of students. The teacher’s primary role is to facilitate
students’ inquiry and provide adequate opportunities to challenge students to expand their
cognitive understanding. The teaching strategies can often be adapted to the needs of individual
students and their unique abilities. The environment allows students to test ideas in a safe
environment. The curriculum is built in a collaborative approach to address students' previous
knowledge, interests, and learning needs.
Criticisms

Student-centered teaching has its fair share of criticism. Klahr and Nigam (2004) argue student-centered teaching practices do not help students academically. Klahr and Nigam found students who were taught through more traditional methods had better educational outcomes like being able to transfer knowledge to new contexts and performance on standardized tests. While students who learned through discovery or constructivist learning showed no significant improvement in learning on the same standardized tests. Similarly, Kirschner et al., (2006) claim that “minimally guided instruction,” which they classify student-centered teaching, is likely to be ineffective and may result in students developing misconceptions and incomplete or disorganized knowledge.

In the 1970s, the open classroom movement was created based on student-centered theories. Larry Cuban (2004) notes the open classroom model has almost disappeared completely due to the strong criticism against it. Many of the detractors felt students were falling behind in academic abilities, creating a larger educational achievement deficit between the U.S. and other countries. This, in combination with a stagnating economy, led many to claim the open classroom model to be too loose, chaotic, and ineffective in meeting educational standards.

Even advocates of student-centered philosophies, like hooks (1994), acknowledge there are some innate challenges to this type of learning. In her book, Teaching to Transgress, hooks provided concerns a teacher may have with trying to implement a constructivist model. (a) If a teacher does not exert control, then chaos will reign and students won’t receive a good education if it diverges from the traditional model of education. (b) Students expect teachers to teach in the manner they are accustomed to. Ron Scapp, a colleague of hooks, in a conversation commented, “When we try to change the classroom so that there is a sense of mutual responsibility for
learning, students get scared that you are now not the captain working with them, but that you are after all just another crew member—and not a reliable one at that” (Scapp, as cited in hooks, 1994, p. 144). (c) Fear of losing one's identity due to the changes in pedagogical practice. (d) Informality in teaching is confused with a lack of seriousness. (e) Students will revert to being docile followers of arbitrary rules of behavior established as the norm as soon the teacher is not with them.

Postman and Weingartner (1969) add their caution to teachers when they “shift the intellectual burden” (p. 194) to students. These attempts may not be welcomed by students. According to surveys of students who were taught in this manner, most preferred teacher-centered methods of instruction and pushed against shifting the intellectual burden from the teacher to students (Downes & Groundwater-Smith, 1999). These surveyed students revealed their reason for disliking teachers who gave more autonomy to students was because it was just a way for teachers to do less work. The students felt the teacher was abandoning them, or in the words of one of the students, “Independence is all very well, but you need to be taught how to be independent and not just left to it” (Downes & Groundwater-Smith, 1999, p. 8).

Gage (2009) offers three basic reasons for teacher-centered pedagogies prevailing in public schools in America: (a) the conditions of schools, (b) flaws in reform, and (c) weak incentives for change. Gage found many teachers used a more teacher-centered approach because they felt it was the most efficient way to cope with larger class sizes, shorter contact time with students, and mandated curriculum and testing, while maintaining control and producing high results on tests. Teachers were more likely to have been taught in a teacher-centered model and were thus more likely to also teach in this style and without effective examples to follow, teachers stuck with what they were comfortable with.
Despite various attempts to introduce more student-centered ideas into the public-school system, teacher-centered techniques have continued to prevail in public schools. Cuban (1984) estimates that ninety percent of all teachers from 1890–1980 stuck with some form of teacher-centered practice. After observing over a thousand classrooms, Sirotnik (1983) remarked how ubiquitous the teaching and learning looked:

What we have seen and what we continue to see in the American classroom—the process of teaching and learning—appears to be one of the most consistent and persistent phenomena known in the social and behavioral sciences. To put it succinctly, the “modus operandi” of the typical classroom is still didactics, practice, and little else (p. 16–17).

This trend was especially strong in secondary schools. In a world of so much change, it is surprising to see that teaching practices have stayed relatively the same.

**Summary of the Problem**

The scholarship of Dewey (1964), Freire (1972), hooks (1994), Postman and Weingartner (1969) all criticize the traditional teacher-centered approach to education for the way students are viewed as objects to be controlled and told what to do, and the main thing students learn is to comply to authority. Michnick Golinkoff and Hirsh Pasek (2016) and Robinson (2015) similarly argue that education in a traditional teacher-centered manner will not train students for the changing world or help students gain the skills they need in the twenty-first-century world. At the same time, the scholarship of Cuban (2004), Kirschner et al., (2006), and Klahr and Nigam (2004) show the failures of constructivist or student-centered models.

The scholarship of Mitra (2006), and Postman and Weingartner (1969) suggest that students have a unique ability to learn when they have a motivation and desire to learn. Postman and Weingartner even acknowledge that traditional teaching methods may be used with positive
effect when the student initiates or welcomes the teacher to teach in that manner. The key idea is to create a culturally responsive education (Delpit, 1995) that embraces what students can bring to the learning process and treats students as collaborators.

The work of Dewey (1964), Freire (1972), hooks (1994), Postman and Weingartner (1969), and Vygotsky (1978) suggest the role of a teacher is important. Dewey summarized this well when he said the teacher should become a “catalytic agent” in students’ learning processes. The teacher's role is a tricky one of balancing the desires and motivations of students while also achieving the purposes of public education.

Based on the literature, I surmise there are two needs that must be met in order to achieve a successful teaching practice: (1) there must be a way to engage students and tap into their inner interests and motivation; (2) the teacher should have ways to remain engaged with students to ensure the academic and learning goals of the school are met. A collaborative approach between students and teachers seems to be the solution to answer both concerns.

**Leadership Models**

I extended the scope of this literature review outside of educational research to look closer at the literature regarding traditional leadership models. Although most of the research has been conducted outside of educational spaces, there is a significant amount of relevance between the traditional conceptions of being a leader with traditional teacher-centered education. Many individuals and organizations have begun to change the leadership model they were using to create a more collaborative leadership approach. Organizations have applied theories of motivation to their management to foster intrinsic motivation in their employees, yet still achieve their larger aims.
The first example is the story of Marquet (2012), a retired U.S. Navy submarine captain. When Marquet was made a Captain he was confronted with a problem; he was assigned to a model of submarine that he was unfamiliar with. As a result, he often felt his lack of knowledge made it difficult to make decisions. Marquet had to rely on his crew to help him, because they were more familiar with how the ship ran. This unique challenge sparked the beginning of a quest to change how Marquet viewed leadership.

Traditionally, leadership is seen as a top down model. Marquet originally thought “Leadership was the art, science, or gift by which a person is enabled and privileged to direct the thoughts, plans, and actions of others in such a manner as to obtain and command their obedience, their confidence, their respect, and loyal cooperation” (p. xxv). As he began to critically analyze his leadership style, he realized it was all “about controlling people” (p. xxv).

This model can be found in many organizations and permeates much of the rhetoric surrounding good leadership in business (Marquet, 2012). Top-down leadership came out of an era of physical labor and is thus “optimized for extracting physical work from humans” (Marquet, 2012, p. xxvi). Marquet discovered this style of leadership is not designed for intellectual, cognitive, decision-making demands found in the modern workplace. Even more problematic, success is closely linked to the efforts of the leader, meaning followers rarely engage fully and rely solely on the leader. Success under this style can be seductive because the success or failure is a direct reflection of the abilities of the leader (Marquet, 2012).

**Problems with Traditional Leadership**

One of the central problems with traditional leadership models is the leader is expected to motivate their teams through rewards or punishments. Ariely (2008, 2016) argued when the task is mechanical, external rewards or punishments work great, but if the task is cognitive it
hinders the person's ability to succeed. Pink (2009) points out that to achieve the same motivational results the rewards or punishments must be raised, making this technique more expensive and unsustainable. Pink gives seven deadly flaws of carrot and stick:

1. They can extinguish intrinsic motivation.
2. They can diminish performance
3. They can crush creativity
4. They can crowd out good behavior
5. They can encourage cheating, shortcuts, and unethical behavior.
6. They can become addictive.
7. They can foster short-term thinking (p. 59)

In the long run, Pink (2009) believes motivation that is built on creating autonomy, mastery, and a sense of purpose is renewable and long-lasting and promotes greater physical and mental health. Pink believes we have too much compliance and too little engagement in our offices and in our classrooms. Reward and punishment motivators are becoming more incompatible with how the world is organizing itself in the workplace, schools, and in life generally. Motivation that is driven to activate and engage intrinsic motivators will ultimately get you more and punishing will get you less.

**New Model**

Marquet felt the traditional model of leadership was a dangerous model, because his whole submarine crew relied on him as the leader to make their mission successful. Instead, he began creating a different model of leadership that treats each person in an organization as a leader and with an important role. Each crewmember could act with free will according to their expertise to carry out their job without needing Marquet’s approval. Some might call this
empowerment, but Marquet argues each person is born with the power to act already (Marquet, 2012). Marquet lists three useful ideas or pillars to doing this well. The first pillar is clarity or a thorough understanding of what the mission at hand is and each crewmember knowing their explicit role in carrying out the mission. The second pillar is competency, which is ensuring each person is capable of carrying out his or her role. The third pillar is control, allowing the crew to act autonomously in carrying out their mission using clear communication and collaboration to ensure each responsibility is met. These three pillars: clarity, competency, and control become the foundational ways to shift authority and responsibility in decision-making from leaders to all members of a team. This shift is significant because all members are engaged, have a unified vision, and have the competency to accomplish the goals of the team.

*Three Pillars of Intrinsic Motivation*

The three pillars Marquet (2012) used in his leadership sound very similar to the research of psychologists Deci and Ryan (1999, 2001, 2008) on human motivation. Deci and Ryan came up with the *Self Determination Theory*, which establishes three essentials that lead individuals to be motivated, productive, and happy people. The three essentials are competency, autonomy, and relatedness. This sort of motivation goes beyond primary needs and is more about engagement and motivation to bring fulfillment and meaning to life. Deci and Ryan found that when these three essentials were present in work or school spaces, individuals had greater understanding, better grades, better persistence, higher productivity, reduced burnout, and better overall well-being. Pink (2009), building on the work of Deci and Ryan, created his own three essentials to intrinsic motivation: Mastery, Autonomy, and Purpose.

