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Cultivating Engagement Through Student-Centered Learning in a High School Media Art Class

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RUNNING HEAD: Student-Centered Learning

Cultivating Engagement Through Student-Centered Learning in a High School Media Art Class

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Submitted in Partial Fulfillment of the Requirements for the Degree

Master of Science in Education

School of Education and Counseling Psychology

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Signature Sheet

This thesis, written under the direction of the candidate's thesis advisor and approved by the Chair of the Master's program, has been presented to and accepted by the Faculty of Education in partial fulfillment of the requirements for the degree of Master of Science. The content and research methodologies presented in this work represent the work of the candidate alone.

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Abstract

Student-centered-learning is a broad term for an approach to education where students are independent, self-directed learners (Krueger, 2014). This active environment is invigorating, energizing and filled with students deeply engaged in the work at hand. Educators are leaning towards embracing methods that foster independence in their students and in turn, these methods are proving to be effective in cultivating an atmosphere of engagement in all types of learners.

This study assessed implementation of opportunities for self-directed learning, and evaluated student interest and engagement in classroom activities. A review of the literature indicates that adapting this approach can be effective in increasing student interest, motivation and engagement.

Students enrolled in a high school Digital Media Art class were participants in the study. The teacher of record gathered information on student interest as part of a classroom discussion, referred to as digital warm-ups, reflections and surveys, as well as journal notes. Students decided on a skill to master along with a topic, then designed the method in which to master the skill. The students planned the study guides, grading rubrics, assignments, and warm-ups as a group.

Results indicated students were eager and capable to develop as self-directed learners. Recommendations included the importance of preparing classroom materials to be fully accessible to support students in successful implementation of self-direction in the classroom. A prepared and organized educator is essential for this method to be successful.

Keywords: student-centered learning, self-directed learning, inclusive learning model, engagement, motivation, high school, art, digital media, Montessori

Chapter 1 Impact of a Student-Centered Approach on Student Engagement

There are typically two specific types of learning environments in most schools today.

One is the traditional classroom where the teacher is the center of the universe. The other is a student-centered classroom setting where students are involved in the process of learning because they have been part of the design. When students are self-directed as opposed to teacher-directed they tend towards engaging deeply in learning, practicing, collaborating and working towards an agreed upon goal. Their activity and excitement fill the room. On the other hand in the traditional, teacher-centered classroom, the teacher is the nucleus of all activity and expertise, handing out assignments that may or may not hold interest or meaning for the student. In this model, for example students are often bored, disengaged, uninterested, and unmotivated as they have little investment in the material and cannot easily relate it to their own unique and varied experiences or interests.

How often has a teacher heard from a student, “Why do we have to learn this? I won’t ever use it?” The expectation is for the student to absorb the lesson, making it a part of their lives. This method assumes students to be blank slates to impress upon, learning in this approach tends to be hit or miss. Today’s deeply dedicated teacher is often blindsided by disengaged students in their classroom, unsure how to engage them and some are even baffled at why their students have little interest in learning. The dilemma of the disengaged learner is so pervasive professional development is filled with strategies to engage these students.

It can be disheartening to reach the end of an academic year only to discover only some of the students understand the material. How did the rest of the students slip through the cracks? They may have completed the assignments, passed the exams and yet genuine understanding

eludes them. This is a direct result of disengagement. To further understand the problem here, we must look to the two models mentioned: the teacher-centered and the student-centered classroom models. If we look closely, we can see a way to engage the disenchanted learners through a change in the environment from one that dampens to one that excites and engages. Giving students materials and a problem to solve that matters to them will generate excitement. This is where the journey begins.

Statement of Problem

High school students who are less engaged and less motivated to learn than their peers are at increased risk of failing in their education with a strong connection between disengagement and dropping out (Fredricks et al., 2011). Fredricks points to the “growing awareness of the connection between disengagement and dropping out” and goes on to include the use of engagement as a tool for intervention (p. 2). Although this might be the “last step in a long process of disengagement”, (p. 3) something can be done to halt this downward spiral.

New and seasoned teachers alike can be stumped at how to engage and inspire a teenager who is unmotivated to learn. Traditional classrooms with a one-size-fits-all learning environment are not all-inclusive. This by nature leads to boredom and distraction resulting in disengagement. To compound the problem, students are often on opposite sides of the learning spectrum adding another dimension to the already difficult task of differentiating curriculum and engaging students. These students are lost in a sea of indifference, they are giving up the idea that education can hold meaning for them. We as educators are perpetuating a great disservice to the disengaged by giving up on them when we have taken on the task of educating. As educators, it is necessary

to design inclusive and meaningful activities that aid in the engagement of all students which can prove to be a difficult to impossible task in a traditional classroom setting. Something needs to change that includes all skill sets, learning styles and levels of interest.

The solution is simple yet not necessarily easy or straightforward. When teaching content the instructor needs to step back and allow the students to direct their own learning at their own individual levels. There must be a change in the way content is disseminated to students. Finding a way to assist students in understanding the material, while engaging deeply with the material, is essential to solve this issue. The permeating lack of engagement becomes a problem for everyone in the classroom from peers, to the teacher, to the school at large, and the community beyond the walls of the school.

Purpose Statement

The purpose of this study is two fold: the implementation of opportunities for self-directed learning, and the evaluation of student interest and engagement in classroom activities. Interest levels of students were identified prior to the study. Students were given choice in directing their learning towards topics and projects that held a strong interest for them. I, as the instructor, implemented a student led unit and solicited evaluation and feedback from the participants.

Research Questions

What can be done to engage and motivate high school students in a required Media Arts course that allows for differentiation? To what degree does integration of a student-centered, self-

directed learning environment impact motivation, engagement, understanding and ultimately mastery? How does increasing student choice lead to an equitable and inclusive learning environment?

In transitioning from a teacher-centered to learner-centered classroom, how can the instructor create an independent working environment? How can the instructor effectively prepare the classroom to create a fluid learning environment allowing students to work independently? A legitimate question arises; will students go for it? Will they accept the autonomy and still be productive? Students often verbalize they desire choice, but are they ready for the responsibility? A bigger question might be, can teachers relinquish their own power and sense of control to allow for student autonomy?

