

Hamline University

DigitalCommons@Hamline

School of Education and Leadership Student
Capstone Projects

School of Education and Leadership

Fall 2017

A Secondary ELA Classroom Curriculum Study Using Culturally-Relevant, Digital Texts To Increase Student Engagement And Understanding

Marika Belusa
Hamline University

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_cp



Part of the [Education Commons](#)

Recommended Citation

Belusa, Marika, "A Secondary ELA Classroom Curriculum Study Using Culturally-Relevant, Digital Texts To Increase Student Engagement And Understanding" (2017). *School of Education and Leadership Student Capstone Projects*. 116.

https://digitalcommons.hamline.edu/hse_cp/116

This Capstone Project is brought to you for free and open access by the School of Education and Leadership at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education and Leadership Student Capstone Projects by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu.

A Secondary ELA Classroom Curriculum Study Using Culturally-Relevant, Digital Texts
to Increase Student Engagement and Understanding

by

Marika Belusa

A capstone project submitted in partial fulfillment of the requirements
for the degree of Master of Arts in Education

Hamline University

Saint Paul, Minnesota

December 2017

Primary Advisor: Laura Halldin

Copyright by
MARIKA BELUSA 2017
All rights reserved

ACKNOWLEDGEMENTS

Ms. Jana Rieck should be given a cape for her superhero-like attention to detail and endless patience dissecting my Dr.Seuss-like syntactical structures. Also, god bless Grammarly.

Deep thanks to Dr. Justin Grinage for his encouragement to keep going—his challenge to keep researching and reading, and to never stop waking up.

Grateful to my parents who gave up precious time to travel many, many miles so I could sneak away to hunker down and write. Your selfless love demonstrated the endless spring of support you have for me, presently and always.

Elise, my sister and best friend. You are such a bad-ass who inspires me each day by your brilliance and bravery. Thank you for believing in me. I love you so, so much!

To B.R.H and M.F. who made me laugh again and again in grad class; who reminded me that binge-writing is best done with treats smuggled into the library or Starbucks in hand; and who kept me grounded when I was certain I would lose it at any moment...cheers to you both!

R.C.- Your unwavering positivity, affection, and support lifted me up when I was ready to give in. For arriving in my life at exactly the right time, I am endlessly grateful.

Last but never, ever least, my Lydia. You showered me with love and hugs and “you can do it” even when you would rather have me play with or read to you (and I wished the same!). You showed patience and unconditional love so far beyond your years. I just hope watching me has shown you how much *you* are capable of—how much we women can kick-butt and be all that we are meant to be. May you realize your own power early on, and never, ever let it go. *Ich Liebe Dich.*

TABLE OF CONTENTS

Chapter One: Introduction.....	1
Explanation of the Research Question	2
Personal Journey and Significance.....	3
Arriving at my philosophy of teaching.....	5
Engaged transformative learning.	6
Necessity and Relevance of the Research Question: Personally and Professionally.....	7
Cultural relevancy and resilient learners.....	7
Need for change: how engagement can help.....	8
Constructivism concepts for engagement.....	9
Necessity and Relevance of the Question: School-Wide Implications.....	10
Summary.....	11
Chapter Two: Literature Review.....	12
Introduction.....	12
Pedagogical Framework: Theoretical and Conceptual Histories	13
Multicultural education (ME)	14
History of constructivism.	15
Constructivism: Knowledge and scaffolding.....	15
Constructivism: curiosity and inquiry-based learning.....	16
Culturally Relevant Pedagogy (CRP).....	17
CRP and engagement.....	18
Culturally relevant texts.	19
Relevancy of texts beyond the “mirror” definition.....	19

Section Summary: Connections of Constructivism and ME to CRP.....	20
Multicultural education and CRP.....	20
Constructivism and CRP.....	20
Neuroscience and Education.....	21
Neuroplasticity.....	21
The effects of stimulus on the brain.....	22
Jungle-like brain and the need for stimulus.....	23
The effects of boredom on learning and the brain.....	23
Brain functioning and cultural values.....	25
Neuroplasticity and digital learning.....	26
Section Summary: Neuroscience implications for educators.....	27
Digital Tools in the Classroom.....	27
Videos as digital tools.....	28
YouTube to connect concepts: A college case study.....	29
YouTube in the ELA classroom: A case study.....	30
Constructivism in multimedia learning: A case study.....	31
Students are digital natives; teachers must adapt.....	31
Section summary.....	32
Research Summary.....	33
Gaps in Research, Connections & Implications for this Study.....	34
Chapter Three: Project Description.....	38
Introduction.....	38
Project Description and Methodology.....	38

Project Overview.....	39
Timeline	39
Project layout.....	39
Assessments.....	40
Summative Assessments.....	40
Formative Assessments.....	41
Unit outline chart of outcomes and texts.....	42
Text Requirements and Definitions	42
Definition of culturally-relevant texts.....	43
Definition of “text” as a digital tool.....	43
Research Project Theories.....	44
CRP components applied to the framework.	44
Mirror-window continuum principles.....	44
Constructivist theory and digital learning application.....	45
Understanding by Design as curriculum map.....	46
Setting and Participants.....	46
Classroom breakdown and demographics.	47
Breakdown of communities served by the high school.....	47
Summary.....	49
Chapter Four	53
Introduction.....	51
Applications and Implications of the Literature Review.....	52
Window-Mirror continuum as a metaphor.....	52

Future implications for the window-mirror continuum.	53
Implications for digital texts used in the classroom.	54
The Brain and Digital Tools	54
Implications of digital tools as a part of the brain.	54
Policy implications for digital texts and tools.....	55
Limitations for digital platforms and neuroscience.	55
The effects of boredom on the brain.....	56
Implications of the neuroscience research and recommendations.....	56
Pedagogical theories and their connection to digital texts.....	57
Other application and limitations.	57
Implications for Effective Teaching.....	58
Sharing my work with others	59
Summary	60
References	62

CHAPTER ONE

Introduction

You can't be what you can't see.

-- Marian Wright Edelman, Founder of Children's Defense Fund

Engagement in meaningful work, initiated and mediated by skillful teachers, is the only high road to real thinking and learning."

--*In Search of Understanding: The Case for Constructivist Classrooms*

Twenty-first century students are digital natives. They text, connect to YouTube, Facebook, Twitter, and use multiple ways of social networking...To be a superhero and meet the needs of diverse learners...we must embrace the new media and use it to support our students."

--*Clash!: Superheroic yet Sensible Strategies for Teaching the New Literacies Despite the Status Quo*

When I look out at my 11th-grade students, the image that more increasingly confronts me is that of teenage faces lit up by the glow of electronic devices, or white headphone cords peeping between hair strands. Rewind to my first year teaching in 2005 and, while the room is absent of cell phones, it was still filled with far too many blank stares, nail picking, and seated apathy. Unfortunately, this is a common occurrence that plagues many classrooms. Student engagement has always been and continues to be one of the most crucial, yet elusive, keys to deep and lasting learning. This elusiveness is why I wish to examine the connection between engagement and the digital texts that reflect the age and place my students inhabit. The question that will be explored through this curriculum project is: *How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th-grade English classroom?*

As Ginsberg (2014), school principal and teacher-educator, states "...sustaining student motivation and engagement in learning is elusive--vulnerable to distraction, boredom, and difficulty" (p. 26). Recently, this quest to sustain motivation and

engagement has become more complex with shifting demographics, standards-based curriculum, and the unreliability of readily available technology. What has become apparent is that the old and ever-present task of engaging students faces new challenges which require educators to change our teaching methods, both in what we teach and the medium we use to do so. The *what* we teach of this study seeks to explore texts which better represent students with diverse backgrounds, learning styles, and needs. The medium in which to present these heterogeneous texts come from digital sources, mean to engage this generation of young, digital natives better. Marrying these ideas with students who feel underrepresented by texts and themes in current curriculum, and yet knowing the importance representation plays in engagement and achievement, led me to create a curriculum that linked engagement to the use of student-relevant, digital texts.

Edelman's "You can't be what you can't see" becomes more true and pertinent every day. Offering texts in a medium which students are familiar with by using texts they are familiar with, to offer alternatives and views they may not *yet* be familiar with, but essentially need for identity and academic success, is what I have aimed to change in this curriculum project.

Explanation of the Research Question and Project

Often my students want to know why they are learning something, how it will help them later in life. While my frequent verbal attempts at sharing pedagogical reasoning and real-life connections of curriculum and instruction pacify some, it is not enough to enable students to develop equitable ownership in the classroom. The most meaningful way to accomplish engagement is to have them become active participants in their own learning. Students must be shown how, and in fact encouraged, to critically

analyze the world around them. This process introduces a skill which will be carried into every aspect of life; this is meaningful learning. Once students realize this, I no longer have to “fight” or convince them to complete tasks as they are more likely to be active participants in our classroom. My desire to establish this becomes the main motivation for my exploring curriculum that features culturally-relevant digital texts, which will reflect their world as both diverse citizens of a global society, and as digital natives requiring authentic engagement.

Personal Journey and Significance

Throughout my teaching career, my desire to create and sustain--in both my students and myself--a capacity for empathy, a thirst for knowledge, and a way to make those two work in conjunction with one another has driven my career. It is from this focal point that my philosophy of teaching has evolved: engage students in every way possible to ensure that deep and lasting learning takes place, and to see education as freedom and power. One of my greatest teaching role models, educator and author bell hooks [sic] states: “the thoughts and ideas that engage you when you think critically can be something that you go back to throughout your lifetime” (“bell hooks urges...”, n.d.).

In my first year teaching, I was young and naive and idealistic and had yet to realize how key student engagement is to all facets of learning. I was convinced every student was like me: curious, self-driven, and independent. I was convinced every student would automatically want to learn, and with wild abandon!, even though the curriculum was lack-luster and pretty Eurocentric. So much of the curriculum and pedagogy was the same from my education: dead white dudes, followed by a reading comprehension test, followed by an essay or discussion on content topics. No wonder they weren't engaged or

seeing the deeper life lessons I so desperately wanted them to notice. They were frustrated. I was frustrated. We were all grasping for something more, something better.

During my second year of teaching, I happened upon a free workshop on teacher beliefs and classroom practices. During the session in a brightly lit room of a local college campus, the lecturer keyed in on principles of Culturally Relevant Pedagogy and critical pedagogy--pedagogical practices I had not heard of until that point. In these few short hours, my understanding of learning, along with my teaching approach was completely altered. The tenants of these philosophies were exactly the framework elements of design I was missing.