**Autonomy.** Pink argues autonomy is “behaving with a full sense of volition and choice” (p. 90). Pink argues true autonomy is having control over four areas: task, time, technique, and
team. Autonomy does not mean there is no accountability or that people act alone. Individuals can still act with choice while depending on others. Autonomy places ownership and responsibility with the doer. Ariely (2008, 2016) has found the more individuals invest time or energy in a project, the more they value it. Autonomy hands the control to those who are the most involved, which results in people caring more and being willing to work harder. Put into an educational realm, the more students are involved in their learning, the more likely they will be to work hard, be self-motivating and managing, and more deeply value the knowledge they acquire.

Ressler and Thompson (2008) created a movement in the business world that is built on the idea of autonomy called Results-Only Work Environments. Ressler and Thompson believed employees should have full autonomy to decide when they work, where they work, and who they work with as long as the work gets done when it needs to be done. This sounds a little scary because some employees may decide not to come to work at all, but what Ressler and Thompson have found is employees of companies that do this are happier, more fulfilled, have greater loyalty to the company, and accomplish work resulting in financial profits.

If the Results-Only model was applied in an education setting, one might initially argue it would reproduce the kind of results Kirschner et al., (2006) and Klahr and Nigam (2004) criticized for being too chaotic and free. The Results-Only model works because the employees understand the job they need to do and have an accountability to achieve that job. In this manner, providing autonomy works.

Pink (2009) warns about false autonomy. Words like empowerment can be deceiving, because it can seem like the organization is allowing its workers to be autonomous, but on a foundational level, Pink argues it’s wrong because empowerment assumes the organization has
the power and benevolently gifts it to its employees (Pink, 2009). Pink challenges the assumption that without the supervision and prodding of supervisors, people would sit inert. Instead, he believes our default or natural state is one that is active and engaged. He says it is “to be curious and self-directed” (p. 89). Un-engagement is then a product of the environment or system. On a deeper level, true autonomy is about an effort to "reawaken their deep-seated sense of autonomy" (p. 89).

**Mastery.** The second pillar of Pink’s (2009) motivation theory is *mastery*. Pink defines mastery as “the desire to get better and better at something that matters” (p. 111). Normal reward or punishment systems of motivation require people to do specific things in specific ways or comply to one right way of doing things. To solve complex problems, Pink argues you need to be willing to experiment and have an inquiring-curious mind even through failures. Pink describes this sort of level of thinking as engagement and this engagement comes when a person has a chance to seek out mastery. Engagement in mastery is when people feel most fulfilled. Pink (2009) acknowledges mastery takes pain, effort, and painful practice in pursuing goals that can never really be achieved but are worth undertaking anyway.

The ideas of engagement and fulfillment relate to the work of psychologist Csikszentmihalyi. Csikszentmihalyi (2000) observed people having what he calls “autotelic experiences” which means the person enjoys a task purely for what it is. This enjoyment in a task is what we might call play. His work counters the mechanistic and survivalist motivational beliefs of people like Skinner and Freud (Pink, 2009). Csikszentmihalyi found there were times when people were so engaged, time seemed to slow for them. These moments, Csikszentmihalyi called *flow* or hyper-focus on one moment, almost like in a trance. Flow happens when a perfect
balance between what a person has to do to achieve their goal and what they can do is perfectly balanced.

Put into an educational setting, Csikszentmihalyi’s argument would suggest teachers should be able to determine the abilities of students to ensure students’ abilities are balanced well with tasks that are being asked of them. The task should be challenging enough to push students or have in place a structure like Vygotsky (1978) suggests to scaffold student learning.

**Purpose.** Pink’s (2009) final pillar is *purpose*. Purpose is being connected to a larger goal, which gives meaning for the struggle and work, or as Csikszentmihalyi said, “purpose provides activation energy for living” (as quoted by Pink, 2009, p. 134). Goals about improving life, learning, growing, and having policies attached to important values are the way for an organization to have a strong purpose. Pink contends purpose should be tied to “our deep-seated desire to direct our own lives, to extend and expand our abilities, and to live a life of purpose” (p.145). These types of goals contrast with goals that are about profits or test scores. Purpose is also attached to relationships.

In *The Human Side of Enterprise*, McGregor (1960) argues the general assumption that people need coercion through punishment/reward in order to be controlled is wrong. McGregor argues that people want to work and will even accept responsibility or even seek it when the right conditions exist. Pink discusses ways this can be done in an organization that has specific goals that need to be met. He says starting with the why, or the rationale for why the task is necessary, and acknowledging the task may be boring can help team members see why their work is important.

When applied to education, the purpose can be complicated. As was mentioned earlier, the purposes of public education are often disputed (Spring, 1991). In many ways, this connects
to the discussion on culturally relevant education and acknowledging the students’ voice, will, and desires. If the educational goals are not shared or valued by the students, it will be difficult to engage students in fulfilling the purpose.

Conclusion

The intent of this literature review has been to provide a context and framework to guide my research. Through the study of the various theories and histories of education, I have found I lean towards a constructivist view of learning. I can understand the criticisms that have been made towards the practical applications of constructivist theory. The challenge is finding a balance between having students direct their learning and still meeting the educational and academic goals of public education.

The goal is to create a teaching practice that uses student-led learning and teacher-supported learning strategies to direct the learning in my classroom. The resulting teaching practices were implemented in my middle school classes to assess the affordance or limitations of the teaching model.

Based on the literature, I chose the following tenets to build a teaching model on:

1. Students should be involved as much as possible in all aspects of learning from determining curriculum to assessment (Postman & Weingartner, 1969).
2. The emphasis should focus on students developing skills like communication, creative problem solving, critical thinking, collaboration, and how to think and learn for themselves (Michnick Golinkoff & Hirsh Pasek, 2016; Postman & Weingartner, 1969; Robinson, 2015).
3. The role of the teacher should be to facilitate, support, or guide students' learning to support them in being self-directed learners (Vygotsky, 1978; Freire, 1972; hooks, 1994; Dewey, 1964).

4. The teacher should find ways to individualize learning and build relationships with students (hooks, 1994).

Chapter 3: Methodology

In this chapter, I describe the reasons I used design-based research as the methodology for conducting my research. I provide a brief overview of the important aspects of design-based research. Afterward, I provide a rationale justifying the choice to use design-based research. The rest of the chapter details the data and how it was collected and analyzed. The final portion addresses my specific context, time frame, and procedures.

Overview of Design-Based Research

According to Anderson and Shattuck (2012), design-based research (DBR) is a methodology designed to improve the understanding of the impact and application of learning theories in educational practices. At times, educational research can be separated from the issues faced in every day practice (Plomp, 2007). DBR follows a systematic study of design, development, and evaluation of educational interventions such as programs, teaching practices, and materials (Plomp, 2007). Gallagher and Fazio (2017) further argued, “DBR methods seek to bridge the gaps between theory, educational research, and instructional practice by further understanding learning through developing or extending existing theory” (p. 3). As a result, DBR methods can address the common problem of educational research being separated from the issues faced in everyday practice (Plomp, 2007). DBR seeks to create new research approaches to solve the issues faced in practice, with the result being relevant applications.

The Design-Based Research Collective [DBRC] (2003) claims any researcher wanting to use design-based research as a methodology should adhere to the following criteria: (1) there should be a linking between theories of learning and research goals; (2) research should take place in continuous cycles of design, analysis, and redesign; (3) relevant and shareable theories should be generated to share with others; (4) the research should account for how the design
functions in authentic settings, documenting both successes and failures; (5) the development of theories and accounts of research should connect between the application and outcomes of interest. In addition to these criteria, Gallagher and Fazio (2017) believe the success of design-based research should be measured by its ability to improve existing educational practices, explore and create novel learning and teaching environments, develop theories and practices that are contextually based, and provide the possibility to further test the results in more clinical settings.

**Rationale for Selecting Design-Based Research**

There were two features of design-based research that led me to use DBR as my research methodology. The first aspect that stood out was the emphasis that is placed on applying theory in real education settings. Testing theoretical ideas out in a real classroom is one of the essential aspects of my research and it made sense to select a methodology that was created to do just that. The second aspect is the way DBR uses an iterative cycle of testing an intervention, analyzing results, adapting the intervention, and retesting. The iterative nature is a natural way to learn and adapt according to the knowledge that emerges through trial and error. Because I did not have an exact teaching model to follow, it seemed this methodology would allow me to try various iterations resulting in a better teaching practice in the end. Each of these ideas is discussed in greater depth in the next two sections.

**Real Situated Educational Context**

One of the unique qualities of design-based research is the emphasis paid to applying theory to solve problems in real educational spaces. Anderson and Shattuck (2012) argue that DBR, like other applied research methodologies, places an emphasis on using research to find solutions for practical problems. In addition to solving practical problems, Barab and Squire
(2004) believe one of the distinguishing features of DBR is the emphasis of applying theory. Barab and Squire said:

Design-based research is concerned with using design in the service of developing broad models of how humans think, know, act and learn; that is, a critical component of design-based research is that the design is conceived not just to meet local needs, but to advance a theoretical agenda, to uncover, explore, and confirm theoretical relationships (p. 5).

Anderson and Shattuck (2012) feel theoretical frameworks like constructivism can be valuable to educational practice, but do not provide a clear-cut way to apply their ideas to teaching practice. DBR delivers a systematic approach for teachers to try various applications of a theory, like constructivism, in their specific context and discover the benefits or limitations of that theory. At times, educational research has been criticized because the research is “often divorced from the problems and issues of everyday practice – a split that resulted in a credibility gap and creates a need for new research approaches that speak directly to problems of practice and that lead to the development of ‘usable knowledge’” (Plomp, 2007, p.). In the end, context matters, and without considering the natural setting, incomplete or irrelevant knowledge will be generated.