Theoretical Rationale

Maria Montessori

Maria Montessori (1967) was one of the first in the field of education to bring the idea of a student-centered approach through allowing students *choice* in the classroom. Upon close examination, Montessori's theory is in part responsible for bringing the idea of self-directed learning to the forefront of education. The challenge is in implementing choice with a student-centered learning approach into a classroom where the norm is a teacher centric environment.

Maria Montessori, considered "one of the world's most powerful advocates for changing educational approaches", (Brendtro, 1999, p. 201) began her work to reform education for disadvantaged children as early as 1898 when she studied education and psychology. Montessori,

“already renowned through Europe as the first woman in Italy to receive her doctorate in medicine” (p. 201) was influenced through her education and observations of children who were deemed “unteachable”. Montessori, a scientist first and foremost, found her research led to the realization that a child’s potential to learn lays in the ability of the educator to act as observer (Bärbieru) as opposed to director. As Barbieru states, “The traditional school shows the educator as the subject in education, the keeper of information and all control. The child is considered to be the object” (Bärbieru, 2016, p. 201). In a Montessori classroom, this role is somewhat reversed. This change of power and control leads to a student-centered approach, where students are in control of certain aspects of their own learning leading to an intrinsic motivation to learn.

Maria Montessori was determined to allow the child to be the arbiter of his or her own learning environment. Montessori observed that children when given the opportunity would prefer to correct themselves rather than depend on an adult to correct them. Using this information she created methodology along with materials to foster independence. A Montessori teacher puts great effort into preparation of the environment which is an essential tool to create maximum student independence.

When students are given a choice in how they learn along with freedom within constraints through careful preparation of their environment their independence will flourish. Montessori wrote (1967) about discovering that education is a natural process that develops spontaneously and is not acquired by listening to words (pg. 8). This is what Montessori observed and supported in her theory of self-directed, student-centered learning.

John Dewey

John Dewey is another voice that must be included in the discussion around student-centered learning. Dewey, in his work “The School and Society”, (1915) dedicated an entire chapter to the life of the child as it relates to school. There is a passage where Dewey considered the learning environment. He describes searching for suitable desks and chairs to meet the needs children artistically, hygienically, and educationally. A supply store worker responded, “I am afraid we have not what you want. You want something at which the children may work; these are all for listening” (p. 32). He goes on to say “That tells the story of traditional education.” Dewey discussed the expectation that children learn in an environment that is *passive* for the child. He talked about children needing to work, construct, create and actively inquire.

It is quite remarkable to read such modern thinking about education reform that was written more than a hundred years ago. What springs to mind is the question, was he ahead of his time with this innovative and clearly groundbreaking thought process? Why has it taken more than a hundred years to initiate educational reform that focuses on an student-centered environment?

Assumptions

It is often assumed that children are not capable of making the important decisions that affect their education and learning. The idea that the adult enters the room as a wealth of knowledge to be transferred to eagerly awaiting empty vessels is a bias. On the contrary, today’s modern teacher enters a classroom with experience, knowledge, and an earnestness to educate their charges. The goal is to implement strategies that motivate

students to listen with a genuine interest to new and meaningful the material. Another assumption is this might be difficult to achieve.

Background and Need

Teaching For Artistic Behavior (TAB)

Teaching For Artistic Behavior (TAB) is a nationally recognized choice based art education approach and grassroots educational movement (2017). TAB aims to engage students through self-directed learning specific to the art classroom. According to their website, TAB is a choice-based education approach that includes action research in visual art classrooms in the United States. This approach incorporates a constructivist philosophy taking multiple theories into account, established in 2001 as an organization developed and maintained by art teachers (TAB, 2016). A good and comprehensive resource for a TAB based approach can also be found at The Art of Education (AOE N.D.), a higher learning institution dedicated to a student centered learning approach.

New Media Consortium

Johnson, Adams Becker, Estrada, and Freeman (2015), of the New Media Consortium described various technologies, their long-term impact as well as challenges and developments in education. The report includes a panel of 56 experts from 22 countries and five years of charting emerging technologies and their global impact across education, making this study of particular significance. The two long-term trends revealed in the report are first rethinking the way schools work regarding student engagement, drive and innovation and second a shift in learning ap-

proaches that include challenge-based learning and deeper learning approaches. The report focuses on trends, challenges and developments over a period of time, and follows up with the impact schools face in regards to trends leading towards a shift to deeper learning approaches. The report looks at practical measures including creative application of technology and school structure. The report showcases Finland as an emerging leader in the restructuring of the school day, to include alternative methods of evaluation, such as demonstration of knowledge, which is a common practice in a student-centered environment.

The most telling aspect of this report on the topic of the student-centered learning environments is the following statement, “All over the world, schools have been shifting the roles of students from passive consumers of content and knowledge to creators of it” (p. 7). The relevance of this study on the issue of a student-centered learning approach demonstrates the validity of this type of learning environment, and its ability to spark motivation and increase student engagement.

Summary

There is a clear need to engage students on a deeper level. Offering students a choice in what and how they learn allows them to generate motivation and interest intrinsically. What is discussed is choice in the classroom and the impact a choice based student-centered learning environment can have on motivation and interest for high school students in a Media Arts class.

A student-centered approach was first implemented by Maria Montessori, and further developed and studied by John Dewey. Both Montessori and Dewey believed strongly in the idea that children need to learn through working with problems and materials, as opposed to listening

to an instructor disseminate information. The theory of education reform, based on a student-centered learning model, represents a shift from a traditional teacher-centered model of direct instruction, to a student-centered learning environment that is self-directed.

The following chapter is an examination of the research literature on choice, student-centered, and self-directed leaning. A review of the literature reveals the impact on motivation for the particularly at risk, high school student in a learning environment that utilizes a student-centered approach.

Chapter 2 Review of the Literature

Introduction

Much of the literature reviewed is in support of student-centered learning environments. Education reform is a constant with new strategies cropping up continuously. The research uncovers models and ideals along with philosophies around self-governance within a learning environment. There is a leaning towards 21st century skills as an ideal to work towards, with focus on the learning environment, curriculum and instruction, as well as skills that can be accommodated within a learner-centered model. There are many myths surrounding the student-centered learning environment that should be addressed along with multiple philosophies surrounding the idea of self-directed learning. Choice in the classroom is also a significant model that was examined.