Suddenly, the inequities and disservices being ignorantly committed by me in my classroom were illuminated. While I strived to see each learner as an individual, in many ways I was treating them equally rather than equitably, which also meant that many assumptions were being made on my part. These assumptions came undetected from my upbringing, from my own cultural, racial, and socioeconomic background. For example, it occurred to me that saying things like, "You just need to work harder," or "There's no excuse for not getting work done," were problematic. What appeared to be sincere and innocent phrases which came from *my* experiences as a middle-class white woman, they did not necessarily carry over to my students who came with *their* own experiences and beliefs systems, which may or may not coincide with mine. Further complicating things was the fact that while some of these ideas may be true, they address beliefs and values that are not so simple or straightforward, and that is in fact often more harmful than helpful; they are ideas that support and enforce white privilege and supremacy. These ideas were exactly the ones I was teaching in my American literature course that would

engage students in real discourse and critical thinking; my blind reinforcement of those was merely validating the privileged in my classroom, while often creating a barrier between myself and my students of color or those living in poverty. Those unchecked, biased and ineffective teaching methods certainly were not achieving any of my educational values of freedom, empathy, or critical thinking.

After that “aha!” moment, I began seeking more professional development centered around equity and social justice education. The journey led me to workshops on the use of inclusive language in the classroom, choosing culturally-relevant texts to engage students, classroom management techniques for diverse student populations, dismantling power and privilege through text study, examining my privilege, and more. It also led me to teacher-training social justice models and to serving on my school’s equity team.

My unshakable belief that public schools are places of freedom and democracy, and that I could use my power as an educator for good, helped me see how dynamic my classroom could be. Even with all this new theory and awakening, getting students as fired up as I continued to pose a challenge. If engagement is the door through which students’ minds open, ultimately leading to their empowerment, then culturally relevant digital texts were to become my key.

Arriving at my philosophy of teaching. As overly ideal and cliché as it sounds, I truly believe that education is the pathway to peace, justice, and equity for our world; however, students have seen this and become active participants in their education for this to work. Educators must also examine their own beliefs and work to create dynamic classrooms. Through my own painful self-discovery and awakening, I came to know that

assisting students on their knowledge path, engaging them, listening to them, and helping them uncover their agency is the true path of education. As Minor Myers, Jr., an educator and advocate of Liberal Arts education said, “Go into the world and do well. But more importantly, go into the world and do good.” We educators have so much power--to help or harm. It is my deepest belief that equipping students with the tools necessary to become critical thinkers and consumers is the only way equity and justice can become a reality in our world. By teaching them the difference between doing well and doing “good” as Myers states it, we can help them become agents of positive change.

My deeply rooted passion for social justice and equity begins in the classroom with student engagement. An engaged student is a student who opens their mind to learning; an engaged student shares their own knowledge and experiences with the class; an engaged student will enrich our classroom experience, creating a community of learning; an engaged student is not only be motivated to learn but is deeply invested in the process, becoming an advocate for social change. An engaged student is empowered to turn every place into a transformative space.

Engaged transformative learning. bell hooks [sic] also writes about “engaged transformative learning,” which she defines as the process by which students are engaged and invested in their learning process that turns them into critical thinkers and life-long learners. As she says in her book *Teaching Critical Thinking*, “the thoughts and ideas that engage you when you think critically can be something that you can go back to throughout your lifetime” (2009, p. 21). Students meaningfully engaged in the education process become life-long, engaged learners. This motivation stems from my experience with my parents and high school English teacher, all of whom invited me to curiously

explore the world. Best practice research further supports this ideology by demonstrating that critical thinkers are those that succeed in various areas of performance in and out of school.

These collected experiences, research, and references call me to turn my classroom into a place of deeply engaged learners. By linking a relevant digital text with broader anchor texts, the hope is my classroom will make this transformation.

Necessity and Relevance of the Research Question: Personally and Professionally.

As students become harder and harder to reach due to “multi-tasking” and spliced attention, engaging them becomes even more essential to ensure meaningful learning. Incorporating a culturally-relevant, digital text, often which is shorter, may be the key to increasing engagement, leading to deepened understandings. One reason is that this kind of text creates a sort of novelty effect. Constructivism education theory, along with the most recent neuroscience research in digital learning and boredom, claim novelty is essential for engagement to occur. Additionally, the culturally relevant component of the digital text will be driven by students' interests and knowledge, another key concept for engaging students that is argued in Constructivism and Culturally Relevant Pedagogy (Brooks & Brooks, 1999, p. 61; Ladson-Billings, 1995).

Cultural relevancy and resilient learners. Another reason deepening student engagement is an imperative focus for me is that the 11th-grade English lacks culturally relevancy for most of the student population in the class. It is taught chronologically, the readings are difficult, and it mostly represents a privileged, white male narrative. The buy-in tends to be low with mid-level 11th-grade students because the texts are not relevant to them because they are outdated and the authors do not "look" like them.

Content and practice that directly reflect and respect a students' home culture, knowledge, and experiences are crucial to a culturally-relevant classroom, as argued by Gloria Ladson-Billings (1995). While I attempt to make meaningful study guides and connect with deeper, universal themes, including many activities and real-life connections, it is often still a struggle to get students to read or to finish assignments.

Resilient learners, those who can take risks and overcome obstacles, must see themselves reflected in the classroom texts. The use of culturally relevant digital texts will allow me to make the district-driven curriculum a culturally relevant one that can appeal to all of my students, particularly those who have been systemically marginalized. Educators and researchers, Gay (1995), Ladson-Billings (1999), and Oran (2009) point out again and again that students from diverse backgrounds must develop success from which to build confidence. To do this, they must see themselves and their home cultures validated through varied texts and teacher instructional choices. These students' need to come to know the classroom as the one peaceful place in their day or world that sees them as knowledgeable and valuable individuals capable of learning and achieving "critical consciousness." In a world that is constantly oppressing, and in a school system that furthers this cycle, a culturally relevant classroom can offer the refuge and empowerment a student so desperately needs. My classroom can be this space where safety and engagement and learning go hand-in-hand.

Need for change: how engagement can help. In a country where the achievement gap between white and black students is at an all-time disproportionate high, and a state where this gap in achievement, housing, jobs, and wealth are some of the largest in the nation, it becomes increasingly necessary for schools to incorporate

Culturally Relevant Pedagogy (United States Census Department). It is a time when by the year 2025 experts claim more than 50 percent of public schools will be comprised of students of color (Darling-Hammond, 2010). However, according to the National Center for Education Information, in 2011, 84 percent of all teachers in the U.S. were white, which had only dropped slightly from 1986 when that number was 91 percent (Feistritzer, 2011). Indicating little is changing in regards to who does the teaching, but much is changing as to who is being *taught*. These two facts are at a disconnect. Teaching must reflect the student population for true equity to occur. If these numbers are to be altered, then we must empower our students as critical thinkers and agents of change.

Engagement through culturally relevant digital texts then becomes a key role in reaching that goal. By infusing the anchor texts with interactive, highly relevant texts that are timely and representative of a wide variety of faces and voices, students more deeply connect with the larger learning outcomes and concepts. Students that are engaged throughout the lesson are much more likely to become active participants in their learning, and thus to become the critically-conscious agents of social change G Ladson-Billings (1995) presents as a key component of Culturally Relevant Pedagogy (p. 160). Here again, my core teaching philosophy is upheld in believing that the actualization of equity and social justice begins in the classroom.

Constructivism concepts for engagement. Additionally, the frequent use of a digital and relevant text becomes successful through its tapping into the "learning cycle model" in Constructivist teaching. By beginning with an interactive introductory text, it "provides an open-ended opportunity for students to interact with purposefully selected materials" (Brooks & Brooks, 1999, p.116). This type of start asks students to focus on

questions they may have regarding the larger text, as well as to set students up for new learning. Studying the smaller, related texts asks students to "...work on new problems with the potential for evoking a fresh look at the concepts previously studied" (Brooks & Brooks, 1999 p.117). Thus compelling learners to engage and contribute to the understanding of larger themes through scaffolding and active participation, which is featured throughout the curriculum project.

Necessity and Relevance of the Question: School-Wide Implications

Sharing this curriculum outline has the potential of helping high school English teachers everywhere, particularly other teachers at my school. Our class sizes are quite large, averaging 38-40 students who have a wide range of reading, writing, and comprehension levels. We have a higher number of students of color and those on free-and-reduced lunch than in other grade levels, due in part to tracking. We also have a higher number of truant students and resilient learners; engaging these students in learning is absolutely crucial to my equity agenda and to ensuring their success in life.

Implementing these small, more interactive texts first engages students, then allowing teacher collaborative teams to work together and plan so that the digital texts a) always meets the text criteria outlined in Chapter 3, and b) is present in all of our trimesters and units. Since the curriculum mapping is based on Understanding by Design (UbD), it relies on instructor reflection, so deciding on culturally relevant digital texts as we plan and adapt units encourages us to continuously evaluate our learning outcomes and goals, adjusting to students' and teachers' needs. Hopefully, allowing us to see the deepened learning and understanding.

Summary

Engaging students in learning is one of the most difficult and imperative tasks teachers face today, particularly in a secondary classroom. One way to overcome this challenge can be through novelty, such as the frequent incorporation of a digital text. In this way, students can look forward to something new and different each day. Another way engagement can take place is through the use of culturally-relevant texts. These texts relate to the students' diverse and varied needs, backgrounds, and learning styles, an essential component to creating equitable and social justice-driven classrooms. Culturally relevant texts ensure not only “buy-in,” but also encourage active participation in the classroom. Through the regular incorporation of culturally relevant digital texts, it is my hope the engagement will increase, and thus a deeper understanding of concepts.

A review of literature relevant to my areas of study will appear in the next section. Some of the research examined, including both quantitative and qualitative research, come from the following areas: Educational theories in Constructivism and Culturally Relevant Pedagogy; how texts can help students connect through a window-mirror selection approach; current neuroscience on how the brain interacts with digital texts; and the ways in which boredom can both help or harm the developing brain.

CHAPTER TWO

Literature Review

Introduction

How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th-grade English classroom? In this section, the above question has been broken up into segments which have more deeply explored. In particular, a look at the research that both supports and opposes the question will be examined.

To begin, the history and basis of Culturally Relevant Pedagogy (CRP), which has its origins in Multicultural Education (ME) and Constructivism, will be presented. Key principles of each, such as a respect for students' home cultures, students' previous knowledge, and natural curiosity, have also been examined in relation to its building of CRP philosophy that includes a call for relevant curriculum (Brooks & Brooks, 1999; Dover, 2013; Fosnot, 2007).

Experts in CRP call for classrooms to be inclusive of students' home cultures, or to represent and honor all aspects of their lives; to view students as knowledgeable beings; to challenge students to achieve; and to empower students to be their own agents of change (Gay, 1996; Ladson-Billings, 2001). However, it was found that sometimes a text must go beyond this criteria to be most relevant to students in today's digital era.

Based on these claims, culturally-relevant texts were determined to be ones that represent the diverse student population and their needs. These texts build off of students' current knowledge in order to deepen understanding and maintain rigor. In other words, they are texts that are relevant to students' lives (Ladson-Billings, 2001). This definition

was further supported by the arguments of the Constructivist instruction model, which advocates for student relevance and engagement to ensure deeper learning (Brooks and Brooks, 1999).