**Multiple Iterations**

Design-Based research uses an iterative and cyclical process. Reeves (2006) provides a helpful visual graphic illustrating this process (see figure 1):

*Figure 3.1. Reeves Design-Based Research Model (Reeves, 2006).*
The model Reeves presents establishes a process for researchers to generate theory in authentic settings as the researchers adjust and test various aspects of the research design (Plomp 2007). Plomp (2007) defines DBR as a way to “design/develop an intervention to solve a complex educational problem and to advance our knowledge about the characteristics of these interventions and the processes to design and develop them” (p. 12). DBR allows teachers or researchers to adapt activities to meet the needs of particular classrooms, and through the iterative research cycle discover, understand, and better implement teaching practices to enhance the learning environment ([DBRC], 2003). The one downside of the DBR model is the iterative aspect of the research process can exceed the available time or funding (Anderson and Shattuck, 2012). The iterative nature can become a never-ending cycle because there can always be more to discover and learn.

One problem design-based research can help with is the difficulty teachers may face determining their role in learning. Brown (1992), who is considered to be the creator of DBR, posed the following questions, “How should teachers be, when should they guide, when should they teach? When should they leave well enough alone? In short, how can teachers foster discovery and at the same time furnish guidance?”(p. 169). These questions illustrate the fine line a teacher treads when trying to understand their role in learning. The teacher needs to be able to assess the readiness of their students and select appropriate interventions for the needs of their students (Brown, 1992). The needs and readiness of students can change from day to day, necessitating a teacher who can assess and adapt accordingly. For this reason, DBR is useful because it emphasizes action and reflection to find solutions to aid students in discovery learning.
Data & Collection Methods

The data that was collected for this research came in three forms: my journal/field notes, student-written responses based on prompted questions, and photographs of student artworks and student artist statements. Journals, field observations, and photographs are normal and accepted forms of data in design-based research (Saldaña, 2013). Gallagher and Fazio (2017) believe that one of the crucial parts of DBR is to document what the participants were thinking and experiencing throughout the research process.

Field Journal

I selected journaling as a way to document my day-to-day experiences in the classroom. Pine (2009) writes, “journals are teachers’ written accounts of classroom life over time, including records of observations, analyses of experiences, and reflections and interpretations of practices” (p. 51). To be more specific, I used the field journal to write observations, reflections, and impressions I had while implementing student-led and teacher-supported strategies. I tried to keep notes on things like the engagement of students at various times, comments students made, and frustrations or failures I perceived during class. To summarize, I tried to note the various affordances or limitations that came up during the research.

Student Reflections

One of the concerns I had with the research model was how to ensure students had a voice. hooks (1994) believes the accounting of what happens in a room should include both the students’ experience and the teacher’s. I wanted to ensure students’ views were not overlooked during the research process. The model used in participatory action research provides participants power and voice by including them in the research process (McDonald, 2012). By including participants in research, Mcutchen and Jung (2009) felt researchers could truly get a
complete understanding of an educational practice and its effectiveness because all involved were represented. Including participants can also be a way for teachers to collaborate with students and acknowledge the innate power students have over their lives. Downes & Groundwater-Smith (1999) claim collaborative research can lead to students, “who are engaged with their learning, exhibit enthusiasm, optimism, curiosity, and interest. Willing to exert intense effort and concentration and will select tasks which challenge and intrigue them” (p. 2). Many of these outcomes are the kind of outcomes I was seeking to foster by implementing student-centered learning strategies.

Although the research methodology I used was not participatory action research, I wanted to ensure students were involved and had a way to represent their views. By collecting data in the form of student journals and short reflective responses, I hoped students would share the perspective they had during the implementation of student-led and teacher-supported strategies. I wanted to compare their experiences with mine and see if they were similar or different. To guide students, I provided various questions or prompts that focused their responses to address various aspects of the research model. For example, I asked students what challenges they saw in guiding their own learning. The students listed various challenges, which I was able to analyze and use to adapt my lessons to help students be self-guided.

*Photographs of Student Artwork*

Gallagher and Fazio (2017) argue the use of student work as artifacts of students’ learning is an acceptable form of data in design-based research. Student artworks can provide another tool to determine what kind of skills and abilities students have developed. Combined with artist’s statements, they can act as good indicators of the kind of engagement and ownership students applied to their learning.
Role of Data

I selected these three methods as a way to document and understand my experience in implementing a new teaching practice and curriculum, while also being able to see what students' perspectives were. The photographs of students’ art represent the product of their learning and, for me, have always been one of the important fruits to look at to assess the learning experience. Between the three data sources, I hoped to see the whole picture, to have a more in-depth understanding of the affordances and limitations of using student-led and teacher-supported strategies in a middle school classroom.

The data and collection process also played a significant role in the iterative cycle process. Data was collected using the three forms listed above. Based on the data, I analyzed themes, issues, and areas that the teaching/learning model could be improved. I then made changes or implemented interventions and started the cycle again. The data collection was vital in this process.

Data Analysis

I used the constant comparison analysis model to guide my analysis. Constant comparison analysis uses a model of coding to identify underlying themes throughout the data. The process begins by a researcher first reading through the entire set of data, then breaking the data down to essential sections, and then labeling or assigning a code to describe that section of data. Finally, the codes are grouped and compared to look for patterns and themes (Leech & Onwuegbuzie, 2007). Starks & Trinidad (2007) explain the process of coding as a process of interpreting data and assigning a phrase or keyword to summarize the event or phenomena. Through analysis of these codes, patterns emerge, showing central themes and relationships across the various data sets and narratives. In contrast, classic content analysis uses coding, but
the researcher counts the use of each code to see which codes have the highest frequency (Leech & Onwuegbuzie, 2007).

Saldaña (2013) believes the primary goal of coding is to discover patterns and consistencies in the data. Patterns and themes arise through the process of reflection and analysis, which occur in a cyclical process in DBR. Saldaña believes, “When the major categories are compared with each other and consolidated in various ways, you begin to transcend the “reality” of your data and progress toward the thematic, conceptual, and theoretical” (p. 11). As themes emerged, I used this information to alter the teaching/learning model to try and produce better results. The ultimate goal was to find a teaching/learning model that engaged students in their learning and provided a way for me to still have influence in determining student learning outcomes to ensure academic and educational goals were being met.

Saldaña cautions researchers to be aware of the inherent impact of their subjectivities, personality, predispositions, and how these can impact the analysis process. Just like in everyday life, Corbin and Straus (2008) argue using comparison analysis is a way to think differently to see possible meanings, and it can be especially valuable when researchers may be confused or stuck about the meaning of the incident in the data. Hatch (2002) beautifully summarizes this process:

Data analysis is a systematic search for meaning. It is a way to process qualitative data so that what was learned can be communicated to others. Analysis means organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories. It often involves synthesis, evaluation, interpretation, categorization,
hypothesizing, comparison, and pattern finding. It always involves what Wolcott calls "mind work"...Researchers always engage their intellectual capacities to make sense of qualitative data. (p. 148).

**Research Model**

As mentioned before, the intention of this research was to test the practicality of learning theory in a public middle school art setting by introducing more student-directed and teacher-supported learning strategies. The various learning strategies and iterations of the teaching model implemented were derived from constructivist theory and scholarship on the intrinsic motivation. Based on the literature, I chose the following tenets to build my research model on:

1. Students should be involved as much as possible in all aspects of learning, from determining curriculum to assessment (Postman & Weingartner, 1969).
2. The emphasis should focus on students developing skills like communication, creative problem solving, critical thinking, collaboration, and how to think and learn for themselves (Michnick Golinkoff & Hirsh Pasek, 2016; Postman & Weingartner, 1969; Robinson, 2015).
3. The role of the teacher should be to facilitate, support, or guide students' learning to support them in being self-directed learners (Dewey, 1964; Freire, 1972; hooks, 1994; Vygotsky, 1978;)
4. Teachers should find ways to individualize learning and build relationships with students (hooks, 1994).
Students and Recruitment

The point of the research is to improve my teaching practice by collaborating with students in order to find a practice that accomplishes the goals listed above in a way that is satisfying to all involved. The inclusion of my students was necessary for my research. Participants in my study represent the diversity of student body I routinely see at my school. Because I was asking students to be participants in the study, the initial contact happened in class. To avoid students feeling coerced by me as their teacher, I had an administrator or colleague read the recruitment material (see appendix), send the material home, and have the forms collected by the secretary in the main office of my school. The names of those participating were given to me at the end of the study, so I did not know who was participating in the study, thus allowing me to treat all students the same. At the end of the data collection period, I analyzed and used the data of only those participants that consented.

Implementation

The implementation process began by inviting students to direct their learning by selecting an art-related theme or inquiry to investigate during the semester. The goal was for students to select something meaningful, interesting, or relevant to them personally. In this way, students could choose what to learn about, have more ownership, be more excited, and reduce the need for me to tell them what to do. The students' theme or inquiry became the basis of an individual project, which students worked on throughout the semester.

One school day, every other day, was reserved for students to work on their individual themes or inquiry. On these days, students were autonomous over how they worked and learned. My role on these days was as a facilitator where I worked one-on-one with students. On the other school days, when students were not working independently, they were guided by me. My role
on these days was much closer to a traditional style of teaching. I selected the lessons and activities for my students, but I tried to select topics based on the needs or requests of students. The goal of these days was to build the competency and skill base of students to increase their abilities to be autonomous on student days.

By structuring my teaching practice this way, I hoped to create a hybrid approach to learning. Half the time, students were expected to guide their learning. Students were treated as capable, intelligent, active learners. As a result, I hoped students would learn how to learn, think for themselves, overcome failures, be creative, and have more ownership of the learning process. I also hoped my role as a teacher would become one of facilitator and collaborator with students. I maintained some control over the days I directed to try and ensure students were meeting certain standards and to provide a way to help students develop their competency. As I worked in this way, I hoped my students and I could work in an interactive and scaffolded approach embedded in a social context while avoiding the failures other teachers experienced when using student-directed models.

Daily Procedures for Collecting Data

Each day, my students and I kept a research journal as part of the study. In this journal, participants reflected upon their experiences in class and wrote down their thoughts regarding the implementation of student-led and teacher-supported learning strategies. At various times, participants were given a prompt to guide their reflective thinking. The student journals were labeled and returned to each student after the course/study. Identifying information was not used in published materials.