This section is an examination of the research literature on student-centered learning. Information was gathered from academic library searches using online resources. Research information is organized in the following categories: Historical Context, Review of the Academic Research, and Interview with an Expert; Dr. Betsy Coe with a summary of the interview.

Review of Academic Research

Historical Context

Montessori and Dewey were among the first to bring the idea of student-centered learning to the forefront of what was to become a heated discourse on education reform. Both Montessori and Dewey were quite possibly the first to collect data on education and learning as

social interactive processes. Dewey (2016) argued that students thrive in an environment where they interact with the curriculum, which supported Montessori's (1967) argument for a child's potential to learn without adult interference.

These leaders shared important contributions to educational reform. However, Montessori may have been perceived as a threat to Dewey, as discussed in the writing published in 1914 by Dewey's one time student William Kilpatrick (Thayer-Bacon, 2012). The manuscript declared Montessori's work as outdated, making comparisons between Dewey and Montessori throughout the text. Kilpatrick's work affected Montessori professionally and personally during her lifetime. Thayer-Bacon noted, "while John Dewey started one school, the Chicago Lab School in 1886 which grew to enroll 1400 students by 1990, Maria Montessori started one school, La Casa dei Bambini, in 1907 and there are now over 3,000 Montessori schools in over 80 different countries" (Thayer-Bacon, 2012, p. 4).

Education for Social Change

Paulo Friere, was a great informer on the topic of education for social change. His work, according to Gottesman (2010) has been responsible for the reinvigoration of discussions around the idea of education as the central axis for social change. While Mayo (2010) characterizes Freire's philosophy as an image of "a world not as it is now but as it should and can be" (p. 9) offering a sobering look into the world through the eyes of hope for a better future. Freire's life was largely dedicated to social justice for the oppressed. Born in Brazil in 1921, Freire worked with adult illiterates gradually evolving a philosophy and theory that has taken a strong hold in

western education circles. For Freire, the idea and ideal of equanimity and social justice was more than just a concept, it was his life work and mission.

The idea of social change coming about through the forum of education is not a new concept. Looking at education as the means for change was also a prime ideal for Dewey as can be seen in the all telling quote from *The School and Society*; “All that society has accomplished for itself is put through the agency of the school” (Dewey, 1915, p 3). Friere’s philosophy in the area of education for social change came about through his work around language and literacy as a means for social change in his home country of Brazil. Educators have long utilized Freire’s pet theory of Praxis which is characterized by the Freire Institute as a transformation of ones reality through action and critical reflection that is achieved by acting “together upon their environment” (Freire 2016).

When speaking of education for social change, one must include Maria Montessori in the conversation as she is known for reforming education and transforming her ideals into an educational movement known as ‘Montessori’ (Brendtro, 1999). “Montessori believed that the basis for a science of pedagogy was to stop trying to put our preprocessed material into the head of a reluctant learner and, instead, discover how to tap the child’s natural instincts for curiosity, play and discovery” (p. 7). The Montessori philosophy is centered on peace education and social change as a natural result from educating the child.

Montessori on Autonomy and Self-Governance

In the article by Frierson (2016), the discussion begins by looking at children as they are regarded, with a lack of capacity for agency or autonomy. The idea of children as unfinished, not

ready for more than their natural impulses and desires or as incapable of making their own choices, good or bad comes into play as some of the forms that the discourse on autonomy and choice are discussed. Montessori took into account from the start the child's capacity for autonomy. Frierson looks at Martha Nussbaum's research on human development, interweaving her theories on external capability and combined capability as a resource towards internal and external abilities as they relate to children. Another way to view this is to see the abilities as innate and acquired capabilities.

How this research relates to self-governance and autonomy, as seen by Maria Montessori, is she believed that children already have a developed internal capability that is "not merely potential but an available condition of readiness to choose in a way that is genuinely autonomous" (Frierson, 2016, p. 337). This is significant when looking towards a program based in student autonomy and is useful to refer to while implementing a student-centered, choice based approach. Further examining choice and children's will towards autonomy, Frierson discusses Montessori's concepts as evidence that children will choose items based on not only preference, but other higher level concepts such as a respect for others, a sense of patience and genuine autonomy. Montessori according to Frierson separated children into two categories of *strong and weak* respectively, describing the weak children as more passive by nature while the strong children tend towards fits of rage, insubordination and an inability to focus (Frierson, 2016). While stating these are not exclusive or exhaustive categories, further explaining that Montessori used these examples in their more extreme forms. The point is taken that Montessori did not view these differences in nature as developmentally age-related, but rather as an external difference depicting a starved mind with a lack of opportunities for spontaneous activities (Montessori,

1967 p. 199). In conclusion, on the topic of Montessori's view of autonomy and self-governance, it can be determined there is much to this conversation that Montessori herself researched and practiced exhaustively and thoroughly.

Psychology Behind Learner-Centered Approach

Upon examination, this study has been found to be helpful in supporting and finding learner-centered principles in education. The study examines the psychology behind learner-centered principles and a century of research on teaching and learning found in schools. There is significant psychology backing up the validity of a learner-centered approach in this publication. Relevant data can be found in the historical document that was derived from a 1990 APA presidential task force and revised in 1997 (APA 1993). The study looks at developmental, educational, social, experimental, clinical, organizational, community and school psychology as a backdrop. The findings are part of a "framework" for school reform and redesign as prepared by a work group called "The learner-centered Principles work group of the American Psychological Association's board of Education Affairs" (BEA). This study by the nature of its background is important in the arena of the topic of student or learner-centered learning. The study is basically an in-depth look at each of the fourteen principles that have been developed through research and discussion of each principle. The task force involved is cited as experts as is the work group.

Learner-Centered Classrooms

Technology-enhanced, learner-centered classrooms are examined in an article by Yun-Jo An and Charles Reigeluth (2011). The study details the benefits of a student-centered classroom

citing multiple references and studies to support the claims. Students assess the before and after of the student-centered approach through a questionnaire. The results offer multi levels of improvement on learning and motivation after the student-centered experience indicating the approach effectiveness in student motivation and other learning domains. Other studies are cited with their results supporting this finding. The technology component is addressed through the current generational aspect of growing up digitally and the impact this has on learning, along with a need to integrate technology to engage this generation. The authors cite the limited research literature on technology integration, specifically in the area of learner-centered technology approaches. Within the study, learner-centered classrooms are grouped into 6 general characteristics and 12 learner centered psychological principles. The 6 characteristics are "Personalized and customized learning", "Social and emotional support", "Self-Regulation", "Collaborative and authentic learning experiences", and "Assessment for learning" (p. 55).