Next, Neuroscience and effects of technology in learning become another main component of research. Exploring what scientists know about how the brain learns, about how brains engage in learning was crucial in examining student engagement. Emerging research is finding that boredom can literally harm the brain, that digital tools can be viewed by the brain as extensions of themselves and thus assist in the learning process, and that one's cultural beliefs and identity actually has roots in neurons and synapses of the brain. The findings are quite new and need to be explored further, but do support many of the claims made by educational theorists, as well as the focus of this study.

Research on the use of technology in the classroom and digital learning tools, such as YouTube, is helpful in determining not only the digital text usage but further assists in defining "engagement" (Trier, 2007; Wynn, 2011). For example, studies on both successes and failures of the implementation of digital texts have helped to determine optimal text choices.

Finally, a look at what these studies have concluded, in addition to what pieces are missing, and the implications these findings have on this project regarding culturally relevant digital texts will be presented.

Pedagogical Framework: Theoretical and Conceptual Histories

Culturally Relevant Pedagogy (CRP), also known as culturally relevant education or culturally teaching, must be the starting point for any discussion on how culturally relevant texts are defined and chosen for this study. CRP is mostly credited to Geneva

Gay and Gloria Ladson-Billings, both of whom have built their career upon its premise and work. It was born in the 1990s out of the need to move beyond Multicultural Education (ME), whose principles and ideas are most closely associated with Banks (1995) and Nieto (2004).

Multicultural Education. The foundations of ME harken back to the 1960s Black civil rights movement when, after integration, a demand for schools to create equitable education and curriculum arose. Thus, a focus on curricular content, classroom practices that promote equity and academic achievement “...across racial, ethnic, and social class groups” was created (Dover, 2013, p. 5). Beyond this, ME education also emphasizes advocacy and empowerment of youth.

However, critics argue this approach does not go far enough to challenge social norms, or for true curriculum and social reform to occur. Also, it is often inconsistently practiced given its nebulous definition that allows for many interpretations. So then, ME ends up focusing more on incorporating multicultural content, which often becomes a checklist of posters, readings, and cultural celebrations (think “Taco Tuesday”), rather than challenging students and teachers to critically examine the world and become agents of change (Dover, 2013; Tuck, & Gaztambide-Fernandez, 2013). Parents, teachers, and other critics advocate for more consistency and emphasis on teacher’s self-reflection, along with academic rigor need to take place to ensure equitable education systems, which is where ME is limited and CRP and social justice education (SJE) spring from. These approaches will be explained later. First, a look at Constructivist theory which also forms a framework for CRP.

History of Constructivism. Constructivism is based mostly on the work of Jean Piaget work in relation to how cognition, not merely behavior, influence learning. While Piaget originally began from a behavior framework, he quickly shifted with the emergence of new psychological and scientific findings (Forsnot and Perry, 2005). Piaget recognized that there was a need to move beyond simple behavioral strategies as students and educators needed deeper and more meaningful learning connections to occur.

Constructivism then began as a response to education theory for a connection between cognitive research and behavior research. This pedagogical approach was directly born out of the need to engage students in the learning process, to offer interactive academic rigor, and to ensure true and deep learning (Brooks & Brooks, 1999; Fosnot & Perry, 2005). Thus, a look at the emerging science of learning and the brain reveals how students best learn and how teachers could best adapt to make this happen will also be explored later.

Other key components of Constructivism include appealing to human's natural sense of curiosity, along with inquiry-based learning led by students' interests and needs, where students become leaders, and the teacher takes on a more facilitator role. The need for novelty in the classroom and the importance of dialogue and collaboration between and among students and instructor also play major roles in Constructivism theory (Forsnot, 2005; Brooks & Brooks, 1999). Each of these aspects will be explored in regards to its appearance in CRP as well.

Constructivism: Knowledge and Scaffolding. Constructivism argues that humans construct their own understandings of the world in which they are a part of, making sense of their world by basing it off of previous experiences (Brooks & Brooks, 1999; Gould,

2005). Therefore, the main component, to begin with, is to view students as knowledgeable and storied beings, leading the instructor to scaffold learning. Scaffolding is defined as structuring new learning from previous existing foundations of learned material, instruction and materials based on what students already know and are comfortable with (Brooks & Brooks, 1999; Gould, 2005, p. 103).

For example, if a teacher in an English classroom is introducing allusions as a literary device, she may begin by having students identify allusions in pop songs. As students examine texts they already know and love, this allows them to see allusions in contexts they understand and feel familiar with; they then will be more open and able to identify allusions in works that are more unfamiliar. Beginning with what students already know also approaches learning from the students' point of view, another key component in both Constructivism and the incorporation of culturally relevant texts (Brooks & Brooks, 1999; Gould, 2005; Ladson-Billings, 1995).

Constructivism: curiosity and inquiry-based learning. Curiosity not only empowers students but also increases student engagement and learning. When students are intrinsically motivated to learn, they begin to move beyond the knowledge and comprehension stages of learning and into the analysis, synthesis, and evaluation stages of learning (*BloomsTaxonomy.org*; Brooks & Brooks, 1999). This idea of cultivating natural curiosity has led to the adoption of an inquiry-based or concept-based approach by Constructivists. Having students ask questions or explore ideas within a conceptual framework provided by the teacher of the curriculum, allows students to have a stake in their learning. It also translates into high levels of student engagement. Once again,

students are seen as knowledgeable beings who desire to learn at the core and are then asked to be active participants in the classroom (Brooks & Brooks, 1999; Forsnot, 2005).

In an ELA classroom, this could consist of students designing research questions before beginning a research project. It could be a unit where the teacher presents the context of a book that will be studied, sharing with students the big ideas or concepts that they will acquire, but then allowing students a variety of ways to read and explore the text. In other words, beginning a unit where students ask questions of the text allows students to approach it with curiosity and high-interest levels. Rather than the teacher dictating what will occur and how it will happen, students are allowed to bring in their previous knowledge, particularly their knowledge of themselves as learners, and to approach the text as a hunt for connections and deeper understanding (Gould, 2005).

Culturally Relevant Pedagogy. CRP takes the ME idea that texts and instruction must be relevant to students and steps it up by arguing for academic rigor and teacher self-reflection as critical pieces of pedagogy. CRP emphasizes teacher identity, family engagement, student relevancy, and academic skills (Dover, 2013; Gay, 1996; Irvine, 1990/2001; Ladson-Billings, 1995). The main premise of this approach claims teaching must be that which is relevant to students' understanding and experiences, particularly culturally diverse students. Teachers must be reflective, flexible, and willing to examine their own techniques and ideologies (Gay, 1995; Ladson-Billings, 1995; Lopez, 2011).

Furthermore, CRP honors students' home culture, values, beliefs, and experiences; strives to challenge students, views students as knowledgeable, capable beings, and should contain some element of empowerment or action (Ladson-Billings, 1995; Gay, 1996; Irvine, 2010). Gloria Ladson-Billings' (1995) work, especially, has three

components, which she argues make it different from critical pedagogy in that there is a collective action piece. These components are ensuring "academic success" for students; developing and supporting "cultural competence" in students, and empowering students to take action on not only an individual level but also on a societal level, referred to by Ladson-Billings (1995) as "collective consciousness." In other words, a culturally inclusive classroom results when a teacher is culturally-aware *and* meeting the additional criteria set forth above. These combined pieces ensure academic success and empowerment learners to become agents of social change.

CRP and engagement. CRP argues when teaching is relevant to students and meets these three components, students will be engaged in the learning process (Irvine, 2010; Ladson-Billings, 1995). They will feel represented and safe, more likely to "buy in" and become independent learners and thinkers in their own right (Ladson-Billings, 1995; Gay, 1996; Irvine, 2010). When students see themselves reflected in the work we study, which unfortunately happens far too little, especially in American literature, they are apt to tune out, or worse to lose hope. CRP offers a way of shifting this dynamic. It allows students to feel culturally competent in the knowledge they bring from their own home cultures, thus leading to a sense of empowerment. When feeling represented and empowered, students are more like to achieve academic success (Gay, 1996; Irvine, 2010; Ladson-Billings, 1995). The teacher can then transfer this into group empowerment ("collective consciousness") so that change can take place on a larger scale. Collective consciousness empowers students, assisting them in becoming independent critical thinkers, a crucial goal of CRP (Gay, 1996; Irvine, 2010; Ladson-Billings, 1995).

Culturally relevant texts. Ladson-Billings (1995) and Gay (1991) insist that teachers and curriculum receive emphasis in order to ensure academic success and student empowerment. Texts and practices in any classroom should directly reflect the student population. These texts are meant to be ones that will represent the diverse population of students' needs; texts can be chosen by both student and teacher (Gay, 1996; Irvine, 2010; Ladson-Billings, 1995;). The texts will be ones that both reflect students' home culture and experiences, and those which open knowledge into others' experiences. By defining it in this way, the study seeks to only empower and validate students, a key component of CRP, by engaging students first (Gay, 1996; Irvine, 2010; Ladson-Billings, 1995).

Relevancy of texts beyond the “mirror” definition. The idea of relevancy is an important aspect of CRP, as educators are required to choose curriculum and instructions that is relatable and meaningful to students' experiences and lives (Gay, 1996; Irvine, 2010; Ladson-Billings, 1995). However, this view of relevancy can be somewhat limiting for students in its assumption that all readers/viewers are alike. However, researcher Katie Scieurba (2014/15) found that relevance lies in a sort of “mirror-window continuum,” where some students connect with students that look like their reality (mirror), while some students connect more with texts that allow them to look in on another's life (window). In her research work with Black adolescent boys and literacy in an urban all-black, single-sex school, she explored the limitations of CRP relevant texts in only emphasizing the “text as mirror” view. As she found in her work with both students and teachers, it was important to offer texts that were both mirrors and windows, not only for engagement but also for increasing empathy and sympathy (Scieurba,

2014/15). This mirror-window continuum then becomes a crucial aspect to increasing literacy and academic success among adolescent black boys at the school. It also calls for a mix of texts which ensures that students accomplish other principles of CRP, such as advocacy or “cultural competency” (Ladson-Billings, 1995; Scieurba, 2014/15).

Scieurba’s study and exploration of the mirror/window continuum highlights an area that needs to be further explored in regards to culturally relevant texts in CRP. This study will seek to use the research presented here to broaden the definition of a relevant text.

Section Summary: Connections of ME and Constructivism to CRP

Multicultural Education and CRP. While ME functions as a pedagogical framework, particularly focused on providing multicultural content, Constructivism functions as a cognitive learning theory. It is less concerned with specific material and more preoccupied with teacher practices based on student cognition. So while CRP was partially born out of the need to move beyond ME, it was also strongly based on many principles of Constructivism, including the key components presented above.

The flexibility yet rigor of these components offer ways in which to ensure optimal learning for students; however, this very appeal is also where CRP proponents argue the need for cultural awareness and relevance comes in. Suggestions on what kind of content to teach---particularly that which will offer an equitable and empowering education for all students is where CRP overlaps with Constructivism.