As part of regular teaching practice, I conducted informal interviews with my students as part of a standard analysis of my teaching and student learning. This project continued to use
informal interviews based on individual student responses, questions, and needs. I recorded these conversations and observations in my research journal during class or at the end of the day.

I set up space in my classroom for documenting artworks through photographs. Part of this set up included lights and backdrops to create a more professional atmosphere. Periodically, students or myself documented their art and stored the digital files on our class computer. These photographs were collected and analyzed at the conclusion of the data collection portion of my research.

**Timeline**

- **August 15–16, 2019:** Initial recruitment took place in my classroom by an administrator or colleague.
- **August 19–20, 2019:** Implementation of the studied curriculum. Students began creating their art propositions.
- **August 26–17, 2019:** Students began working independently on their proposition projects. I began working one-on-one with students and documenting needs or other notes in my field research journal. Students also began writing reflections in their research journals.
- **August 28–29, 2019:** I began teaching workshops, demonstrations, etc. which corresponded to the needs of students.
- **September 3–4, 2019:** Consent & Assent forms were returned to colleague or administrator.
- **September–December, 2019:** Through these months, I collected data, and analyzed and made needed adjustments to the curricular model as part of the design-based iterative research model.
• December 16–17, 2019: Participants completed a reflection questionnaire.
• December 19–20, 2019: End of data collection.
• December 20, 2019–January 31, 2020: Analyzed participant research journals, photographs, my research journal, and questionnaires. The journals were returned to participants at this time. The photographs were kept, but the actual artworks were returned.
Chapter 4: Analysis

There were four research questions at the center of this study: (1) What existing literature addresses student-directed learning? (2) What is the relationship between student-directed learning and motivation? (3) How does a higher level of student motivation impact classroom management? (4) How could these existing theories addressing student-centered learning and motivation be applied in my own middle school art classroom?

Based on the literature, I used the following tenets to develop a curricular research study within my middle school classroom:

1. Students should be involved as much as possible in all aspects of learning, including determining curriculum and assessments (Postman & Weingartner, 1969).

2. The emphasis should focus on students developing skills like communication, creative problem solving, critical thinking, collaboration, and how to think and learn for themselves (Michnick Golinkoff & Hirsh Pasek, 2016; Postman & Weingartner, 1969; Robinson, 2015).

3. The role of the teacher should be to facilitate, support, or guide students in becoming self-directed learners (Dewey, 1964; Freire, 1972; hooks, 1994; Vygotsky, 1978).

4. Learning should be individualized and provide opportunities for the teacher to build relationships with students. (hooks, 1994).


As part of this curricular teaching experiment, I provided students with a day to guide their own learning. I wondered if students would be more engaged and have a more meaningful
experience if provided with space, materials, and time to guide their learning. I was also excited to know what would happen if students were given full autonomy from the beginning of the research study, even though it meant some students might have little experience to guide them. I envisioned students who were typically unengaged before and wondered if being autonomous would help them become more intrinsically motivated.

The second part of the research model provided a day for me to direct the learning of students. The planned teacher instruction days were meant to be a countermeasure to the student-led, minimal teacher guidance on the other days. Even though I was in charge of what happened on teacher-led days, I worked with students to determine what lessons would be most useful. This was accomplished by asking students what lessons they felt were needed to progress in their own inquiries and by assessing general concerns that emerged through the evaluation of student artworks.

The following chapter comprises the results of the study and the accompanying analysis. I share data and analyze the findings in context to the broader goals of the study (listed above) and discuss how the results fit within the literature.

**Findings: Iteration Cycles**

Over a semester, I conducted four iteration cycles using the design-based research model. Each iteration lasted for ten seventy-minute class periods over four weeks. The goal was to maintain the basic model of instruction, which provided students a day to direct their learning, alternated with a teacher-led day. Through the successive iterations, aspects of the model were adapted to address concerns regarding student outcomes like engagement, motivation, and classroom management.
Iteration 1

At the beginning of the semester, I explained to my students the research and questions I was investigating. I shared with students the goal to find ways for them to have more participation and control in determining how they learn and what they learn about. There were three activities we did over several class periods: (1) My students and I read the state standards for middle school art classes and worked together to clarify and summarize the expected learning outcomes and discussed ways to accomplish the expected outcomes. (2) We looked at student examples from the previous year and discussed what made the pieces interesting and successful or dull and unsuccessful. We determined that successful projects had an authentic, meaningful, and personal idea that involved effort, craftsmanship, and time put into the work that showed significant exploration and development of ideas. These observations became the criteria to assess the success of the students' individual projects. (3) We also looked at activities, values, and beliefs that were important to each student that could serve as possible themes to investigate through art-making.

My students and I created a set of criteria to determine the success of the learning or art-making based on these activities: (1) there should be a theme or inquiry that is authentic, personal, and meaningful. (2) The craftsmanship and quality of the art should reflect the student’s best effort and ability. (3) There should be a significant amount of work produced to show the exploration and development of the theme. In addition, I added my own indicators to determine the motivation level of my students, including: how students utilized their time in class, student engagement and comments, and whether students required external motivations to direct their behaviors.
The first iteration tested the basic teaching model, which consisted of students directing their learning one day and then participating in teacher-directed learning activities the next day. On student days, I worked one-on-one with students, facilitated students in their individual art inquiries, and identified potential topics for future lessons based on students' needs and interests.

**Results and Analysis.** The students and I documented our reflections throughout Iteration 1. Based on the responses collected from the reflective journals of students, I found that almost every student loved being able to choose what to make art about. Statements like, "I like how we have a free day then a learning day" or "there is a lot of freedom in this class compared to my other classes" were typical. I was not quite sure how to interpret these responses. What was behind the students' responses? I wondered if students were saying they liked their individual days because it was easier than normal teacher-directed learning. A significant theme emerged through the process of coding and interpreting the data—students were describing the learning they had experienced in other classes compared to the learning experienced in my class.

One seventh grade student wrote in his journal about an experience in elementary school. He said his elementary school art teacher would select a project or theme, choose which materials could be used, and provide step-by-step instructions. Each student was expected to follow the instructions of the teacher and each student's art piece was expected to look just like the teacher's example, and if it did not, the student had not done a good job. Another student described a similar experience. She remarked, "I like that we can make more of our own styled work instead of preset painting. Unlike elementary school, you can make anything you want."

Another student said, "This is better because we the students were able to choose what we wanted to do and not always what the teacher said." What do these student responses say about education and learning?
Pink (2009) argues one of the most fundamental desires is to direct our own lives. This explains the overwhelming response of students' preferences for freedom and control over their lives. In addition to the desire to lead their lives, students want to make art that is personal and not a replica of someone else’s art. Ariely (2008) found when individuals spent more time and energy in an activity, for example, building furniture or making art, they valued the objects they made more. Ariely discovered the value of ownership.

Returning to my students’ comments, students valued the learning experiences they directed more than the learning experiences led by their teachers. The teaching practices students explained, including guided practice, modeling, and sequential learning are similar to the practices associated with a teacher-centered model of teaching (Fosnot & Perry, 2005; Freire, 2000). I recognized some of the same teacher-directed methods I had used in the past, but now I was hearing how students felt about art projects generated by a teacher. One of my eighth grade students summed it up best when she said, "I like being able to make what I want. I feel I am more engaged in my learning because someone isn't telling me what to do all the time. I can be more interested in the thing I am doing because I chose it."

Some students adopted the self-directed teacher-supported model right away and were able to develop a personal art inquiry that was authentic and meaningful. The students’ work suggested honest effort, even when the results or craftsmanship may not have been the best. As evidence, I will share some of the artworks and experiences of students.

Positive Student Outcomes due to Autonomy. Annalisa was one of the students that thrived in an environment allowing her to guide her own learning. Annalisa moved to Utah at the beginning of the school year from Central America. Consequently, she was still learning English, but even with this challenge, she excelled. She was one of the few students that embraced using
her sketchbook to sketch and brainstorm ideas for her project. One day, Annalisa brought her ukulele to class and told me she wanted to create a model replica of it as an artifact that represented her culture (see figure 4.1). She sketched her designs, meticulously cut out cardboard pieces, and began assembling her replica. As she was assembling the pieces, she ran into a problem trying to join the stem to the base of the ukulele. At this point, she came to me and said she needed help. As she explained the problem, I asked a couple of questions about her process, and then she got excited and said, "I figured it out, now go away." Throughout the class, Annalisa worked independently most days. She never needed to be prompted to know what to make. Her success in guiding herself established my role as a facilitator and supporter when she had occasional questions about certain techniques or materials. Annalisa thrived because she had the autonomy to make and explore and didn’t allow lack of skills or competency to hinder her. These skills seem evident in the way she navigated a new school system and country as an English-language learner.

*Figure 4.1. Annalisa’s Ukelele.*
Jaxton was another student that excelled in guiding his learning. From the beginning of the class, Jaxton began making symbolic paintings based on various aspects of his life. One of the first paintings he made represented how he felt about technology. He shared how he often felt like he and his friends were too plugged into technology. He tried to create a piece that showed this (see figure 4.2). In another painting, Jaxton described how he was experimenting with different techniques, "I would grab a sponge and put multiple colors to create a cool blurry effect." The piece he was making was about death and mystery, and he wanted to use the blurry effect to enhance the mysteriousness (see figure 4.3).
With both of these student examples, there were technical aspects that could be improved, but overall the pieces were interesting and personal. Students like Jaxton and Annalisa were able to meet the criteria we had established to guide independent work. For them, the model worked, and they were able to produce artworks that met our criteria of success and the state standards. In addition, they were able to guide their own learning and develop the learning skills that fulfill the larger purposes of the school.

**Beneficial Relationships with Students.** Part of the analysis process was to analyze what parts of the model worked and why. One of the successful aspects of this model was the way I was able to work one-one with students. As I reflected on the journal entries, I noted the occurrence of times I felt happier as a teacher due to the implementation of the research model.
Looking closer, my happiness level was often associated with the days when I was able to adapt my teaching to address specific student needs. For example, being able to find examples that connected with my students’ projects and being able to share what I’d found. Prior to this research, I had not comprehended how important it is for me to work on a personal level with my students.