The article presented by Overby (2011) looks at student-centered learning, also referred to here as Project-Based Learning (PBL), from the perspective of transformation in the classroom. The article focuses on changing from a traditional one-size-fits all approach of teaching to a student-driven approach. The idea behind student-centered learning according to Overby is to bring the classroom and the students to life. She talks about the teacher as a "guide on the side", who assists rather than assigns (Overby, 2011). In this approach, the teacher helps students to meet goals that have been made with the teacher and student collaboratively. This is a key concept discussed as is all academic levels working together and small work groups. Other aspects explored as part of student centered learning are self-reliance, cooperation, higher levels of thinking, improvement of attitude to learn and an increase in overall attendance. Teaching in a

different way, to bring the classroom to life is a key element in this article. Engaging students on a deeper level is the promise of a student-centered classroom. This article is a simple “how to” with clear examples such as building relationships with students, fostering respect for students and having the student learn while they are busy being engaged in the process of learning. Specific studies are referenced as data-driven guides towards a significant increase in higher understanding of a topic, higher reading levels, more motivation to learn, and an increase in basic skills from below average to above average in three studies spanning several states and countries.

The article by Douglas (2015) is one of many small articles written to inform and support teachers leading a choice-based art curriculum. This can be seen in the paragraph titled ‘Choice Teachers Offer’ (2015), where Douglas explains the importance of envisioning your classroom as a studio of discovery where students are asked to consider what they would like to make and to think of themselves as a community of artists. There are tidbits of information on strategies and preparing a choice-based art room.

Self-Directed Learning

In December of 2004, Northwest Regional Educational Laboratory published an article that is a topical summary of current research on developing, defining and supporting students to become self-directed learners. The article looks at the impact of student achievement by tapping into a student’s motivation to learn through self-directed learning. It discusses the implications on instruction, research on traits, standards, and policy and accountability issues. The article supports the idea of a self-directed learner as a skill to be developed and practiced. The article delves into student motivation, bringing up the many reasons a student might choose to engage in an

academic task, looking at educational psychology, motivational psychology and other theories in student motivation in an easy to digest format. This article considers the following key factors: Student Motivation, Goal Orientation Locus of Control, Self Efficacy, Self-Regulation and Metacognition, linking research to each of these learner traits along with the classroom implications.

This article clearly defines Student-Centered Instruction (SCI) as a shifting of the responsibility of learning course materials on to the student, rather than solely on the teacher (Felder, 1996). The article looks at SCI as an approach to learning including techniques such as substituting active learning experiences for lectures, holding students responsible for material above and beyond class discussions, assigning problems requiring critical and creative thinking as well as a multitude of other hands-on methods of learning for the student. The article discusses the traditional model of instruction versus the SCI model. Some additional examples of SCI leading to increased motivation to learn include a greater retention of knowledge as well as deeper understanding and more positive attitudes towards the subjects being taught. The article does include a helpful warning to enthusiasts about plunging in to SCI without first preparing. The article overall is a good step-by-step guide to implementing a SCI approach with expectations of student, faculty with questions and answers on possible scenarios.

In June of 2015, the Research and Education Department at Instucture, part of the Canvas learning management system, published a glossary of terms associated with student-centered leaning. This illustration is a powerful visual that views student-centered learning as an “ecosystem” (Stein, 2015) filled with techniques and outcomes. This illustration is a comprehensive and useful tool when working to integrate a student-centered learning environment.

Student Perspective - Directed Learning

McCarthy (2015) begins by making a comparison between teachers at a professional development conference session with their students. The expectation of gaining skills and strategies for immediate use when attending a learning experience is a non-negotiable expectation for teachers and administrators, and yet we do not always apply this simple achievable outcome to our students. The fact that teachers can walk away from a conference when it does not meet their expectations offers an opportunity to share the unique perspective of a student who cannot always physically leave a classroom when instruction does not involve them. To cope with this disengagement, there are other ways they check out. The title: “Student-Centered Learning: It Starts With The Teacher” relates the sentiment of finding value and meaning for our students by involving them in the learning process from planning and implementation to assessment. The article goes on to discuss that teachers need to become comfortable with changing their leadership style from directive to consultive. Teachers must decide to “share” power by empowering learners. Placing students at the center of their own learning requires collaboration and cooperation. They need a voice in why, what and how learning experiences take shape. The article goes on to flush out the why, what and how. It concludes by discussing a need to believe in the students’ capacity to lead and letting go of control. This is part of a series with links to other related articles and material (McCarthy 2015).

Multiage Classrooms

In ‘Experiences in Multiage Art Education: Suggestions for Art Teachers Working With Split Class Combinations’ (Broome, 2015), the practice of mixing grade levels in the school setting as a definitive need for training teachers with mixed-aged groupings is considered. According to Broome (2015), there are two motives for mixing ages in classrooms. “The first overarching motive involves economic considerations, while the second motive is guided by educational philosophy” (p. 30). The philosophical approach discusses the idea of multiage classrooms featuring an intentional creation of cooperative learning communities as can be seen in the following passages; “The multiage philosophy lies in opposition to teacher-centered approaches...”, “Instead, multiage education embraces student-centered constructivist approaches where students’ learning is socially built on shared experiences.” (p.30).

Student Engagement in The Classroom

When discussing student engagement in the classroom, it is helpful to consider the prevalence of students with learning and other disorders, as these are increasing over recent years and have a great impact on classroom environment and student engagement in general. The study (Dykstra, 2015) looks at multiple factors relating to engagement in the classroom as it relates to children with autism spectrum disorder (ASD). I found this study to be relevant to engagement in general in the classroom due to its research on examining “...relationships between joint engagement and classroom factors and student characteristics” (Dykstra, 2015). The fact that differentiation for all students is helpful when talking about student engagement leads towards research conducted with learning differences in mind.

Personal Communication/Interview with an Expert

On November 15, 2016, I conducted the first of several planned interviews with Dr. Elizabeth Coe (personal communication, 2016). Dr. Coe is internationally recognized for her work in and around Montessori education, including pioneering the first education, teacher, and leadership training courses that are AMS approved. She is one of the world's foremost experts on Montessori education, particularly secondary, is the executive director of the Houston Montessori Center, the principal of School of The Woods High School and one of the founders of School of The Woods.