Constructivism and CRP. Key components of Constructivism theory and practice, which were adopted by proponents of CRP, include student-centered classrooms that are driven by student-inquiry where the teacher functions are model and facilitator,

introducing novelty into the classroom so as to encourage curiosity and engagement, and collaboration and cooperation between and among peers. Students are seen as individual, knowledgeable beings whose experiences and previous knowledge are taken into account in every lesson and unit. Through the concept of scaffolding, each new concept that is taught first begins with a connection made to something familiar and known to students. Not only does this build confidence in the learner, but it also helps deepen connections, building bridges to new concepts and ensuring students' learning. Additionally, viewing students as knowledgeable, curious beings allows them to take ownership of their learning process and experiences, guaranteeing differentiation of instruction (Brooks & Brooks, 1999; Forsnot & Perry, 2005; Gould, 2005). All of which become the foundation for CRP.

Neuroscience and Education

Neuroscience and education have a rather tumultuous history together. For a long time, pedagogy was not reliant on the science of the brain. Initially, educational theorists examined learning from a behavioral standpoint rather than from a science-based one, though Piaget later began to link cognition and learning practices, hence the creation of Constructivism. In part, the switch in thinking is due to emerging technology that enhances and enlightens the field of neuroscience (Sylwester, 1995; Worden, Hinton & Fischer, 2011).

Neuroplasticity. The implications of neuroscience on learning are crucial to education and educational practices. One example of emerging research that has important implications for education is the idea of neuroplasticity. For example, researchers know that the brain changes with use, throughout our lifetime; the brain's

ability to change throughout a person's lifetime is referred to as plasticity (Goswami, 2004; Worden, Hinton & Fischer, 2011). Mental concentration and effort alter the physical structure of the brain. Our nerve cells (neurons) are connected by branches called dendrites. There are about 10 billion neurons in the brain and about 1,000 trillion connections. As the brain is used, certain patterns of connection are strengthened, making each connection easier to create next time, which is how memory develops (Goswami, 2004; Worden, Hinton, Fischer & 2011). Stimulating the brain encourages plasticity because it fires multiple neurons together, building stronger networks, higher recall, leading to deeper understanding. Ultimately this leads reinforces connections (Goswami, 2004; Widstrom-Landgraf, 2014; Worden, Hinton & Fischer, 2011).

Plasticity also allows for connections to be drawn across areas and knowledge (Goswami, 2004; Worden, Hinton, Fischer, 2011; Widstrom-Landgraf, 2014). For example, connecting the experiences or lesson of a television show to a story read in class. When connections are made, the brain is stimulated, making it more likely to remember, and thus engage in learning.

The effects of stimulus on the brain. Neuroscience is continuing to look at the effects of stimulus on the brain and to redefine what this means in light of the digital age. Particularly, there seems to be a correlation between novelty being introduced to the brain--as discussed in the boredom section below-- and that "new" item shocking the brain into reacting (Harrison, Tufts & Strayer, 1974; Willis, 2008, 2014). Emotionally positive stimulus especially lead to an emotional connection being made with the material or item which caused this feeling. Thus, the positive association between material and the

classroom can be translated to students' positive association with learning and school (Willis, 2014).

Jungle-like brain and the need for stimulus. The role stimulus plays in education is further highlighted by Sylwester (1995), in his book, *A celebration of neurons: An educator's guide to the human brain*. He argues that the brain is messy and therefore needs messy stimuli. Sylwester references Nobel Peace Prize biologist Gerald Edelman's model of the brain "...as a rich, layered, messy, unplanned jungle ecosystem" as a way to understand the complexities of the brain, and thus educators' needs to meet it with an array of "messy strategies" (p.22). "It [Edelman's theory] suggests that a junglelike brain might thrive best in a junglelike classroom that includes many sensory, cultural, and problem layers that are closely related to the real-world environment in which we live" (Sylwester, 1995, p.22). The reason this messy, jungle-like approach works is because it stimulates neural networks in the way the brain is already wired (Sylwester, 1995).

The key implications here that complement Constructivism and CRP theories are the brain's need for "real-world environment" to be layered among cultural experiences. Additionally, "sensory" is not only supported by the need for the brain to find positive stimulation, but also by the use of digital texts to promote sensory and cultural experiences amidst real-world connections (Sylwester, 1995).

The effects of boredom on learning and the brain. Boredom, stimulus, and the effects these two factors have on a brain has often been a mix of the benefits and harms, yet is crucial to educational practices. As neurologist and researcher Judy Willis (2014) explains in "Neuroscience Reveals that Boredom Hurts," emerging research demonstrates

the long-term harmfulness of boredom on the brain. For example, when students are asked to focus on and learn material that seems irrelevant or uninteresting to their life, they begin to lose pleasure in learning; they begin to feel hopelessness and powerlessness, and thus their brains begin to associate school with boredom and harm. Also, neuroscientific research on boredom is linked to brain stimulation, plasticity, and motivation (Willis, 2014; Worden, Hinton & Fischer, 2011).

In fact, boredom and lack of engagement in schools can lead students being unable to learn the material deeply, and can sometimes lead to acting out or tuning out (Willis 2014). What leads to boredom in school? Essentially, what neuroscientists are finding is that when students do not find the material interesting or relevant to their lives, they report being bored. Class after class, year after year, this has long-term effects on their ability to engage and retain information, essentially harming the brain (Willis, 2014; Eastwood, Frischen, Fenske & Smilek, 2012). Since there is no connection between "intellectual arousal" and "external stimulation," the brain cannot engage in any pleasurable, satisfying activity (Willis, 2014, p.29). The brain, therefore, begins to categorize that activity or event into a negative association category, which will be applied to any similar situation (Harrison, Tufts, Strayer, 1974; Sylwester, 1995; Willis, 2008, 2014;).

Additionally, the experience of being bored creates a sense of powerless in learning. When students are exposed again and again to material that their brain sees no merit in, it goes into a sort of sleep/survival mode (Willis, 2014). When the amygdalae, which controls emotions, is set off by stressors, such as boredom, it loses communication with the prefrontal cortex, which is in charge of processing and reflecting on information. This

process can result in an involuntary shut down of the brain, in other words, students may appear to be unengaged or may become a behavior challenge (Willis, 2014).

Neuroscience research regarding the harmful effects of boredom is contradictory to theories and often beliefs held by educators that boredom is the fault of students. The new information is concluding that while boredom may be related to experiences and environment, there is also a cognitive connection piece that cannot be ignored.

Additionally, the effects of boredom on the brain go beyond mere stimulation and plasticity. The research regarding the harmful effects of boredom on the brain makes suggestions as to how teachers and schools can avoid this phenomenon from happening. These include project-based and inquiry-based learning, allowing “teachable moments” to occur in the classroom, finding interactive ways to engage students in the classroom, and allowing students to have a vested interest in their education and learning process. All of these suggestions on how the brain best learns, and the ways to avoid harmful brain boredom, are corroborated by CRP and Constructivist theories, which advocate for these very methods as well.

Brain functioning and cultural values. An additional piece of neuroscience research and transcultural psychology is finding cultural practices and beliefs not merely to be behavioral as previously thought. Rather, culture is cognitive as well, meaning beliefs and values are hard-wired into the brain. The brain becomes involved in the cultural adaptation process through repeated reinforcement and engagement so that the brain begins rewired to act and perceive the set of cultural beliefs/values (Ginsberg, 2014; Kitayama & Uskul, 2011).

These findings have a significant impact on educational practices as it reinforces the necessity of teachers being aware of and responsive to students' cultural backgrounds and upbringings. The implications that a person's cultural beliefs and values live not only in his/her behavioral choices but also as brain pathways and understanding is a new and significant one (Ginsberg, 2014; Kitayama & Uskul, 2011). Again, choosing culturally relevant texts and classroom experiences become that much more crucial as students' brains will respond best to that which is already wired in them, not only for engagement and relevancy purposes but also when creating meaningful connections (Ginsberg, 2014; Kitayama & Uskul, 2011).

Neuroplasticity and digital learning. Much research in the field of neuroscience and education has been focused on the negative impact digital learning, and digital tools have during the process. However, emerging research is showing that when applied correctly, digital tools, particularly digital media, can have a positive influence on learning (Choudhury & McKinnery, 2013). It appears that neuroscientific fears are coming out of conflicting research findings and long-held beliefs. Therefore, an approach called "extended-mind" proposes that "external' props or devices are in fact extensions of the mind insofar as they extend its functions and activities" (Choudhury & McKinnery, 2013, p. 208). What this essentially demonstrates is that digital tools are just that: tools. When students are engaged in using technology as part of the learning process, ideally to enhance or deepen learning, the tools being used become an extension of their brain. The cell phone, iPad, etc. becomes like any other text or tool in that it extends the learning process (Choudhury & McKinnery, 2013). While this is an emerging theory where more

investigation needs to be developed, research linking digital tools and learning will be explored in the section below.

Section Summary: Neuroscience implications for educators. What has been known for many, many years is that brains are malleable or function in what is known as plasticity. Essentially, brains are constantly changing, and when stimulated are capable of learning and growing for a person's entire life. (Goswami, 2004; Sylwester, 1995; Worden, Hinton & Fischer, 2011). What has not always been known is how exactly the brain learns. The effects of boredom, technology, and cultural beliefs are all newer areas of research in the field of neuroscience (Choudhury & McKinnery, 2013; Ginsberg, 2014; Kitayama & Uskul, 2011; Willis, 2014).

When educators take neuroscience into account, they can organize a curriculum around real experiences and integrated, "whole" ideas which are where students are made aware of learning concepts and outcomes. Additionally, instructors focus on instruction that promotes complex thinking and the "growth" of the brain, essentially encouraging life-long learning. Neuroscience proponents advocate continued learning and intellectual development throughout adulthood (Goswami, 2004; Sylwester, 1995; Willis, 2008; Worden, Hinton & Fischer, 2011).

Digital Tools in the Classroom

The idea of using YouTube and other interactive digital media, such as Ted Talks or Kahoot!, as a pedagogical tool is an evolving one. While more and more teachers now embrace its usage to engage learners, many are not aware of the effect it has to enhance learning. In particular, research regarding the use of clips as instructional tools is limited. Information on how professors and alternative schools are using various digital and

multimedia tools in online classrooms seems to be where much of the work has been done thus far.

Videos as digital tools. However, a few isolated qualitative research studies highlight the usefulness of multimedia such as YouTube in the classroom. The findings show that technology has many uses and potentials in the classroom, all of which “...can create an engaging classroom in which students readily see relevance and practical use in what they are asked to do” (Wynn, 2011, p.42). Oftentimes students do not see the relevance of a class, and therefore become disengaged. As brain research indicates, when there is a repeated disconnect between classroom content and real-life, boredom occurs and the brain begins to tune out or shut down. When multimedia, defined by Meryem Yilam-Soylu (2009) as ““material in more than one form,”” is introduced into the classroom, meaningful learning can take place (as cited in Wynn, 2011, p.42). Using video, in particular, connects to various learning styles “by combining materials in interesting, engaging ways that marry well with the key concepts” (Wynn, 2011, p. 42).