Based on student reflections, students also benefitted from the one-on-one attention. One student commented, "It feels like you really care about me when you talk to me one-on-one." Another student stated, "I like the one-on-one interaction because I know what I am doing wrong and then can fix it to make my project better." Giving each student specific, individual feedback that may not have been applicable to the whole class was especially beneficial. One of my students shared a similar thought. She said, "I think it is constructive because everyone can have a different project, and so it is helpful because if you give advice to the class, it may not help some people or be what they need." Many students expressed working with me individually helped them improve and expand their abilities without being forced to follow a preset outcome.

hooks (1994) and Friere (2000) both emphasize the importance of having an open and mutual relationship with students. Relationships are crucial to building a community and are vital in modeling to students how to learn. Dewey (1964) shared the belief that a teacher's role is essential in the education of students. He felt the role of a teacher should be a catalyst that starts the educative experience for students. I came closest to this when I was helping students on an individual basis because I was able to tailor my response to the specific needs of the student. One student described this type of interaction in their journal by saying, "I like getting a second opinion on my work and being able to see things that I hadn't noticed before. I like that you give a bit of instruction and leave it up to our interpretation."
The following interaction I had with Lily is an example of the way one-on-one relationships benefited student learning and art-making, as well as my teaching practice. Lily was one of the honors art students who embraced directing her learning. She initially expressed feeling more comfortable having more constraints given her, but saw the value in guiding in her own work. Lily began by focusing on her interest in ballet by using old newspapers and images of famous ballerinas to create multimedia collages (see figures 4.4, 4.5, 4.6). As Lily and I talked about her ideas and her work, I would keep notes on important ideas or artists that might be beneficial to her. One day, I found some artists online that seemed to be in dialogue with the work Lily was doing. The next day, I showed her the art I had found and told her they reminded me of her ideas. Later in a reflection, Lily said these one-on-one interactions meant a lot to her and made her feel like I really cared about her. We were able to discuss more ideas and technical processes as we looked at the various artist examples together. I was energized by the way my teaching was directed to the specific needs and interests of Lily. It made me feel more effective as a teacher.

Figure 4.4. Lily’s Ballet Collages #1
Figure 4.5. Lily’s Ballet Collage #2

Figure 4.6. Lily’s Ballet Collage #3
As Lily progressed through the semester, she had developed a new interest in using shapes and colors in her art, which resulted in a new series of small square paintings that were eventually pieced together into one substantial piece of art (see figure 4.7).

*Ingrained Behaviors.* Another theme that emerged through the analysis of data, was that students have ingrained habits of relying on a teacher. The following narratives and observations were made as I began to implement more student-led learning in my class: One of my honors art students was visibly frustrated in class on a student-directed day. I privately asked her why she was frustrated. She replied, "I thought you were going to give us assignments instead of making us think of our projects. I don't know what to do, and I want you to just tell me what I should
do." This student was not alone. Comments like, "What is the assignment?" or "What should we be doing?" were common. Even after several student-directed days, I had a student incredulously ask, "Can we really make whatever we want?" Many times students approached me with their art and asked me to tell them if it was good or would ask, "Does this count?" What do comments like these suggest regarding ownership and responsibility of learning?

Postman and Weingartner (1969) make the argument that how something is taught is more important than what is taught, because students will learn from what they experience. Using these ideas to analyze my students' experiences, their behaviors and responses are indicative of the environment they learn in. Most of these students were expecting me to tell them what to do and to assess whether their work was good. For these students, the learning responsibility was supposed to lie with me, not them. Gage (2009) and Cuban (1984) claim most teachers use a teacher-centered model, and it does not seem unreasonable to assume my students have mostly experienced teacher-centered education. The perceptions and habits formed from teacher-centered culture proved to be embedded in my students and was difficult to change quickly.

Lack of Previous Experience or Knowledge. Although there was some success in students directing their own learning and producing meaningful artworks, the analysis of the teaching/learning model showed this was not effective for the majority of students, especially students in the 3D design classes. The themes in the data suggested the lack of previous knowledge and materials management were a significant challenge. My field journal had many entries regarding the challenge of students wasting materials, misusing materials, and stocking enough material for the number of students I had. Pulling again from my field journal, I wrote about the students' lack of experience, "So many students seemed lost coming up with ideas for
their projects in the 3D design classes. Mostly it seems they have no clue what 3D art is or how to do it. How can they be self-directed when they do not know anything?" The following story demonstrates the challenge of students being self-directed while also having a lack of previous experiences: On a student-directed day, a student asked to use a Xacto knife. He explained he needed a knife for the project he was working on. I wanted to let the student use the knife and support his self-directed learning, but was hesitant because I wanted to make sure the student knew how to use the knife safely before handing it to him. Many of the 3D design students' reflective journals also shared the frustration of being limited by a lack of previous experience. One student wrote, "I am prevented from being successful by just not knowing what to do." Another student wrote, "I wanted more examples. Not knowing what to do or how to do it was my biggest challenge." The common element was the lack of knowledge or experience.

Marquet (2012) claims that having experience and a certain level of competency is essential to individuals having successful experiences with autonomy. Marquet's claim was based on his experience as a submarine captain in the navy. He found it was vital that each member certify a level of competency and an understanding of their role in the mission. Similarly, Csikszentmihalyi (2000) suggests, "flow" or high engagement comes when a challenge is appropriately balanced to push a person just enough to expand their ability. Still, the demand cannot be too far from the current capability or as Vygotsky (1978) would describe, zone of proximal development. The responses of my students suggested the demand being asked was too far from the abilities and experience they had, leaving them frustrated.

**Conclusions from Iteration 1.** Based on the criteria my students and I set up at the beginning, students were struggling to create work that was meaningful or authentic, the work lacked craftsmanship and effort, and students would make one attempt and then give up. Based
on the observations and evaluations I made in my field journal, I estimate about 75% of my students were not meeting the success criteria for art-making and being self-directed learners at this point. The student artwork and the responses of students reminded me of some of the criticisms of student-centered learning. One of the chief complaints against student-centered learning is that it’s too free and does not teach students the standards needed to achieve desired learning outcomes due to a lack of structure (Cuban, 1984; Gage, 2009;). Kirschner et al., (2006) go further by claiming minimal instruction techniques often leave students with incomplete development, misconceptions, and disorganized knowledge.

Even worse, many of the students became bored and unengaged, leading to more disruptive behaviors like messing around with materials, throwing things, playing games, and hanging out with friends. The more students that became off-task, the less I was able to work one-on-one with students, because I felt obligated to stop the disruptive behavior. I was then presented with the challenge of not wanting to tell students what to do and needing to find something for students to be engaged in.

Looking more closely at the themes and their implications, I realized I was asking students to learn and perform in a system of learning that goes against how they have learned most of their lives. I was also asking students to use artistic methodologies without certifying students were competent. I provided autonomy to students but without the prerequisite knowledge that would help them know what to do with the autonomy. Gage (2009) and Cuban (1984) suggest most students in public education have only experienced teacher-centered teaching. The students who were struggling didn’t know how to direct their learning or were trained to rely on a teacher to tell them what to do. Without doing more to develop skills and necessary competencies in both artistic practices and self-directed learning, students were failing.
Pure autonomy was not the way to help the majority of students become more engaged and self-motivated. The model needed to be adapted to address the failures that came from providing too much autonomy. Would students have enough skills and knowledge to guide their learning and meet the desired outcomes if I helped them build a certain level of competency in artistic practices and materials?

**Iteration 2**

The challenge in iteration 2 was to continue the success working one-on-one with students and allowing autonomy for those students that were ready and capable, while also helping students gain more skills and competency in artistic practices resulting in a base level competency. I followed the basic format used in Iteration 1, but changed the order of the days to teach skills or processes to students before providing autonomy on student-directed days. I wondered if starting with a teacher-directed day that focused on developing competencies in artistic techniques and processes would result in students achieving the desired outcomes in their art production and learning.

As mentioned, part of this intervention emphasized specific skills, materials, and techniques students could use to explore their personal inquiries. For example, in my 3D design classes, I showed students how to use Xacto knives safely while using various carving applications with cardboard and paper. Students practiced the techniques on the day I directed, which allowed me to determine if students understood the basic techniques. Students were then provided autonomy to guide their learning on the non-teacher days. During another lesson, I taught methods an artist could use to gather, easily reproduce, and enlarge imagery. I taught my students how to use graphite transfer techniques, tracing tables, and projectors. The students and I experimented with ways these techniques could be combined to enhance and expand their
thinking regarding their themes or inquiries. See figures 4.8, 4.9, 4.10 to see examples made by students or me during this process.

*Figure 4.8. My example of Layering*

*Figure 4.9. Peter’s Character Blown Up to Life Size*

*Figure 4.10. Claire’s Piece That Combined Multiple Pieces Together*
Results and Analysis. The data indicated that starting with an instructional day followed by a student-directed day had some positive outcomes regarding both students’ ability to direct their learning and their artistic production. One student explained why they liked this model, "I love this class and the way we do things, it's what I look forward to every day. I like how you teach us things and then let us explore the things we have learned." For this student, the learning became more engaging when they had specific things to experiment with. The engagement came not just from the content introduced by me, but also from the student's experimentation in their own inquires. I did not dictate how to use these skills, but allowed students to use the learned skills for their own purposes. Although the learning looked more like a traditional class on teacher-directed days, it enabled some students to function more autonomously on individual days.

Success of Implementing Artistic Skills. Hazel had a go-getter approach to art-making. She was very receptive to my teaching based on her willingness to explore and use the skills that were part of the lessons. As a result, her progression and change in her artworks were impressive. For her individual work, she began by making lots of images of horses because it was her favorite thing. Slowly, her art began to incorporate more experimentation and incorporated small parts of the lessons I taught. For example, I had my students respond to and reuse old artwork left behind by past students. In response to this, she began cutting, combining, and altering the old pieces to create new images. I never explicitly told her to do that in her individual work, but she chose to do it on her own. She benefited from my knowledge and influence, but was able to determine her own approach to her art making. See figures 4.11-4.17 to see the progress of Hazel's art.
Figure 4.11. Hazel Progression Image #1

Figure 4.12. Hazel's Progression #2

Figure 4.13. Hazel's Progression #3
Figure 4.14. Hazel’s Progression #4

Figure 4.15. Hazel’s Progression #5

Figure 4.16. Hazel’s Progression #6
There were students that struggled in Iteration 1 that benefited from the new focus placed on first developing skills and artistic processes and then experimenting with the new knowledge. After implementing this model and analyzing the data collected, the number of students who were directing their learning, producing meaningful and authentic art, and putting in effort and time to investigate their personal inquiry rose from about 25% of students in Iteration 1 to about 50% of students in Iteration 2.