Q. Describe your experience researching theories related to Montessori and her methodology:

Dr. Coe has always been a lifelong learner and a tireless advocate for peace education she maintains a keen interest in Paolo Friere's theories and their connection to Montessori. We discussed her dissertation and research around Paulo Friere's theories and their relation to Montessori. Dr. Coe's research was largely based on connecting Friere's theories and ideals to Maria Montessori's research, and theories (Personal Communication 2016). Dr. Coe is an expert in the field of secondary Montessori education and was named by AMS (American Montessori Society) as a living legacy in 2008 (AMS 2008). Dr. Coe works tirelessly in the field of education worldwide, training teachers in Montessori through the first AMS secondary education course she created and of which she is the executive director. She is the founder of a group of schools in Houston, Texas from childhood to the adult, teacher training centers.

Summary of the Literature

Based on the findings of others, the researcher has established that incorporating a more student-centered approach to learning can help educators positively impact motivation and engagement in students with a wide range of learning styles and abilities. Today's classroom is a microcosm of the world around us. There are a variety of learning styles, cultures, languages and socioeconomic backgrounds. It is essential that today's teacher is equipped with understanding, compassion and a teaching approach that includes all learners from all backgrounds. It is increasingly clear the old method of a teacher-centered learning environment is not an inclusive learning model for all students. The idea of a one-size-fits all education model is outdated. Teachers are embracing methods and environments to engage all learners on a deeper level and to develop an intrinsic love for learning that leads to creative inquiry and collaboration. How teachers embrace a learning environment to promote student inclusion at all levels and abilities while encouraging innovation, motivation and creativity in the classroom is beyond the traditional classroom model. A new model is emerging where students are responsible for learning the material in a student-centered environment. The student is self-directed, following a model of deeper learning and commitment to the material. Student-Centered learning environments are thought of as vibrant work spaces where students are free to challenge and explore while working together in a cooperative environment with the teacher and other students. The teacher is thought of as a facilitator or "a guide on the side". A student-centered learning environment often utilizes a project based learning model where students are engaged in the process of learning through doing, creating, and experimenting.

Much of the information collected supports the concept of students gaining confidence, motivation and self-direction when a student-centered approach is taken. It was the researchers intent to explore the impact of motivation on high school students in a Media Arts lab during the transition from a teacher-centric learning environment to a student-centered one. The expected outcome was for students to share power and become creators and innovators, as opposed to their previous roles as consumers of information. The data suggests a strong tie between student-centered education and greater understanding of topic, reading levels, deeper understanding and motivation to learn along with an increase of basic skills.

Chapter 3 Method

Introduction

This study explores the impact a student-centered approach has on cultivating engagement and motivation in a high school Media Arts lab. The research relied on the qualitative approach, using data collected through multiple means including; digital surveys, warm ups, researcher observations and reflections, student journals, interviews, class discussions and the critical eye of an onsite instructional coach who observed the class environment before in its teacher-centric state and after during the student-centered format.

Research Approach

This was a qualitative study that utilized direct observation, unstructured interviewing and written documents as well as third party observations. The primary goal of qualitative research is to interpret and document an entire phenomenon from an individual's viewpoint or frame of reference (MacDonald 2012).

I, as the teacher/researcher, designed a Teacher Action Research (TAR) program that examined the results of a student-centered approach in a high school media arts lab setting. The purpose for selecting this approach; is to allow for data collection on student engagement, in a structured and consistent environment over time.

The study occurred during regular and customary classes from January through April 2017. Students led discussions and brainstorming sessions where they assumed complete ownership in the design of guiding questions, proposal templates, study guides and assessments for a

student-driven unit. The results were collected through observation, notes taken by the researcher and data collected in the form of a survey taken prior to and after the student driven unit.

Results of the study were reported in aggregate terms only. No personally identifying information was included in the final report in an effort to preserve confidentiality of participants.

Ethical Standards

This paper adheres to the ethical standards for protection of human subjects of the American Psychological Association (2010). Additionally a research proposal was submitted and reviewed by my thesis advisor and approved. The head of school received a letter describing the study. She read and approved the proposal.

Sample and Site

Research was conducted in a Northern California public charter high school media arts class. Each class self-selected through a majority class vote for or against a student-led unit. Three of four classes selected a student-led unit and one class selected to remain in the traditional class structure. At the end of the unit, all four classes had an opportunity to continue with student-led curriculum. At the end of the study 83 percent of all students voted to continue with the student-led format, this included the one class that opted for a teacher-centric unit during the study.

Access and Permissions

I am the teacher of record, I have informed my head of school (principal) of my research and obtained permission to do so. The teacher action research project took place during regular and customary classes from January through April 2017.

Data Gathering Procedures

Information was gathered using a survey prior to and again after the student-centered unit was completed. Questions were posed and organized into four categories: 1) participant interest level and motivation to work on assignments that are largely teacher-centered; 2) participant interest level to work on assignments that are student-led; 3) changes in classroom atmosphere as a result of implementing a student-centered approach; 4) challenges in students ability to adopt to student-centered approach.

Multiple methods of data collection were utilized including surveys, classroom discussions, warm ups, interviews and observation. Findings are reported in Chapter 4.

Data Analysis Approach

The approach for analyzing the data took the form of charts, observations, written excerpts, journals, and a third party critical eye with all data organized and analyzed using triangulation to reduce bias.

Chapter 4 Findings

Description of Site, Individuals, Data

The study was conducted at a Northern California Public Charter High School in its fourth year of operation, close to a major urban center, in a community primarily characterized by mixed economics of both low and high income neighborhoods.

During the school year, when the majority of research was conducted, there were between 160 to 180 students enrolled in grades 9-12; approximately 51 percent of the students were Hispanic or Latino, 20 percent White, 10 percent of the students were African American, 9 percent Asian/American /Pacific Islander, 10 percent were two or more races and/or declined to state. Of these reported, 9 % were English language learners (42% RFEP), 12 % were Special Education, 55 % were free and reduced lunch and 69 % were first generation students.