Additionally, research on digital learning, particularly the use of video in instruction, allows for scaffolding to take place, thus laying the foundation for deeper understanding. “Instructors can use this familiarity to lessen the gap between the technology-savvy skills students possess and the traditional work in a...class” (Wynn, 2011, p.42) Bridging this gap gives educators the ability to build from students’ bank of knowledge and experience, while also improving students’ attitudes about the class and content.

Collectively, these studies found that multimedia and digital learning tools, particularly video and online resources, allow for what Trier (2007) deems “space

shifting” (p. 411). This concept refers to students’ being able to access materials from a variety of physical settings, not just in the classroom. In other words, wherever the Internet can be accessed, students can connect and therefore extend the classroom setting. Going online to view or search or comment on videos and other digital content is familiar to them, and so engagement is immediate (Gurung, 2015; Trier, 2007; Wynn, 2011; Younger, Duncan & Hart, 2013). Extending learning beyond the classroom, supported by neuroscience and pedagogical assertions, allows students to apply the material to their own lives, while also encouraging them to be an active part of their learning.

YouTube to connect concepts: A college case study. In an article entitled “‘Cool Engagements’ with YouTube: Part 1,” Professor James Trier (2007) explores the usefulness of YouTube in a college class where students are asked to bring in “texts” (CD, DVD, videos, photograph, print) that related to concepts from a larger text. First, the instructor models with an advertisement and then a short clip of the ad itself, which spawns discussion on advertising (what the content of the class centered around). The modeling demonstrates to students “...the powerful pedagogical potential of YouTube, particularly the ease with which it enables users to access videos relevant to their interests” (Trier, 2007, p. 410). The students, in turn, enthusiastically begin bringing in their own (mostly digital) materials; independent of the instructor directing, students start to collaborate with one another and to share their video and photograph links with the class on the class webpage.

This study demonstrates the power of YouTube and digital media as a learning tool. First, students become engaged and enthusiastic seeing real-world connections to their everyday lives or interests as Trier (2007) stated above. Moreover, the searching of

the videos--which can be done in any physical space, not just the classroom--becomes a discovery learning experience rather than a passive learning experience. Therefore, students are more engaged and motivated to find the material to bring in. Second, because they are asked to bring in materials that relate to them and then share those with the class, their knowledge and experiences are immediately validated. Greater classroom cohesion and collaboration result, leading to more meaningful seminar discussions. Additionally, the use of YouTube challenges students, while simultaneously allowing them to be autonomous and collaborative. Due to heightened engagement and real-life application, students make connections to larger concepts and the more difficult, anchor text without complaint (Trier, 2007)

YouTube in the ELA classroom: A case study. Another professor, Sarah Wynn (2011), found that using YouTube to teach rhetorical analysis not only increased students' understanding of the concepts but also created a "willingness to learn and to process the information" (p. 43). When students were allowed to pick out and share videos they collected on their own, they were eager to analyze these videos themselves without being pushed by the instructor. What Wynn found was that YouTube was the link to the outside world that immediately engaged students. Here, she was still able to teach the concepts required and to connect the YouTube videos with other course-specific material, showing the transfer of knowledge taking place. Furthermore, Wynn discovered that students' bringing in of texts creates a collective and cooperative learning environment where students were readily interacting and engaging in the learning process with one another. Reluctant writers and discussions were willing to try because they saw

YouTube as a format separate from their previous negative experiences in a composition class (Wynn, 2011).

Constructivism in multimedia learning: A case study. One study conducted with college students in Malaysia found that applying a Constructivist lens to students working in groups on a multimedia project yielded increased student engagement and led to deepened learning. Students reported feeling that they had an enhanced and meaningful learning experience working in groups, relying on the teacher merely as the facilitator (Neo & Neo, 2010). Not only does this study support the use of interactive classroom experiences, which Constructivist theory would applaud it also illustrates students' perception of the learning process. Students' felt empowered because they were engaged and active in their own learning processes. Compounding this is the fact that this study asked students to use and create multimedia projects. Again, when students are using digital tools from a carefully constructed perspective, learning can be enhanced and heightened, and engagement runs high (Neo & Neo, 2010). This study demonstrates the importance of incorporating student-driven, relevant texts and its connection to digital tools.

Students are digital natives, teachers must adapt. Because students today are digital natives, teachers must embrace the new forms of media and use it to support students and help them make connections from their personal lives to concepts in the classroom (Tyler, 2011, p. 177-178). Though this generation of students-and much more to come- are plugged into technology they profess that they lack the innate ability to proficiently work in a digital environment (Reilly, 2011, p.193). This process means that while students are comfortable and familiar with technology, they do not necessarily

understand all of its nuances, or how to utilize these to their advantage. Media literacy and 21st-century technology skills are a must, as stated by national standards and future employers, in the ever-changing digital world. Therefore, implementing digital tools and teaching students the various ways to use them is crucial for educators (Reilly, 2011).

Incorporating technology also establishes rigor as students are challenging themselves to find and analyze texts, and also assisting one another in the process as well. The various forms of watching and posting on YouTube permitting the instructor to assess students in a variety of ways. It also allows students to self-assess and peer edit (Wynn, 2011, p. 48-50).

Section summary. These studies provided evidence that through the use of digital tools, student engagement and validation is heightened; concepts and outcomes of the class were better understood, more meaningful discussions take place; and students make real-world connections between the texts and classroom content (Gurung, 2015; Younger, Duncan & Hart, 2013; Trier, 2007; Wynn, 2011).

Digital tools can and should be used to enhance the classroom. Not only do they promote student engagement through their connection to real-life situations and familiar interests, but they also allow students to see themselves represented in the classroom, encouraging them to become active participants in learning. Additionally, teachers are encouraged to take on a facilitator role, implementing student-centered practices and inquiry-based practices, and collaboration with peers (Algozzine, O'Shea & Obiakor, 2009, p. 137). In this way, teachers become learners and experimenters as well (Auman, 2011; Trier, 2007; Wynn, 2011).

The use of technology-enriched instruction allows students to see the applicability of concepts outside the classroom and into everyday situations, thus increasing meaningfulness, engagement, and critical thinking skills. Classrooms that use technology are shifting from teacher-focused to a “student-focused, active learning environment” (Auman, 2011, p. 154; Reilly, 2011; Trier, 2007; Tyler, 2011; Wynn, 2011). This student-focused and active classroom, in turn, adopts an engaged pedagogical model where students and instructors are active and engaged participants in the learning process. Again, these findings on digital tools in classroom support a Constructivist approach to learning.

Research Summary

What the ME, Constructivist, and CRP educational theories call for are student-centered classrooms that treat students as knowledgeable, capable beings who need and crave rigor and challenge. When teachers are willing to examine their own belief systems, making efforts to understand where students’ individual and home culture belief systems, then a pedagogical shift in equity can occur that will empower learners (Gay, 1995; Irving, 1990; Ladson-Billings, 1996/1999). In this way, curriculum and instruction are chosen that are reflective and relevant to students. Though, Scuibba (2011) cautions that relevant texts must be both as relatable to their own lives, as well as to help them relate to others.

Pedagogical theories advocate for collaboration and cooperation, along with student-centered classrooms where students are empowered, as key to meaningful learning. With these essential components in place, engagement will naturally take place. In fact, engagement through collaboration, cooperation, and empowerment are further

supported by research in neuroscience in combination with implementing digital texts (Trier, 2007; Willis, 2014; Wynn, 2011).

How the brain specifically learns is being revealed through brain research every day. Most important to this study are the new findings that boredom quite literally harms the brain and learning (Willis, 2013). When students are not engaged and involved in their own learning process, positive connections and associations are cut off, and instead, negative ones take their place. After long-term exposure to lack of stimulus, these students' brains go into fight or flight mode which can provoke acting out, tuning out, and ultimately a disconnect to school (Willis, 2013).

Gaps in Research, Connections & Implications for this Study. The question this particular project seeks to study is: *How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th-grade English classroom?* While much research has been gathered to support increased student engagement, there are still gaps in the research which this study will seek to begin to remedy.

To begin with, CPR has not necessarily been directly connected to digital texts and using multimedia learning. All texts for this study will meet both these criteria: they must be culturally relevant to the heterogeneous student population of my 11th-grade classroom, and they must also be available digitally. YouTube, UpWorthy, DiscoveryEd, TedTalks, and BuzzFeed could be the likely sources for these texts, through technology, and social media, in particular, is a fast-paced, ever-changing forum, and thus must be consulted and regularly updated in order to stay relevant.

Secondly, many CRP experts define culturally relevant texts as those which are reflective of students, also called mirror texts. However, Scuibba (2011) argues that culturally relevant texts can and must be both mirror texts and window texts, those which open up to experiences and people outside a student's world. This study is only one that has truly examined this concept in literacy. My incorporation of digital texts will further test the mirror-window continuum theory in expanding the definition of culturally relevant texts.

Next, neuroscience is continuously making new claims and discoveries on how the brain learns. The implications of boredom's harmful effects on the brain are enormous in that it is crucial for educators to engage students to ensure brain health. Ways to do this include finding relevant examples and texts so that students can make meaningful connections, which is further supported by Constructivism and CRP approaches. Having interactive activities and using a student-centered, student-driven classroom guarantees students' brains will be stimulated and challenged, resulting in engagement and learning.

The gaps here are how digital texts can be used in positive ways to enhance learning; for example, if the brain sees cell phones and other technologies as extensions of itself, then learning can be deepened with these tools. If students can make connections with digital texts--which they are already predisposed to be stimulated by and interested in,--then it follows that their connections to deeper learning concepts will follow. Most importantly, engagement levels overall should increase and transfer over from the digital texts to the other classroom texts.

Additionally, the very new cross-discipline studies of transcultural psychology and neuroscience are finding that cultural values are actually learned through both behavior and cognitive reinforcement, is an intriguing one full of implications for the classroom. This very new research is suggesting that cultural values become learned through the networking of neurons, and therefore become an ingrained part of brain functioning and learning. From this point of view, choosing culturally relevant texts--both mirrors and windows-- and practices in the classroom becomes even more important to ensure engagement and learning. This research will help me in choosing a variety of texts that will best suit and appeal to the students' needs, as well as to help guide students in making their own choices of texts to share with the class.

Lastly, most of the research found on digital learning seems to examine either teacher's usage of YouTube for online classes or digital learning's effect on the brain. The curriculum I have created for this project seeks to tie digital texts such as YouTube videos, *directly* to classroom usage for engagement, relevancy, and CRP purposes. In particular, the project applies the theory that culturally relevant texts in digital form can increase student engagement overall in the classroom, which in turn will deepen students' understanding of learning concepts. While the research on engagement and digital texts are promising, it does not directly incorporate cultural relevance. I am seeking to make this connection.

The culturally relevant texts used in this project will be reflective of the cultural, economic, and gender diversity of the students in the high school. The texts will also address multiple learning styles and seek to optimize engagement levels. Teaching and learning theories such as ME Constructivism, and CRP provided the framework for text

choices made in the curriculum outlined in the next chapter; additionally, UbD elements provide the base for the curriculum planning and instruction.