**Student Challenges.** A pattern continued of students trying to place the ownership and responsibility for learning on me, similar to the results discussed in Iteration 1. In Iteration 1, a significant number of students said they did not know what to make or do on their individual days. This theme continued, despite changing the model. On student-directed days, I was going from one student to the next to help them develop a theme or idea. Up to this point, students had
still not developed a clear purpose or inquiry to investigate in their art-making. They would make
random pieces of art that lacked a cohesive theme. I was trying to brainstorm with each student
to find ideas that would motivate and engage them. Another problem arose when I would make
suggestions and students would treat them as assignments.

Kaiden often struggled to come up with ideas for work he wanted to make on his own. As
I walked around the class, I noticed he often sat and did nothing during class. When I talked to
him, he would say, "I don't know what to make." We would talk about ideas, things he was
interested in, and he would pick something from that conversation and do it. But once that
project was finished, it was the same thing again. He functioned best when responding to
constraints provided by me or when he had an example to work from (see figures 4.18-4.20). In
figure 4.18 and figure 4.19, Kaiden saw an example flexagon I had on my shelf and wanted to
learn to make it. He and I worked step-by-step to create the flexagon and then he added the
coloring on the outside. I found the shape on an aesthetic level to be interesting, but it does not
demonstrate much beyond what the original model looked like. As this model continued, I
noticed the responsibility for the learning fell on me as the teacher. If I suggested anything, he
would do it. If he failed, he would comment, "I did the assignment." He was willing to work and
honestly wanted to succeed; he just struggled to make decisions for himself and to generate his
own ideas. In Figure 4.20, Kaiden had his most creative art piece, which was in response to a
design challenge I created to make a container or bag for a company of his choice.
Figure 4.18. Kaiden’s Work That Was Modeled After My Example

Figure 4.19. Kaiden’s Work That Was Modeled After My Example #2

Figure 4.20. Kaiden’s Custom Box to Ship A Skate Board In Response To The Challenge To Create An Original Shipping Container or Bag.
Miriam was a conscientious and hardworking student. Her failure with the model was not because of a lack of trying, but a lack of ability to apply what she learned on teacher-directed days to her individual work. The quality of paintings stayed the same from the beginning to the end. Her paintings often felt flat with the subject placed in the middle of the painting, white backgrounds, and bright colors straight from the painting set. I taught lessons about creating depth and using the background, we talked about various composition strategies to avoid placing the subject right in the middle, we talked about how to mix colors, and how to show light and dark values (see figures 4.21 and 4.22). Miriam was able to incorporate these skills on her exercises directed by me, yet these skills were absent in her independent work (see figures 4.23-4.25). For the most part, she reverted to the same style of painting she did on her own from the very beginning of the class. Miriam seemed to struggle knowing how to apply new knowledge and skills when she was self-directing her art-making and relied on her previous skills and knowledge.

Figure 4.21. Miriam's Painting Exercise #1
Figure 4.22. Miriam’s Painting Exercise #2

Figure 4.23. Miriam’s Independent Work #1

Figure 4.24. Miriam’s Independent Work #2
Conclusions from Iteration 2. Half of the students in this model did not demonstrate an improvement in their artistic skills and continued to struggle directing their learning. As I reflected on the data, themes, and model, I realized the model and lessons focused on developing technical skills or processes, but my students still lacked competency in creative thinking and idea generation. The students that succeeded and responded well to the lessons were students like Hazel and Lily, who already had ideas or inquiries they were exploring. Because they already had an idea, my lessons and interactions expanded and enhanced their self-directed learning. The model and teachings did not help students like Kaiden, who struggled to generate a personal theme or inquiry, or students like Miriam, who continued to rely on old habits and previous knowledge. Taking these results into consideration, I decided there needed to be a way to adapt the model to help students generate ideas.
Iteration 3

The model in Iteration 3 focused on developing competency in idea generation and conceptual thinking. Throughout the study, I had tried to use the idea of scaffolding borrowed from Vygotsky's (1978) theory of proximal zone of development. Vygotsky argued a teacher who had a greater wealth of experience and knowledge could use their expertise to provide scaffolding or supportive interventions to help students achieve higher learning outcomes. I was curious to see if I modeled my personal artistic process and thinking to students if they might be able to develop their own creative processes and idea generation approaches. The teaching model followed the same pattern of having a teacher-directed day, followed by a student-directed day. On teacher-directed days, I modeled my artistic practice, including the following phases: initial brainstorm, planning phase, constructing constraints, art-making, reflection, and presentation.

I began modeling to students the brainstorming techniques and constraints that enable me to function as an artist. The first process modeled how artists might pay attention to the events occurring in their lives and use their art as a way to investigate these phenomena. At the time, it was close to Halloween. We watched videos about the history of Halloween, discussed traditions and practices that students associated with Halloween, and looked at different cultural beliefs and holidays surrounding death. I then showed students artifacts on various museums' online catalogs and asked students to think about what they would put in a museum as an artifact that would represent their view of Halloween. The comparison between old and new was something I found fascinating and tried to share with my students.

The next consideration explored materials and processes that could be used to make art in response to the ideas that were discussed regarding Halloween. Many students brought up the tradition of carving pumpkins. Although using actual pumpkins was not feasible, the school had
an abundance of cardboard we were able to use. The students and I explored carving cardboard as a way to connect with the carved pumpkin tradition. Some students adapted to the constraints and created various outcomes that related to Halloween.

**Results and Analysis.** In my field journal, I took notes regarding the engagement of students based on things like off-task behavior, the general excitement of students, and the occurrence of statements placing learning responsibility on me like, "I did what you said," "Is this good enough?" or "Is this done?". On the days I taught lessons, there were more instances of students treating the learning like it was my responsibility. Students would defer to me to tell them what to do. Students also asked more questions regarding grading or if their art was good enough to be done. Like previous experiences, students only worked if they were compelled by external rewards or punishments. Some students benefited from the scaffolding and modeling, but I noticed the more I modeled the decision-making process, the less ownership and intrinsic motivation was developed with the students.

**Tension Between Student Motivation and Teacher Involvement.** In some ways, this tension makes sense. These findings are congruent with the ideas of Ariely (2008, 2016), Postman and Weingartner (1969), and Pink (2009). These scholars believe the more individuals are involved in determining how they work, the more ownership is created. The opposite scenario is also true. By taking away students' autonomy, I also took away the responsibility and ownership, resulting in students caring less, when I had intended to create constraints and parameters as a support and guide to enhance learning.

I also had to use my teacher's authority to keep students working. Friere (1972) mentions this authority of teachers and claims it undermines the overall goal of students becoming responsible for directing their learning. Some students would come to me and say, "Here, I did
the assignment," or If I said, "Wow, it looks good, but you could improve this part," students would reply, "Well I did what you said." There was an attitude that if students did what I said, the completed work should be sufficient. One experience with a student highlights this feeling well. The student was sitting around for most of the class period, talking to the people around him. As I went by, I reminded the student to be working. He would nod, and when I turned my back, he would immediately go back to talking. Each time I walked by, the same thing happened. At the end of the day, I asked him to show me what he did that day. He brought a piece of paper he had folded in half, and that was it. He then proceeded to explain why that paper should be considered good art. After he finished, I told him, "This is your education, if you are satisfied making a folded paper, then congratulations, you did it." It felt like he was trying to get away with something. The point I wanted him to see was, get away with what? I wondered which was better, students being semi-engaged in guiding their art-making, which often turned into lousy art or me controlling the learning situation and making decisions, resulting in better art but decreased responsibility and ownership of students.

Conclusions from Iteration 3. In the previous iterations, I had tried to develop a model focused on autonomy or developing competencies in skills. The results based on the student reflections, artwork, and my observations only saw evidence that about half of the students in my classes benefited from the model. Half of the students who were still struggling seemed to be lacking something. There was a tension between my interventions as a teacher and students’ motivations and ownership for learning. I wondered if there was a way to help student learn to brainstorm or find meaning to their work that did not take away from their motivation. Going back to the literature, Pink (2009) and Deci and Ryan (2000, 2008) point to the importance of having a purpose, which is the third component in developing intrinsic motivation. Maybe the
students that were struggling the most were struggling because they did not have a bigger purpose driving their art-making and learning.

**Iteration 4**

In Iteration 4, the learning model I implemented was designed to place a greater focus on developing a deeper purpose in art-making and learning. Instead of expecting students to be able to come up with an idea or theme to investigate on their own, students were asked to select an area of interest based on the work of professional artists. Students were shown a slide show of professional artists that represented a diverse approach to art. There were eight themes represented with two artist examples for each topic. For example, one theme used art to tell personal narratives, like Do Ho Suh, who used his art to grapple with his homesickness and living in places far from his native home. Students selected a category or artist they connected with. From this point, students proposed a final direction or project based on the examples of professional artists we looked at. Some students proposed a new theme or chose to continue their previous inquiry. Each student explained what they wanted to accomplish and what help they wanted from me.

There was also a significant change in the learning/teaching model. Throughout the duration of Iteration 4, I reduced the days I directed the learning and provided more student-directed days in an attempt to increase art production. With this change, I shifted away from whole-class instruction to individual instruction. Part of the decision was a logistical one because students had such diverse plans for their personal theme it would be ineffective to teach all students in the same way.