Of the 180 students, approximately 120 freshmen and sophomores were enrolled in the required Media Arts classes. The ethnic and socio-economic makeup of the media arts students was roughly commensurate with that of the student body as a whole. Approximately 90 of the 120, or three classes chose to participate in this study, also known as a student-centered unit of study. All participants were 9th and 10th grade students.

For the purpose of this study, three focus groups were conducted involving 90 Media Arts students, 41 male and 47 female, and 11 identified SPED/504 students, all of whom participated

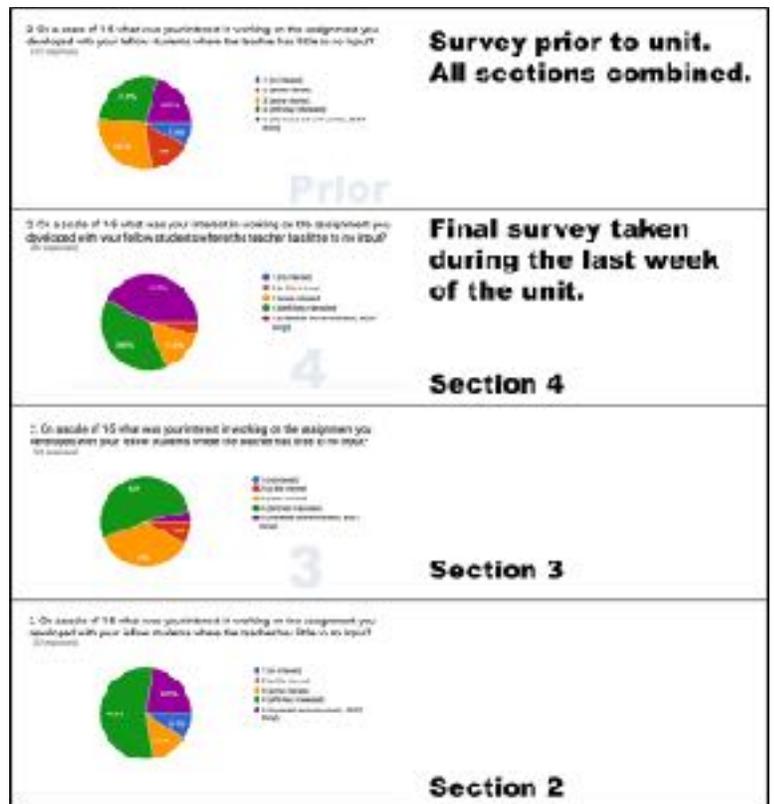
in the design of the student-centered unit of study. For each class cohort, students self-selected to work in teams, groups or individually. Classes consisted of two hour block scheduling twice a week in a mixed use space containing a digital media lab and art studio. Each student was responsible for tracking their daily progress with a designated student leader in charge of tracking for each class.

Baseline And Follow-up Assessment

The sampling of data was divided into two parts: a baseline taken prior to the study and a follow up, taken during the unit. Data collected and analyzed took the form of surveys completed by all students enrolled, approximately 120 students in December 2016 and again in March 2017 by the 90 participating students. The purpose of the surveys were to gain a baseline assessment of student interest level in participating in a planned student-driven unit prior to and after, in order to assess interest level while participating in unit. The graphs that follow are a sample of the initial and final results broken into classes. The first depicts the overwhelming interest in a student-led assignment and the last shows an overwhelming interest in the individual choice of assignment and a strong interest in pursuing the subject matter of their own choice.

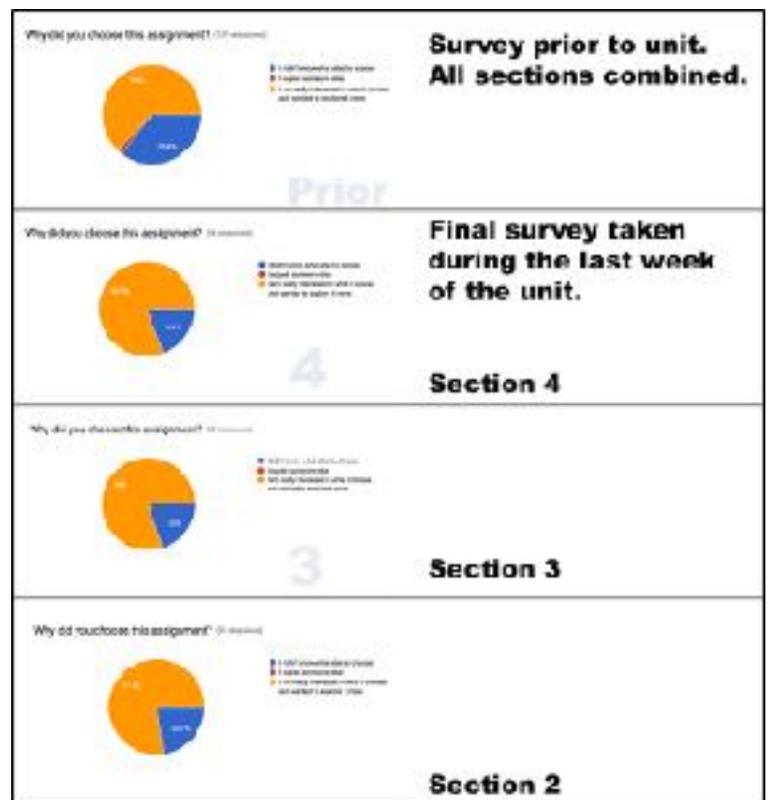
Question 2

On a scale of 1-5 what was your interest in working on the assignment you developed with your fellow students where the teacher has little to no input?



Last Question

Why did you choose this assignment?



Written Questions and Responses

The second part of the survey asked the following questions:

1) How do you think this approach changed the atmosphere of the classroom in general?

And how do you think this changed your interest level and motivation in the classroom specifically?

2) Please with a short paragraph reflecting on this.

3) What are some challenges you encountered with creating your own assignment?

4) What did you like the most about choosing your own assignment?

5) What did you like least about choosing your own curriculum?

6) Do you have any suggestions for the teacher?

The student survey results and responses revealed that students appreciated the autonomy of choice in their learning. When asked to share observations three main themes emerged: First, participants appreciated freedom of choice. One student commented as follows “I felt many people in the classroom were more determined...I felt creative” and another wrote; “I certainly felt more motivated to do my project”. The second emerging theme centered around participants feeling more involved in the work at hand and excitement that they could determine their own path while working with others. This theme centers on collaboration. The third theme revealed participants enjoying the work, feeling more relaxed while finding the class less stressful.