Also, an investigation into the existing research on how the brain learns, the implications that has on teaching practices, and its connection to engagement was also undertaken in this section. Comparing studies conducted by teachers using digital tools in the classroom concluded this chapter's work. Once again, these principles were used to justify the decisions made when creating the curricular framework and text choices to explore how student engagement and understanding can be increased through the use of culturally-relevant digital texts.

CHAPTER THREE

Project Design

Introduction

When exploring the question: *How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th grade English classroom*, the project design and methods will be detailed. Additionally, the classroom and school demographics will be laid out to justify better the reasoning behind the digitally-focused and culturally relevant units that offer a window-mirror text continuum to a highly diverse school population. Lastly, a variety of relevant education theories were used to design the project around to ensure deep learning and engagement in an 11th-grade classroom where mid-level learners have often tuned out; these theories will be further described below.

Using the theories specified in chapters 1 and then researched in Chapter Two, particularly those from Culturally Relevant Pedagogy, Social Justice Education, Constructivism, and neuroscience around learning were influential in designing a curriculum which relies heavily on digital texts. Engaging, relevant texts and activities begin and are peppered through each unit, allowing for student buy-in as concepts and skills become increasingly more difficult. Thus, a progression in learning should be obvious through scaffolded activities.

Project Description and Methodology

Project Overview. In the project, curriculum maps are styled after Wiggins and McTighe's (2005) Understanding by Design (UbD) framework and templates. This

curriculum was designed for two trimesters, and could certainly be adapted for use in a year-long English course. The three units were backwards designed with learning outcomes and assessments planned first, which can be evidenced by the first pages of each unit map. Conceptual understandings and essential questions drive inquiry-learning for each unit, inviting students to be engaged in their learning process and to extend their learning beyond the English classroom.

In addition, detailed learning plans and unit materials are provided for two units to give a more in-depth snapshot. An overview sheet, which briefly outlined learning outcomes, essential questions, skills, and possible texts, has been provided as a map of the course, making it ready to implement.

Timeline. Three units have been mapped out for a block period, one trimester, and for a one-and-a-half trimester of an 11th grade English course beginning in the Fall or Winter. The Language and Identity unit would essentially be the first unit of this class, which would begin after the first week of community building and procedural set-ups that usually take place at that time. The length of units could certainly be varied so that this course could take an entire year (two trimesters at my school) if an instructor were to include longer works of literature. For example, *The Great Gatsby* or *A Raisin in the Sun* could be incorporated as an anchor text in the last unit to connect and demonstrate students' previously scaffolded learning of close reading strategies, analysis, and lens application. Other time considerations could be made based on student engagement, re-teaching, and need for in-class summative assessment preparation.

Project Layout. In the project portion, three curriculum units have been designed for an 11th grade English classroom. The curriculum is centered around dynamic and

engaging teaching practices and instruction. These units would start in the Fall of Junior year and run through the half to a full year. Each unit is focused around language-- the way we as an audience interpret this, the way an author uses structural and stylistic choices, and the way societies and contexts play a role in our understanding and creating language. The three units: Identity, Gender, and Race & Class are outlined using the three stages of UbD, including essential questions, driving concepts and understandings, as well as skills, focus on a variety of assessments, and detailed learning plans.

Elements of research from chapter outlining how to engage students in this digital era can be seen in the detailed learning plans as well as in the list of possible texts that is provided as an additional document. Digital texts that provide a mirror or window for students have been purposely peppered throughout each unit. These texts are sometimes used as “hooks” into a unit or concept; sometimes they are used as a scaffolding technique; and sometimes they serve as an anchor text itself--asking students to study and dive into the digital platform as a text-type.

Assessments. UbD, Constructivism, and CRP all advocate for assessment that is relevant, authentic, and performance-based when appropriate.

Summative Assessments. When looking at summative assessments that have been chosen, one should see that each unit is building off the last, challenging students a little more each time. The three units will culminate with a performance-based project in which students pretend to be linguistic anthropologists preparing a presentation for an anthropology conference. Students are to choose a language element—from any of the units studied—that they would like to study further and then teach their classmates. Since this process is something actual social scientists do, it is also authentic. Additionally, as

juniors in high school, they are also preparing for post-secondary options and this type and level of rigorous and engaging assessment will help prepare them for college assessments. Not only will it engage and challenge students, but it will also allow for authentic demonstration of knowledge, understanding, and transference by requiring students to go through all stages of Bloom's Taxonomy. Lastly, a performance project like this one allows for differentiation. No two presentations need be exactly alike, though a structure and rubric will be provided. Thus, instructors can easily work with students to accommodate their individual needs.

Because this summative assessment appeared at the end of the Language and Race/Class unit, each summative in the units prior should build to this skill set. For example, the summative in the first unit on Language and Identity will be a Socratic Seminar, which has both a pre-writing and speaking component. More than most teens, students in this course generally feel comfortable with public speaking. This format asks them to demonstrate class work on close reading strategies and analysis while allowing them to perform confidently. Then the next unit will take this written analysis format in the form of an exam with excerpts, along with a project/performance assessment in the form of an argumentative letter. Again, these various ways of demonstrating knowledge should build confidence in students for the final performance project, while also allowing for student choice and challenge.

Formative assessments. It will take on a variety of formats as well, with the goal being that every day an instructor will perform a check in with students, be it through a discussion, exit ticket, marked text, individual sharing, written work, or quiz. Small group activities and discussions, student share-outs and gallery walks will be important

parts of formative assessments as they not only build toward the larger summative assessments but allow both teacher and student to determine what is being understood and what needs to be retaught on a regular basis.

Unit outline chart of outcomes and texts. A list of essential questions for each unit followed by a chart of possible texts organized by digital, print, or hook will be found after the curriculum maps. The list of skills and possible materials needed for each of these units follows these lists. Again, the reasoning behind providing the essential questions and list of texts that could be used in the unit is to assist in immediate implementation of the unit. Often time when teachers are planning units, they find a focus or concept they like, but then spend hours trying to find the materials and sources necessary to teach it. By providing both the outcomes of this unit, the way to engage students from the get-go, and to provide a variety of categorized varying texts, any educator looking at these curriculum documents would be assured challenging, engaging, high-quality curriculum that is ready to go.

Text requirements and definitions. The text selection requirements are 1) that they are interactive digital texts; 2) that they must be culturally-relevant--offering a window or mirror perspective--to students (defined further below); and 3) they must connect to learning outcomes and larger anchor texts of our course. Therefore, texts will be chosen by both myself and students, allowing students to feel validated and empowered them. For example, in the heat of protests against police brutality and corruption towards people of color, we may choose clips of news reports to watch as we study the effect language and static image have on our beliefs. Relevancy will not only hook students but also offers a real-life element that further meets the requirements of

culturally-relevant pedagogy in that students are seen as knowledgeable participants and held to high academic standards. A list of possible texts has been included in the project section.

Definition of culturally-relevant texts. Culturally-relevant texts will be defined by the standards of culturally-relevant pedagogy model. Dr. Gloria Ladson-Billings (1995) explains that there is a need for “humanizing pedagogy that respects and uses the reality, history, and perspectives of students as an integral part of educational practices” (p 160). It is also a pedagogy of “opposition,” meant to collectively and individually empower students (p. 160). Thus, the culturally relevant texts chosen for my classroom will be based on this framework. Furthermore, the pedagogy is made up of three components: “(a) Students must experience academic success; (b) students must develop and/or maintain cultural competence; and (c) students must develop a critical consciousness through which they challenge the status quo of the current social order” (Ladson-Billings, 1995, p. 160). The digital texts I choose as culturally relevant will adhere to these criteria. The essentialness of culturally relevant pedagogy will be detailed further on in this chapter and others to come.

Definition of “text” as a digital tool. As educators and researchers, Trier (2007) and Wynn (2011) found when they introduced and used digital texts in the classroom, “texts” can be defined as any tool used to enhance learning. In this way, a text’s relevancy and relatability extend beyond the classroom, so that students begin to see a text beyond the traditional format and rather into anything that can be studied and analyzed. Furthermore, neuroscientists Choudhury & McKinnery (2013) discovered, in

their research on the brain and electronics, that technology can become an extension of the brain, and therefore can become an essential and helpful tool in the classroom.

Research Project Theories

Tenets of Culturally Relevant Pedagogy (CRP), particularly its three primary foundational beliefs, along with theorist Gloria Ladson-Billings' (1995) definition of culturally relevant texts, have been used to create the framework of the methodology chosen. Constructivist learning theory also plays a role in validating study choices. The definition of culturally relevant digital texts is mostly constructed upon the concept of texts connecting to students in a mirror-window continuum, as well as from digital learning research practices.

CRP components applied to the framework. In the beginning, Gloria Ladson-Billings (1995) criteria of CRP was used as the philosophical framework for choosing texts and driving pedagogical decisions. The three essential criteria that makeup CRP: “(a) Students must experience academic success; (b) students must develop and/or maintain cultural competence; and (c) students must develop a critical consciousness through which they challenge the status quo of the current social order” (Ladson-Billings, 1995, p. 160). From this framework then, texts used in the classroom must also fulfill these requirements. It is from this perspective that digital texts will be chosen (Gay, 1996; Ladson-Billings, 2001).

Mirror-window continuum principles. Scieurba's (2014/15) examination of the necessity for texts to serve as both windows and mirrors for reader engagement was applied to texts chosen. The mirror-window concept refers to the idea that a text serves as either a mirror of a student's life and experiences or as a window into the life and

experiences of another. While CRP generally takes a predominantly mirror approach to choosing texts, meaning students must see themselves in the text to feel validated and engaged, Sciarba (2014/15) advocates for a more balanced approach which must also include window texts. Texts that fit on the mirror-window continuum can better meet all learners' needs, as some students connect more with texts that are reflective, while some connect more with texts that are eye-openers. Both are needed, however, to ensure a well-rounded literacy and learning experience; both are necessary to engage learners. Therefore, this concept was applied to the texts chosen for this study in that they will fit on the mirror-window continuum.

Constructivist theory and digital learning application. Constructivist theory developed by educational theorist Jean Piaget was also consulted when defining engagement and types of learning approaches, such as the need for engagement through novelty and scaffolded learning (Brooks & Brooks, 1999; Gould, 2005). First of all, the concept of novelty, or “newness” factor has been applied to text selections in a variety of ways. Supported by research on how the brain learns and avoids boredom, beginning a course or unit with a digital text automatically engages students (Harrison, Tufts, Strayer, 1974; Trier, 2007; Willis, 2014; Wynn, 2011). Something new and interactive such as a YouTube video or a spoken-word poem being performed adds newness to the class and keeps their brains engaged.

I was able to select culturally-relevant texts, mediums, and concepts that will be somewhat familiar to students, moving towards less familiar texts, mediums, and concepts. The texts themselves serve as a scaffolding tool for anchor texts and learning outcomes as they will always relate more directly to students' lives, leading them to

newer or more difficult learning concepts. This approach is advocated for by both constructivists and CRP proponents to engage students and to ensure meaningful and rigorous learning occurs.