**Results and Analysis.** I recorded the following in my field journal: "Today students worked on their proposals for their final project. While they worked, I walked around and talked
one-on-one with students. It was amazing how much richer the conversations were. Students were saying, 'I want to do something based on portraiture and culture because those are so linked.' One student said, 'I want to do European fashions which is sort of historical and cultural.' After a few days, I added another entry: "It really activates me as a teacher when students have enough vocab and competency to talk with me on a more even playing field." To break these thoughts down further, showing students the examples of artists was effective at giving them a vocabulary to direct their thoughts, showed students possibilities, and invited students in becoming artists. A student may not have had the words earlier to explain they were interested in personal narratives until we talked about Do Ho Suh. Just as I enjoy the processes of photography and collage because they allow me to create by observing what already exists and not have to generate completely new ideas, providing students with examples allowed them to work within and expand on existing ideas that were of personal interest.

**Authentic Meaning to Art-Making.** The student work during this last segment was exciting because the work students were making was more authentic and personal. Students made animations using little finger skateboards and ramps they built, created installations with handmade props, produced prints with natural student-made inks, and more. The work was unique, meaningful, and connected with a contemporary dialogue.

Carter was a reserved student who could often be found quietly sketching in his sketchbook. He liked to draw things from movies or pop culture and is a huge fan of Marvel stories. When we talked about ideas for his work, he decided he wanted to draw objects or symbols that represented the culture of comics (see figures 4.26 and 4.27). He even constructed a full size replica helmet out of cardboard, which he had to do twice because someone stole the first one.
Figure 4.26. Carter’s Symbols of Culture

Figure 4.27. Carter’s Symbols of Culture #2
Peter struggled to find one specific theme or idea for his work. When we looked at different professional artists, he responded to the work of Sol Lewitt. Peter liked the aesthetic quality of Lewitt's work and was intrigued by Lewitt's written directions that were then fulfilled by someone else. Peter began constructing constraints and rules that he had to follow to generate line drawings. He ended up making a series of twelve drawings based on this idea. The result was quite cohesive and exhibited the first time Peter stuck with an idea from the beginning stages to completion.

For students like Carter and Peter, providing support to build competency, discussing the reasons for making art, and then providing the autonomy for students to guide themselves helped them in their artistic practices.

**Challenges.** Just as there were students that excelled, there were students that did not. There does need to be some recognition that even students who made poor art and did not embrace the model of directing their own learning and art making one day and being teacher led the other day, still made more decisions regarding their learning than they previously were required to do in a teacher-centered model. The biggest frustrations came from working with students who continually pushed the responsibility of their learning on me or goofed around during class. I thought these students might respond to freedom, but found these students remained unengaged, unmotivated, and continued to cause problems in the classroom.

Sebastian was one of the students who was not interested in school and got into trouble a lot. He was the type of student who when given the freedom to choose what to make art about might become more engaged; but instead the opposite occurred. Sebastian sat around a lot and would complain he did not know what to make. One of the only art pieces he made was a box to hold the Ritz crackers he was covertly eating in class (see figure 4.27). I tried on multiple
occasions to help him come up with ideas that would engage him. One day he brought in these superhero action figures and spent most of the class placing the characters in different positions. He explained to me that he collects the figures and spends most of his money buying them online. I suggested he could incorporate them into an art project. Initially, he wasn't sure I was serious, but after assuring him it would be fine, he got excited. His excitement was quickly lost though, and when I tried to inspire him again, he just said no. The more I tried to engage with him, the more he refused to do anything. Much of the class went this way for Sebastian. I was never able to find something that would inspire him and he never really engaged with any of my assignments.

![Sebastian's Ritz Cracker box](image)

Figure 4.28. Sebastian's Ritz Cracker box

**Students' Perceptions and Will are Important in Determining Student Learning**

**Outcomes.** When I first considered the intervention model and sought to find ways to help students have more involvement in their learning, I failed to consider that some students may not
want the responsibility to control and direct their learning. The following example from my field journal demonstrates this point. One student told me my class was one of the worst art classes he had ever had. He said it was the worst class because I did not teach him anything about new skills or helped him improve his art. He felt like he’d only made art in the same way he always had.

Ironically, I did teach lessons on skills and techniques, but this student usually resisted all of the activities I presented. Whenever I tried to work with him one-on-one, he would just stare at me and ask to be left alone. At one point, I met with every student and asked what their personal goals were for the class and what I could do to help them achieve those goals. Every other student gladly discussed their ideas and where they wanted to be by the end of the class. They would offer ideas to me about how I could best help them. This student, on the other hand, would say, "I don't know." That was all I could get from him.

Conclusions from Iteration 4. As I contemplated this specific student's experience and the experience of Sebastian, I was reminded of the writings of Kohl (1994). Kohl suggests there are various reasons students may choose not to learn. Some students choose not to learn to maintain identity or to push against a system that is being forced on them. In this case, the student-directed teacher-supported model was different, new, and challenging. Whatever the resistant students reasons were, their will and attitude created a problematic situation because these students were not meeting the learning outcomes for the art class and the purposes for public education. In addition, the resistant students also created disruption to an orderly and safe learning environment. The learning model fails if a student's perception of learning places all the responsibility for learning on the teacher. Based on my observations, unless a student is willing
to change and embrace something new that requires students to take more responsibility for learning and taking risks, they will end up being disappointed in a student-centered model.

**Conclusion**

At the end of the four iterations, I considered the affordances or limitations of using a student-directed teacher-supported model and found mixed results. The results were paradoxical because the results varied drastically depending on the student. The role and importance the student plays in the learning process were clearly portrayed. The model's best quality was its ability to reveal the drive and ability students have to direct their work. Students who came into the class curious, self-driven, and willing to take the risk of directing their learning, excelled in the experimental model I used. Although many of these students had experience making art at home or in other classes, even students with little artistic experience were able to thrive.

At the same time, a different narrative could be told for the majority of students. Most of the students did not learn to take responsibility for their learning or how to make art that was authentic and meaningful. The results were often similar to the problems I was trying to improve. Students often expected me to tell them what to do and treated the experience like it was an assignment. Overall, many students remained unengaged, did not produce meaningful art, and had low intrinsic motivation. Because I avoided telling students what to do, students had to make more decisions, but this often resulted in art that did not meet the desired learning outcomes.
Chapter 5: Discussion

Summary of Research

In the introduction of this thesis I shared some of the intuitions I had regarding students’ engagement, ownership, and motivation regarding learning. I wondered what would happen if students had a bigger role in directing their learning in contrast with the teacher-centered model I had been using. There were four questions I investigated as part of this inquiry: (1) What existing literature addresses student-directed learning? (2) What is the relationship between student-directed learning and motivation? (3) How does a higher level of student motivation impact classroom management? (4) How could existing theories addressing student-centered learning and motivation be applied in my own middle school art classroom?

In this chapter, I share my conclusions regarding these research questions and discuss the implications for my teaching practice and future research.

Discussion of Findings

As I consider the results of implementing a student-directed and teacher-supported model in my middle school art classes, I see both affordances and limitations. Initially, I thought when students had autonomy to direct their learning they would naturally be more engaged, care more about their learning, and become the kind of students who have initiative, creativity, self-confidence, self-reliance, strong work ethic, and independence, “which is equivalent to learning how to learn” (Postman and Weingartner, 1969, p. 150). In the past, I felt that my teacher-centered practices prevented students from having the responsibility and opportunity to direct their learning. I assumed that students would naturally become more interested, motivated, and engaged in their learning if they were the ones directing it. After analyzing the data I found that students fell into one of three categories regarding student outcomes.
The first scenario describes students who excelled immediately in directing their own learning. These students created meaningful art inquiries, used their autonomy to direct their learning in thoughtful and relevant ways, and had high levels of motivation, ownership, and engagement. The students were already functioning at a high level and meeting the desired educational outcomes from the start of the study. See the examples of Annalisa pp. 67-70, Jaxton pp. 71-72, and Lily pp. 73-75.

The second scenario describes students who initially struggled directing their own learning. At times, they relied on me to direct their learning due to a lack of competency in artistic practices and self-motivation. As a result, these students did not make authentic or personal art, struggled to direct their individual learning, and did not meet desired learning outcomes like developing artistic skills and directing their learning. After the various interventions included in the iterative research process, these students developed competencies in guiding their own learning and competencies in art making. As part of the process of learning to be self-directed these students took control of their learning, made meaningful art as part of a personal inquiry, and required less external motivation because they developed an intrinsic drive. See the examples of Hazel pp. 82-85 and Peter p. 97.

The third scenario describes students who, despite having autonomy to direct their learning and my efforts to help them develop competencies in art making and learning, remained unmotivated, relied on me to direct their learning, and required lots of external motivation to guide behavior. These students often had low ownership or responsibility for their learning, treating it as an assignment with results that showed little effort or personal meaning. See the examples of Sebastian pp. 97-98 and Kaiden pp. 86-87.
The level of student motivation had a significant influence on classroom management. Students who were unmotivated expected me to direct their learning, or were resistant to learning and turned their energy and attention to disruptive behaviors. When the students became off-task, I needed to address their behavior in order to maintain a positive and safe learning environment. As a result, I was less able to work one-on-one with students, which impacted my ability to get to know students and discern their needs. Because student motivation was decreased when I asserted authority, students ended up having less ownership and less buy-in, leading to lower motivation and more disruptive behavior.

The opposite scenario happened with the students who came into the class intrinsically motivated in directing their own learning and those who became intrinsically motivated during the study. The students who were self-driven were focused and contributed to a positive learning environment. They did not require external rewards or punishments to control their behavior or motivate them to learn. Because my role was less of manager and more of a facilitator, I did not have to direct all aspects of the learning process. As a result, I was able to work with students on an individual basis and adapt my teaching to be more helpful for each student. I was energized by these relationships and many students said the one-on-one interactions were the most meaningful parts of class.

**Needs of Students**

Going back to the three categories of students, each category needed a different kind of teacher. The first group of students were ready and capable to direct their own learning, they just need the opportunity to do so. What they needed was a teacher that would let them lead and facilitate their learning. The second category of students did not have the skills necessary to direct their own learning and needed some support and practice. These students needed a teacher
to instruct, expand, and train their abilities in order to be able to become autonomous self-directed learners and artists. The last category of student had not yet discovered the purpose or thing that motivates them to want to learn. These students need a teacher that can inspire, expand their thoughts, and show the value art and learning. There may still be students that choose not to learn, but down the line may have a moment that activates them.