Pulling together the survey responses, the answers were based on the participant feelings of freedom and creativity, as well as noticing other classmates excitement and involvement. It bears noting that students requested more technical lessons from the teacher during the student-

led unit. A shared theme in the area of challenges students observed was time management. Several students commented on not having much interest at first but found engagement and motivation as they moved deeper into their project.

Summary

During the months prior to this study, classroom engagement was arbitrary, seemingly dependent on unpredictable sources, often outside the classroom, such as family issues, romantic relationships involving students, physical or mental health issues. This study is the result of research to cultivate, inspire and improve engagement in the classroom. Working toward a more equitable and inclusive classroom, the researcher incorporated basic student-centered devices to transition and transform the classroom. During the student-led format outside issues became a means of expression as opposed to a means of distraction. Students began to become more involved in the work at hand using the classroom work as the distraction to personal problems as opposed to the problems becoming the distraction to the class work.

The idea of a student-driven curriculum was introduced over a several month period, through warm-ups and classroom discussions. In December of 2016 students were asked to create an assignment *they* wanted to work on and then to do the assignment that same day. The following day, students took the first survey on their experience. This assignment and survey were used as a starting point for research and methodology.

There were several notable findings during the study. First, students working more efficiently, cohesively and collaboratively when they took part in the planning and design of their work. Another finding was a level of organization that students adapted that would not be possi-

ble at the beginning of the year, due to habits not yet formed or modeled by the instructor. There is a strong indication for greater future success to start out modeling, planning and organizational skills in the beginning of the school year. Another strategy could be teaching specific behaviors such as activity logs, researching topics and student-leader training with subsequent collaborative peer teaching.

The result of this study was dependent on a variety of factors, including homogeneous groupings that occurred due to student placement, uncharacteristic of the school setting where the study took place. Recommendations are to adhere to a heterogeneous model as much as possible.

It was observed by the researcher that classes involved in planning, from writing study guides and assignments to assessments, were more likely to adhere to the due dates and check-ins. It was also observed that there were varying levels of success when using the self-directed timelines. Some groups were more productive and independent than others, although it was observed that all classes appeared more engaged than when following a traditional model of planning, and setting due date.

Instructor Observation

Out of the three classes that chose the student-centered unit several observations stood out. Observations on class 1: The first class chose the overall medium of film. The second class was initially undecided, eventually choosing a theme with three choices and an open creative medium. The third class chose to model their curriculum after the first in choosing the medium of film. All classes experienced an increase in a productive and engaging work ethic with varying

levels of success. The comments that all classes had in common were two fold, one in the area of challenges with time management and the second in the area of a feeling of motivation due to the freedom of choice in their learning. It is the observation of the researcher that although the levels of success were varied in each class, all classes appeared more engaged within the structure of the student led unit.

Student Perspective

These are the findings while interviewing two students in the first class to participate. These two students stepped up to lead the rest of the class and create the initial student-led study guide. It is notable these two students have been Montessori students for many years, therefore more adept at taking leadership roles. These notes depict their feedback from an informal interview.

Question: What was the process of creating the study guide for the class like for you and what were your first steps?

Answer: We began by setting up the essential understanding in the study guide, we did this by asking the class what they wanted to learn. After everyone had input through a brainstorming session, where we wrote every idea on the board, we narrowed the focus together as a class and chose film as an overarching theme or medium. Next we decided as a group to have the freedom of choosing to work in groups or individually. Then we came up with ways to assess and measure through project sheets, proposals, research and daily check-ins. We followed a template for the study guide and wrote it with some input from the class. Some of the study guide was written with guidance from individual students and the instructor. Someone was in charge of

the warm-ups, someone else wrote the study guide, someone else wrote the proposal template and someone else wrote the research questions. It was a collaborative effort.

Critical Eye - Instructional Coach Observations and Interview

On March 17th 2017, I interviewed Marley W. (personal communication, 2017), an instructional coach and teacher at the site the study was conducted. Marley had the unique perspective of having observed classes both before, during and after implementation of the student-driven format.

The following summarizes my conversation with Ms. W.

Considering your observations in the first half of the year and your observations during this student-driven unit what do you think worked well ?

Students appeared to be more engaged and confident in their assignments during observations in the second half of the year during the student-led format. They took more ownership and pride in what they were learning, for example, asking me to look at what they created rather than the teacher telling me to look.

I observed, in one of the sections, far less reliance on the teacher and the teacher being free to extend understanding rather than have to classroom manage.

What would you say is the most noticeable difference in the climate of the classroom?

The teacher being freed up to extend understanding, rather than classroom manage and micromanage, and answer specific questions or review procedures.

What do you think is not working well or could be improved?

The same level of success being reached in all sections/classes.

Why?

This has to do with homogenous grouping, it also has to do with how many Montessori students are in the class - it seemed like the two students who took the lead in making the study guide are both advanced academically *and* had Middle School experience in Montessori.

What are your suggestions on changing or improving? (keeping in mind the goal of student engagement).

First, begin the year with scaffolding, by modeling what you are doing when you draft study guides and explain projects, in order to prepare them for creating their own projects and study guides later on in the school year. In other words, providing them with the practical tools they will need to work independently of you.

This is a cognitive instructional strategy, in which you're teaching the students' a behavior by describing your own process and thinking. You do this naturally when you model and scaffold and explain, however you would be more intentional and direct in this practice knowing you were preparing students in the second part of the year for self-directed learning.

And second as an instructor, being even more hands off. Rather than answering a question directly, remind students where they can find the answer or redirect them to ask a specific peer (for example, freshmen asking sophomores). Teaching students how to teach each other, or using step by step instructions, avoiding shortcuts.

And lastly having the students make the classroom calendar and refer to it always. This could be posted in the classroom or on the Google Calendar.

Themes: What if any themes do you see emerging ?

1. Students finding their roles and in turn finding themselves - by being able to explore using a lot of independence and choice, they are taking more initiative in their work, feeling more comfortable/confident in what they are producing.

2. Collaboration - Majority of students chose to work in groups when given the choice, and since they came up with the project together, they have really taken the lead in working on it together and filling the roles that they excel in or feel most comfortable in contributing.