Understanding by Design as curriculum map. The framework, or maps, in which the curriculum was presented were a blend of Wiggins and McTighe's (2005) Understanding by Design (UbD) and the International Baccalaureate program that our school participated. I respected both of these programs as a challenging, yet engaging framework that can be used with all students who are preparing for post-secondary options. These unit planners were chosen by the district, based on UbD principles and so I am using this format so that more teachers and families in my district will be able to access something that is already familiar to them.

While UbD often calls for performance-based assessment, the units designed in this curriculum rely mostly on college and career-ready, authentic assessments. Some units have a larger project-based task, and some include more traditional approaches that equally demand critical thinking and application from students. The rationale behind this is two-fold: Junior year is a critical year in cognitive development and preparation for college. Summative assessments were designed with that in mind: students must start to practice and prepare for the kind of high-level assessment that will face in the post-secondary world.

Setting and Participants

The study will take place in a large suburban high school in Minnesota, which is one of five high schools in one of the largest school districts in the state. This particular high school draws students from four surrounding communities that are first, second,

third ring suburbs, as well as a community transitioning from farming into more of a bedroom community. The student population in October of the 2017-2018 school year totaled 2,696. Of this, 58 percent percent of students identify as white, 19 percent identify as black (“not of Hispanic origin”), 6 percent identify as Hispanic/Latino, Asian/Pacific Islander make up 14 percent, 1 percent identify as American Indian/Alaskan Native, and 3 percent as two or more races. Almost 34 percent of the entire student population participates in the free-and-reduced lunch program, indicating their families fell beneath the poverty line (Minnesota Department of Education, 2017).

Classroom breakdown and demographics. The classroom this particular study was conducted in an 11th-grade English class. The classroom size consists of roughly 36 students ranging in age from 16 to 17-years-old. This particular course is the mid-level 11th-grade course, focusing mostly on American literature.

As stated above, the class in which this study took place is made up of approximately 36 11th-graders, making allowances for transitioning students. Of these, about 50 percent identify as white, 50 percent as students of color or “more than one race” (Minnesota Department of Education, 2017). The gender makeup is 70 percent is male, 30 percent being female. Due to privacy laws, free-and-reduced numbers are only available for the entire class, and cannot be broken down into particular racial or ethnic groups.

Breakdown of communities served by the high school. As mentioned above, the communities from which this high school draws are heterogeneous. One of the suburbs is becoming a “flight” community for people seeking to leave a particularly impoverished and higher crime-ridden part of the metro area. Many of the families

leaving the city and moving into this first-ring suburb are people of color, particularly Black American and African immigrants.

This change, in turn, is causing shifting demographics at the nearby second-ring suburb, which currently is one of the most racially diverse suburbs in the metro area. Fifty percent of residents identify as white, and 50 percent is made up of people of color, including a large Southeast Asian population, African immigrants from both West and East Africa, Black Americans, and a few eastern European immigrants, predominantly from Russia. Latino immigrants and Latino-Americans make up a very small percentage of both these suburban communities' population. The populations in these two first and second-ring suburbs (respectively) are made up of a mix of lower to middle-class families (United States Census Bureau, 2017).

The third-ring suburb that also feeds into the high school is predominantly white and mostly middle-class to upper-middle class socioeconomically. However, with shifting demographics, families of color are slowly moving in here as well. Lastly, the more rural community that also feeds into the school is mostly made up of white families from a variety of socioeconomic backgrounds. This community has traditionally been a farming or homestead one but is in the process of shifting as more land is being developed for houses and commercial use (United States Census Bureau, 2017).

Given this wide array of racial, ethnic, and socioeconomic representation in the classroom, it becomes even more imperative to use the mirror-window continuum when selecting culturally relevant, interactive texts. Students must study texts that not only look like them but also like others so that the idea of literature as teaching compassion can truly be embraced.

Summary

This chapter has explained the reasoning behind the project:

- the fact that these 11th grade English students *need* to be engaged in deepening understanding, which is where digital texts of varying lengths can better grab and keep their attention;
- these same students in an economically, racially, ethnically and linguistically diverse classroom must also have culturally relevant texts to further engage in the mirror/window continuum that is so crucial to deepened literacy and learning.

In this suburb classroom, students are used to disengaging, to not being challenged authentically, and too often not seeing themselves reflected in the texts regardless of their background. By designing the curriculum in this way, I have attempted to answer the question: *How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th grade English classroom?*

Building curriculum using backwards design, which incorporates constructivist approaches and authentic and varied assessments, allows students to engage deeply in the learning process. It also has allowed me, the instructor, to assess their learning in a variety of ways. The implications of this unit—what went well, what changes I would make, who I might share this unit with—are areas that will be explored in Chapter Four where conclusions will be discussed.

In this section, the framework from which the project was based, as well as the project layout were explored and explained. The main components of the theories on which the curriculum is based on CRP, constructivism, mirror-window continuum, and Understanding by Design (UbD) has also been delineated.

The project document has been laid out to contain unit overviews of an 11th grade mid-level English course over most of the two-trimester period. The key components, driving questions and understandings have been provided, as well as a list of possible texts, assessments, and criteria, and then moving into detailed learning plans. A focus on curriculum that is engaging, relevant, and peppered with digitally interactive texts should be apparent throughout.

In the next chapter, a reflection on the curriculum work, including its potential application for the future, as well as its successes and limitations will be presented.

CHAPTER FOUR

Conclusions

Introduction

How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th-grade English classroom? This question is what motivated the research and creation of a curriculum project that uses a myriad of digital and print texts to engage students in critically examining the world around them deeply.

Teaching in a suburban 11th-grade English classroom where my students became more tuned *out* of class work, and more tuned *in* to digital platforms concerned me and I wanted to figure out how to embrace this shift, to use technology as a tool and platform. Furthermore, teaching in a racially, ethnically, and socioeconomically diverse classroom, I realized the opportunity in front of me to teach from a social justice approach. Not only did I wish to select digital texts that were engaging, but I also desired to choose ones that would reflect my classroom, particularly those students for whose stories were sorely underrepresented in traditional English curriculums.

Desiring this outcome led me on a road of research around how the brain learns in general, particularly around stimuli and boredom; examining how brains interact with digital tools, as well as how education was presently using digital tools and texts was also consulted. In all of these areas, I found that digital tools can greatly help deepen students' understanding, as the brain will react to this as new stimuli and may even be able to see a digital tool as an extension of the brain. However, much of the use of digital tools and texts in education seems to be around engagement, though in a haphazard way and often

does not see the deep value in using devices and texts to deepen learning and help students make connections with transferrable concepts. More of the outcomes of neuroscience research and its implications follow in this chapter.

Further research into pedagogical theories such as Culturally Relevant Pedagogy, Constructivism, and a window-mirror text continuum, allowed me to more closely examine the need for teachers to create curriculum that both reflects our students' world and invites them to see multiple perspectives. In doing this, not only will students engage more readily, but they can also then learn to take ownership of their learning, and eventually become agents for social change. The application to the capstone project and subsequent implications of these realizations also can be found in this chapter.

Some of my future recommendations for policy changes and how effectively sharing my discoveries with fellow educators is also highlighted throughout the writings below.

Applications and Implications of the Literature Review

Window-Mirror text continuum as a metaphor. Through the essential research featured in chapter 2 which focused on Culturally Relevant Pedagogy, the neuroscience of learning and engagement, as well as digital literacy tools effectiveness, I built a curriculum centered around culturally relevant, digital texts. This research also opened my eyes to literacy work being done around the window-mirror continuum (Sciurba, 2014/15) which stated that students need to encounter texts that are both a window into their own lives *and* a mirror into that of others. Like most English teachers, I am well-versed in all kinds of lenses and text selection processes, but applying a window-mirror frame became a simple, metaphorical approach that was easy to apply.

The window-mirror metaphor perfectly harmonizes with Culturally Relevant Pedagogy (CRP), in fact it takes it one step further, as it asks students to not only to see themselves in works, but to also establish compassion, which is so large a part of the reason I chose to become an English teacher—the ever-ideal belief in the capacity of literature and discussion to change lives, to instill empathy, to arm students with agency to create positive change in the world. In my diverse classroom, I needed to be able to have my students of color and socio-economically marginalized students see and hear themselves in the work that so often does not mirror them or their worlds. However, I equally needed to provide a window into other worlds for my white and more affluent students who so often *only* see or hear themselves in textbooks and on television. In the increasingly openly xenophobic world, my students and I live in, teaching empathy and compassion through window texts seems the best practice of social justice, proven ways to dismantle fear and hatred. Thus, following this continuum allowed for *all* students to deepen engagement and access understanding from multiple points.

Future implications for the window-mirror continuum. Stumbling upon this research has altered my text selection process, allowing me more options and opportunities to change my text selection process due to a more broad definition. It is my hope that sharing this metaphor with other educators could do the same for them. Many of us were trained on Reader-Response and Text-to-Self critical lenses, which have mostly advocated for mirror texts. These are limited and not wide enough for this study which has sought for a more inclusive approach to texts. Adding window texts, and everything in between those two dichotomies allows for better, more relevant text selections.

Implications for digital texts used in the classroom. Like the window-mirror continuum, defining digital texts as reliable texts, allows a teacher's world to be opened up to possibilities. Where schools are increasingly facing budget cuts so that ordering the latest novel or updating textbooks is out of the question, treating digital texts as a reliable tool, has lasting implications. Teachers would be able to infuse the curriculum with up-to-date and new-and-emerging texts, or feature experts from a field—via TedTalks, Discovery Ed, Skype, and other digital platforms—at no cost. Due to relevancy, student engagement will increase in the classroom with the addition of digital texts.

The brain and digital tools. Research around how the brain learns, how it interacts with digital platforms was fascinating as well. I had hunches, but actually diving down into the nitty-gritty of the neuroscience was a gift that not only informed the creation of this project but continues to permeate my every day teaching practices. For example, research has found that digital technology tools can be read as an extension of the brain (Choudhury & McKinnery, 2013). In other words, emerging studies have found that when students are given a chance to use a smart device or laptop as a device in learning, their brains actually see it as a part of the learning, rather than as a separate entity.

Implications of digital tools as a part of the brain. The implications of this work on education are tremendous. In schools that are becoming more and more reliant on digital tools such as Kahoot! to online forums to flipped classrooms, this research could justify those decisions, even encourage more use of these tools. When properly applied, one-to-ones (where each student has their own electronic device) can be extremely helpful in deepening the learning process, according to this research, which could

influence how schools spend technology funds. While educators have embraced many digital tools as a filler or a quick engagement activity, they are rarely valued for their educational potential. Digital tools and texts need to be viewed as resources that not only increase student engagement but that offer deep and lasting, conceptual learning to take place.