**Implications for Teaching Practice**

After taking these findings into consideration, I have found significant implications for my teaching practice moving forward. As a public middle school teacher, I need to adapt my teaching practice to address the individual needs, views, emotions, and readiness of students. As Brown (1992) acknowledged, an effective teacher should be able to perceive and adapt to the individual needs of a student. In this way, students who are ready can direct their learning and the students who are not at that level can be supported by me until they have developed the needed competencies and skills to guide their own learning.

In addition to being adaptable, the following considerations need to be incorporated into my teaching practice: (1) Students should be involved in making decisions and directing their learning, according to their level and capability, with the goal to help students progress in capability and autonomy. (2) I should leverage my expertise to provide lessons that build competency in artistic practices, creative thinking, and learning. (3) There should be a built-in structure that enables me to develop relationships with each student and discern their unique interests and needs. (4) I should work with students in a collaborative nature to create authentic, relevant, and meaningful purposes or applications for learning.
Applying Theory in Educational Spaces

There is an abundance of research that has been done on student-directed learning and motivation. Much of the scholarship framing this thesis has been around for many years. As Gage (2009) and Cuban (1984) both have noted, the scholarship and theories regarding constructivism or student-directed learning have failed to make a lasting change in the teaching practices of public school teachers. Some of the failures I saw in my research support the claims of Kirschner et al. (2006) who argued student-directed learning is too unpredictable and does not result in students meeting desired educational goals. Some of the other failures I saw were a reflection of the educational system itself, including class size, block schedule, and contact time with students. These factors were outside of my control, but had an influence on the experiences my students and I had with the student-directed model. At times, the combination between the schedule and alternating student-led days and teacher-led days fragmented the learning and made it difficult to have a sustained in-depth learning experience. Maybe the school structure, organization, and goals make teacher-centered inevitable.

One of the reasons Gage (2009) offers for the predominance of teacher-centered teaching is the lack of effective alternative models. Through this research, I experienced my own frustrations with attempting to implement a student-directed model. I was tempted to give up and revert to practices where I could control outcomes. A few times during the study, I used more teacher-centered practices and concluded that whenever my teaching practice began shifting towards a teacher-centered model, student motivation and ownership decreased. If I tried to teach lessons that students did not view as relevant or important to them, their motivation towards learning decreased. In the end these experiences strengthened my belief that teacher-centered
teaching will not produce the outcomes of students learning to think for themselves, learning to
direct their own learning, and having ownership and intrinsic motivation behind their learning.

In *Constructivism: Theory, Perspectives, and Practice*, Fosnot and Perry (2005) said,
“Constructivism is a theory about learning, not a description of teaching. No "cookbook teaching
style" or pat set of instructional techniques can be abstracted from the theory and proposed as a
constructivist approach to teaching” (p. 33). In essence, they argue there can be many
applications of the same theory of learning. Similarly, the results of each application say more
about the application than about the theory. Consequently, I acknowledge the findings of my
research reflect more upon the way the theories were applied versus making commentary about
the theories themselves.

Gallagher and Fazio (2017) argue the success of design-based research is determined by
the ability of the research to improve existing educational practices and contribute to the
development of theory. The application of the theory and the model I used had flaws and
certainly did not work for every student the same way, but it felt like a step in the right direction.
The theories regarding student-led learning and motivation are still relevant and needed in
education. The results of my research suggest there is a need to seek out further solutions that
lead to a teaching practice that helps students become engaged in their learning and be creative
thinkers who can direct their learning.

**Conclusion**

A major theme that emerged in my research was the ongoing tension that exists between
teacher-centered and student-directed practices. Maybe neither practice is solely sufficient to
achieve the desired outcomes of having students be self-directed and achieve the various
purposes of schools. To navigate this tension, I found it was vital to develop a more collaborative
relationship with students and learn about the students’ interests and values. Students have many diverse and nuanced needs. As a result, there is a need to develop an ability to discern the multifaceted needs of my students and be able to adapt my teaching practice accordingly in any classroom. I am not exactly sure how having an adaptable teaching practice would work in a practical setting. The uncertainty requires more practice, experimentation, and research to find an effective and practical solution. Dewey (1964) thought the role of a teacher should be a catalyst for student’s learning. A teacher that develops relationships of trust with their students, finds ways to include the students in the decision making process, enhances the abilities and skills of students through teaching, and shows the relevant and meaningful purposes for learning, will become the teacher that is a true catalyst for their students learning.
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Appendix

Recruitment Script
To be read by an administrator or colleague.

Dear Students,

I am conducting a research study as part of my masters thesis project. I am trying to improve and get better at being an art teacher. I often feel like you guys as students don’t get to be involved a lot in what you are learning and how you are learning it. I want to try a different way of teaching where you are more involved in the learning process. You would create an art individual project, which you will work on in class as part of the regular art class. This project will span the entire semester. I will work one-on-one with you and get the materials you want or need. I will also teach or demonstrate any techniques that will help you on your projects. Each day you will create a few simple reflections about how you thought the day went, things you learned, or would do differently in a journal. At the end I might use the reflections and observations you wrote to help me to learn and improve as a teacher.

I will be trying this different approach to teaching with all my students, even those that are not participating. The difference is I can only use the examples and experiences of those that agree to be a part of the study in my thesis. You won’t get any credit for class for being a part of this study and it has no impact on your grade in class. If you do agree to be a part of the study I can use your examples and data in my thesis.

Again you do not have to participate and it will make no difference in your grade or what you will be doing in class.

If you do wish to participate, you and your parents will need to sign these papers and return them to_____________________ by September 4th, 2019. If you return the papers you will get a candy bar.

Mr Ostraff will not know who or who is not participating until the end of the class so you really can feel free to choose to opt in or out without any negative consequences.

Thanks for your help.
Photographic Release Form

As part of this project, I will be taking photographs of your artwork made during the research study. Please indicate what uses of these photographs you are willing to permit, by initialing next to the uses you agree to and signing at the end. This choice is completely up to you. I will only use the photographs in the ways that you agree to. In any use of the photographs, you (or your child) will not be identified by name.

[ ] Photographs can be reviewed by the research team.
[ ] Photographs can be used for project illustrations.
[ ] Photographs can be used for classroom presentations.
[ ] Photographs can be used for academic conference presentations.
[ ] Photographs can be used for fundraising presentations/proposals.
[ ] Photographs can be used for newspaper or magazine publication
[ ] Photographs can be posted to a website.

I have read the above descriptions and give my express written consent for the use of the photograph(s) as indicated by my initials above.

Student Name (Printed): ___________________ Signature ___________________ Date: ______

Parent Name (Printed): ________________ Signature ________________ Date: ______

Ver. 8/11
Child Assent (7-14 years old)

What is this research about?
My name is Kaleb Ostraff; I am a BYU student working on my masters degree and your art teacher. I want to tell you about a research study I am doing. A research study is a way to find the answers to questions. We are trying to learn more about what will happen if students, like you, are allowed to decided what you learn and direct more of your own learning. You are being asked to join the study because I am asking all of my students to participate in this study, which I will use to write my thesis for my masters degree.

If you decide you want to be in this study:
you will create an art individual project, which you will work on in class as part of the regular art class. This project will span the entire semester. I will work one-on-one with you and then get the materials you need and may demonstrate any techniques that will help you on your projects. Each day you will create a few simple reflections about how you thought the day went, things you learned, or would do differently. At the end I might use the reflections and observations you wrote to help me to learn and improve as a teacher.

I will be trying this different approach to teaching with all my students, even those that are not participating. The difference is I can only use the examples and experiences of those that agreed to be a part of the study in my thesis. You won’t get any credit for class for being a part of this study and it has no impact on your grade in class.

Can anything bad happen to me?
There really isn’t anything bad that could happen to you. Being part of the study will be just like normal school. Just like in any class you may be challenged but being part of the study will have no negative impact on your grade.

Can anything good happen to me?
We don’t know if being in this study will help you. But we hope to learn something that will help other people some day.

Do I have other choices?
You can choose not to be in this study.

Will anyone know I am in the study?
We won’t tell anyone you took part in this study. When we are done with the study, we will write a report about what we learned. We won’t use your name in the report.

What if I do not want to do this?
You don’t have to be in this study. It’s up to you. If you say yes now, but change your mind later, that’s okay too. All you have to do is tell us.

You will receive a candy bar for being in this research study and returning this form. Before you say yes to be in this study; be sure to ask Kaleb Ostraff to tell you more about anything that you don’t understand.
Parental Permission for a Minor

Introduction
My name is Kaleb Ostraff, I am a graduate student from Brigham Young University and your student’s art teacher. I am conducting a research study about What benefits and limitations arise by introducing more student directed and teacher supported learning strategies in a junior high art course? I am inviting your child to take part in the research because (he/she) is in my art classes and I am inviting all my students to be participants.

Procedures
I will be implementing a slightly different curriculum this year. I am asking students to create an art individual project, which they will work on in class as part of the regular art curriculum. This project will span the entire semester. I will work one-on-one with students in the classroom to help guide them in their individual needs and facilitate their chosen projects. These conversations will be key to knowing what each student is in need of and the directions they are interested in pursuing. I will adapt my teaching according to the needs or interests that I observed from my one-on-one interactions with my students. These teachings will be a way to complement, expand, and enhance my students’ individual projects. Each student will keep a reflective journal as part of this learning process.

I suspect teaching with this method may provide a way for me to learn from my students. It may give me the direction I need to help expand their own capabilities by tuning into their interests, desires, and needs. The students may also expand their role as learners by becoming self-directed learners. I suspect they will be more fully engaged in the learning process by determining what they will be doing, how this will be carried out, and collaboratively assessing the results.

If you allow your child to participate in the study, I can use what they write in their journal and their experiences in my thesis. This study I believe will help me to become a more informed and better teacher.

Risks
There really is no risk beyond what your student experiences in a normal day at school. Participation in this study will have no affect on your child’s standing in school or grades in class.

Confidentiality
The research data will be kept in a secure location (or password protected and encrypted) and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in a locked cabinet or office.

Benefits
There are no direct benefits for your child’s participation in this project. But it would be a huge benefit to helping me improve my teaching practice and become a better teacher.

Compensation
There will be a small incentive, candy bar, for participating. This will be given out when this form is returned.