Themes

There are several themes that emerged from the data. At the completion of the unit of curriculum studied, during which students were required to design and participate in the unit of study, the findings showed that students were motivated to work and interested in what they were working on. There were groups of students who had difficulties transitioning to a self-directed environment. Observation showed a theme of collaboration across the classes.

The surveys revealed that students appreciated having choice and control over both what and how they learned. Overwhelmingly, students reported that they were more motivated when offered the choice of self-direction. While a few students preferred having teacher-led classroom, the majority of activities they chose (more than 60%) were something of interest to them.

Review of Focus Group Findings

The concluding survey included the same questions to assure the data was consistent in its themes. Data were organized and analyzed by the following themes: 1) participants interest level and motivation to work on assignments that are largely teacher-centered with little choice

for student input; 2) participants interest level to work on assignments that are completely student-centered with little teacher presence; 3) changes in classroom atmosphere as a result of implementing the student-centered approach; 4) challenges in students ability to adopt to student-centered approach; 5) suggestions on further improvement.

Chapter 5 Discussion /Analysis

Summary of Major Findings

A learner-centered approach is a step in the right direction towards more engagement in the classroom, with varying levels of engagement and successful outcomes depending on several factors, such as student/teacher collaboration and cooperation, as well as the classroom homogeneous/homocentric makeup. When allowing for more independence some individuals thrived while others, albeit more engaged than with traditional teacher-centered approach, still needed extra input and redirection.

A student-centered learning environment as a structured model for cultivating engagement in high school age students is an effective means in addressing motivation. When students find meaning in the work they pursue in the classroom, the motivation is intrinsic rather than extrinsic.

Comparison of Findings to the Literature

The findings of this study align with the literature. The study compliments research on the relevance a student-centered approach has in regard to motivation and engagement as can be seen in the quote from the New Media Consortium's (2015) "All over the world, schools have been shifting the roles of students from passive consumers of content and knowledge to creators of it. By integrating digital tools in lessons, students are more fluently producing media and prototypes, leading to a greater engagement with learning" (p. 7). This study concurs with previous research affirming favorable outcomes when a learner-centered educational approach is taken.

Previous research on learning that allows for a greater degree of student ownership has been shown to increase motivation and engagement intrinsically. The study agrees with research, which reveals multiple benefits in breaking the traditional teaching pattern and method.

Limitations/Gaps in the Research

The number of subjects involved in the study limited the scope, as did the fact the study was conducted on one school site. Out of the one hundred and twenty original subjects only ninety participated; only three students from two classes were included in personal interviews about their observations and personal experiences in the unit. The sample of students was limited to two grade levels, freshmen and sophomores as these were the grade levels available to the researcher. A larger pool of participants from multiple areas and schools would show if motivation and engagement can effectively be addressed through a student centered approach. The data was limited to the site in which the study was conducted.

Gaps in the research are found on the inequitable distribution of students in classes. The classes studied tended towards homogenized groupings of students through math levels leading to uncertain heterogeneous groupings at the sample school site.

Implications for Future Research

This study suggests and invites further research on the implementation of a more student-centered approach in classrooms to support motivation and engagement as well as ownership and meaning. The findings of this suggests that there are benefits to students who participate in their own learning process from beginning to end. Further research on student-driven curriculum, as-

assessments and outcomes is warranted as a way to support schools in meeting the needs of students who are less likely to be engaged and motivated in the classroom using traditional methods. Additional research should be done to include professional development aimed at training teachers to lead a student-driven model.

Overall Significance of the Study

This study is significant because it shows that a student-centered learning approach can improve and impact both student engagement and interest as well as meaning in an educational setting. Another significance to consider is the sense of empowering both at risk students, as well as those deeply involved in their education with student-led curriculum. The collaborative effect of these students working together towards a common goal is another positive outcome.

A student-centered classroom can make a difference in addressing the motivation factor in multiple ways. First in finding meaningful work, when students find meaning in the work they pursue in the classroom the motivation is intrinsic rather than extrinsic. Switching to a model of “choice”, where a student is allowed to explore content in a meaningful way and make connections intrinsically means their motivation level will automatically increase. This in turn will help to foster life-long learners with a keen interest in education.

Next, by following a self-directed, student-led format students involved will automatically begin taking ownership of their learning and the learning process. When students take part in the creation of their learning, they have a deeper level of understanding and commitment.

By definition, student-centered learning requires developing learner autonomy and independence by putting responsibility for the majority of learning in the hands of the students. When teachers are willing to give up some of their power to empower their students on their path to learning, there is deeper understanding and commitment for the students to learn. The promise of relevance and meaningful work hopefully ensure that more teachers jump on board. This is too often the missing link in education today.

Personal Reflection

This has been a most interesting journey for me as the teacher and researcher. This process has radically transformed my teaching practice. Overall the results demonstrated success in attaining student engagement and motivation in every class that adapted a self-directed format. The exceptions were minor variations in the level of success across classes. From this point forward my plan is to implement a curriculum that includes a student-centered, self-directed model that begins with instructor modeling and moves into a student-centered approach. Clearly the take-away for me has been one of transformation of myself, my teaching style and most importantly my students. Upon observation I note several students whose lack of motivation originally prompted this research and who have fully embraced the student-centered approach to the point of full engagement at every moment inside and outside of the classroom. This alone has been worth the effort of setting up the planing and implementation of the new format. Each of the students in mind demonstrated a complete turn around in their interest level and overall enthusiasm in the classroom activities. The majority of participants experienced success in collaboration (even when working individually), finding their role, finding their passion and excelling in their

own contributions. Overall this was a success, one I plan to repeat with a few changes to improve student outcomes and time management.

About the Author

Dyane Goldman has been a digital media and art teacher since 2001. She holds a California State credential in Art and graduated from Otis College of Art & Design in Los Angeles with a degree in Digital Media. She additionally holds a secondary I & II Montessori credential through American Montessori Society. She has worked in the film and music industries as well as print and fashion before moving to education. Dyane has a passion for working with adolescents and brings industry-level programs and concepts to the high school classroom. Her students learn challenging skills to take into the work place, while finding and expressing meaning in their lives. Dyane currently teaches Digital Media Arts, Film, Design, Leadership and Art in the bay area.

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