Policy implications for digital texts and tools. Due to emerging research, technology policies should be revisited at schools, including YouTube and Twitter bans, as well as use of personal electronics in the classroom. In my school, YouTube is blocked so that even staff members must sign in to override this. Personal electronic policies are left up to the individual instructor which often confuses students when moving from class to class, though autonomy as an instructor is often important. It seems that a case can be made to have a policy that will support educator's meaningful use of digital tools and texts in the classroom and that families and students should also be a part of making this decision. Therefore, I would advocate that at the very least teachers should have access to YouTube and Spotify and other digital tools that assist me in teaching students. These are just a few of the questions that the project's use of digital texts brings up and could be explored further.

Limitations for digital platforms and neuroscience. Emerging science around how digital tools can actually help learning is still fairly limited and ever-changing, it should continue to be explored. Additionally, the long-term effects of digital tools on the brain are still being uncovered, so it cannot be known if applying frequent use of digital texts could be harmful to students. Like cell phone use, this science is just too new to predict the long-term effects. However, it looks promising that *shared* digital experiences

that are connected to interactive strategies and scaffolded lessons have positive learning outcomes.

The effects of boredom on the brain. This research examined various kinds of boredom and how our brain adapts has also changed my practice as an educator. For instance, the research by Willis (2014) found that if a brain is constantly exposed to being idle or disengagement, it will adopt this as a learned behavior, which can lead to serious detriments in one's learning. Whereas it is also important for the brain to learn boredom, to be able just to sit. The repercussions of this research in today's classrooms where cell phone usage is often a fight are incredibly important. I have shared this research with my students and colleagues to advocate for no cell phones in my classroom. This project has also influenced my conversations with our staff as we revisit our school electronics usage policy. Beyond electronics, this research on how boredom can hurt students' brain, but also how the brain needs to practice "good" boredom is a constant in my mind when I am designing lessons. Questions like, *Will the use of a digital text help engage students so that we can have a meaningful discussion? Or Am I justified in doing a note-taking activity that might not be deemed as "fun" by the students?*, are at the forefront of my consciousness.

Implications of the neuroscience research and recommendations. Not only was this research considered when designing my project, but I firmly believe that educators must be given exposure (and time) to read up on the latest research. Just as doctors are required to read the most current research from the medical community, so it should be with teachers to explore the latest neuroscience research. The social psychologist Belinda Williams (1996) work centered around reframing deficit thinking around

disadvantaged children to be one of asset thinking argued that teachers are behavioral scientists. I whole-heartedly agree with this assertion and thus advocate for teachers to be given ample opportunities to study the latest neuroscience around learning. It should make a required part of Professional Development, perhaps even making it a licensure requirement at the state-level.

Pedagogical theories and their connection to digital texts. The theories of CRP and Constructivism were further extended through the digital text connection. Both of these theories look to engage students and have them connect to meaningful, conceptual learning, which digital texts and tools can absolutely do. CRP essential criteria is “(a) Students must experience academic success; (b) students must develop and maintain cultural competence; and (c) students must develop a critical consciousness through which they challenge the status quo of the current social order” (Ladson-Billings, 1995, p. 160). In researching this, I saw my opportunity to link digital texts and key components of CRP. Therefore, the text selection criteria for this project became a) that they are interactive, shorter digital texts minutes in length; b) that they must be culturally-relevant to students; and c) that they must connect to learning outcomes and larger anchor texts of our course.

Other application and limitations. I have continued to work from my text definition when teaching any class, and have begun to share my discovery with my collaborative team and other colleagues. It feels as if this definition and connection could be more widely shared with others in my profession to allow teachers further a way to engage students.

One limitation of the definition and selection of digital texts found in the project could be that they are all fairly small in length. While this was partially the intent since I wished to use the texts in the Constructivist approach of novelty (further supported by neuroscience research stimuli in the brain), some might find it limiting. Students would not be exposed to lengthier texts for the beginning of this course. Again, my motivation for this was two-fold: to engage mid-level students who have often been unengaged in English courses; and to scaffold reading and writing strategies so that when we would tackle a longer text such as a novel or play, they would feel undaunted—even eager—to take on any task.

Implications for Effective Teaching

The phrase “It takes a village to raise a child” comes to mind when I think about what it takes to be an effective educator, as it seems to apply to us as well. Completing this project has also reiterated the crucial components of effective teaching: it is about research and experience, about getting to really know the students one is serving, and then creating challenging, well-planned, engaging curriculum. In designing curriculum, it is not enough to simply put in texts that I enjoy; it is vital to choose texts that interest my current students. Often times this means varying texts quite frequently, so being flexible to students’ needs and interests becomes crucial. To do this, one must be able to formatively assess students in a variety of ways each day, to truly gauge learning and understanding. Additionally, if an educator is to be flexible with text selections, we must not only be familiar with many options and be open to seeking out other texts, but we must also pull from a plethora of instructional strategies. In this way, even if I have never

taught a particular text before, but it genuinely engages my students, I can at least rely on tried-and-true instructional practices that allow for authentic depth and dissection.

If educators are to become agents of change, then we must come to know our students, which means understanding social beliefs and systems of power and privilege. As discussed in Chapter 3, public schools are becoming more and more diverse while teachers are becoming less so. The children in our schools are also experiencing higher numbers of trauma, anxiety, food and home insecurity across the board. Thus, understanding and knowing who you teach—on both an individual and systemic level—is crucial if we are to reach students. If we are to be social justice workers in the most authentic sense, then we must plan curriculum that is engaging and empowering. Educators can only accomplish this process if they are given time and training to find relevant texts and to deeply think through teaching strategies and instruction. Following, they need additional time to plan scaffolding, design authentic, performance-based assessments, and ultimately plan backwards from where we want students to be at the end of the year.

To do this is no small feat. It takes time and training, expertise and experimentation. Educators must be willing to be innovators and risk-takers. Something I practice in my classroom and in my collaborative work with colleagues after completing the work of this project which re-iterated the necessity of these characteristics in an effective educational system.

Sharing my work with others. Arriving at these various understandings of the magnitude of what it takes to become an effective and innovative educator has taken me a long time in my career, and so it is my wish to share the work that led me here with

others in my field. Whether it be through building or district-led professional development, collaborative team time, instructional leadership roles, mentoring new teachers, perhaps even writing a chapter manuscript for publication, I will share the valuable research and realizations, so that we can build a stronger, more just educational experience for students.

Summary

The applications and implications of my project have been tremendous. Through researching effective pedagogy methods centering around social justice education, such as Culturally Relevant Pedagogy (CRP) and Constructivism, I was able to find grounding in what is required to engage my diverse student population while still ensuring meaningful learning. Furthermore, the criteria of CRP and current neuroscience on how the brain learns and interacts with stimuli was used to form the basis of my definition of texts as culturally relevant, digital texts that are often short. This definition is the one I continue to use in my teaching practice today, and one that I share with other practitioners.

Seeing the overlap in research of what it takes to be a truly effective teacher—one in which a student can interact in a variety of ways with relevant texts that fall on a window-mirror continuum, where teachers are flexible to students' interests and needs, where learning and skills are scaffolded so that less familiar or more challenging tasks can complete with confidence—in combination with digital tools and texts, has truly been transformative. It has helped me build an engaging, yet challenging high school English curriculum.

It has opened my eyes to seeing educators as innovators. Therefore, we must be flexible and open to change, to learning about the new research and trying out strategies and techniques that might be deemed as “crazy” in any other context. We must be the risk takers and lifelong learners and inquirers we ask our students to be. We must be icons of pop culture, or at least “hip with the times.” Being these allows us to engage in the learning process with our students fully; for all of us to be agents of social change. It allows for lasting change, for deep and authentic engagement. It opens not only our students but ourselves to the realm of possibility. It allows for individual needs.

Incorporating and building curriculum around digital, engaging texts allows for novelty and excitement. Turning the classroom into a living, changing, and flexible atmosphere rather than an outdated, stagnant one. Teacher and students then become adventurers.

Through exploring the question *How can I incorporate culturally-relevant, digital texts to increase student engagement and understanding in an 11th grade English classroom?* I discovered that curriculum—and the instructional practice that goes along with it—absolutely can and *must* be transformative for both teacher and student. As the famous educator bell hooks states (2003): “As teachers we believe that learning is possible, that nothing can keep an open mind from seeking after knowledge and finding a way to know.”

References

- Auman, C. (2011). Using simulation games to increase student and instructor engagement. *College Teaching*, 59(4), 154-161.
doi:10.1080/87567555.2011.602134
- Beach, R., Doering, A., & Brien, D. (2007). Infusing multimodal tools and digital literacies into an English education program. *English Education*, Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA177612693&v=2.1&u=hennepin&it=r&p=PROF&sw=w&asid=d189521ace8b982c31a92baa60e9a4c0>
- “bell hooks Urges ‘Radical Openness’ in Teaching, Learning (The Council Chronicle, Sept. 04, 2008).” *NCTE*. (n.d.). Retrieved from <http://www.ncte.org/magazine/archives/117638>
- Brooks, J.G., & Brooks, M.G. (1999). *In search of understanding: The case for constructivist classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Brown-Jeffy, S., & Cooper, J. E. (2011). Toward a conceptual framework of culturally relevant pedagogy: An overview of the conceptual and theoretical literature. *Teacher Education Quarterly*, 38(1), 65-84. Retrieved from [http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ914924&site=ehost-live;](http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ914924&site=ehost-live)
- Choudhury, S., & McKinney, K. A. (2013). Digital media, the developing brain and the interpretive plasticity of neuroplasticity. *Transcultural Psychiatry*, 50(2), 192-215. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2013-20184-002&site=ehost-live>

- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: SAGE Publications.
- Dover, A. (2013). Teaching for social justice: From conceptual frameworks to classroom practices. *Multicultural Perspectives*, 15(1), 3-11.
doi:10.1080/15210960.2013.754285.
- Devlin, T. J., Feldhaus, C. R., & Bentrem, K. M. (2013). The evolving classroom: A study of traditional and technology-based instruction in a STEM classroom. *Journal of Technology Education*, 25(1), 34-54. Retrieved from
<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1020183&site=ehost-live>
- Fosnot, C.T. & Perry, R.S. (2005). Constructivism: A psychological theory of learning. In Fosnot, C. T. (Ed.), *Constructivism: theory, perspectives, and practice* (pp. 8-38). New York: Teachers College Press.
- Gay, G. (2013). Cultural diversity and multicultural education. *Curriculum Inquiry*, 43(1), 48-70. Retrieved from
<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1009721&site=ehost-live>; <http://dx.doi.org/10.1111/curi.12002>
- Gebre, E., Saroyan, A., & Bracewell, R. (2014). Students' engagement in technology rich classrooms and its relationship to professors' conceptions of effective teaching. *British Journal of Educational Technology*, 45(1), 83-96. doi:10.1111/bjet.12001

- Ginsberg, M. B. (2014). MOTIVATION: The key to academic success in culturally diverse high schools. *Principal Leadership*, 15(4), 26-30. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eft&AN=99747275&site=ehost-live>
- Gould, J.S. (2005). A constructivist perspective on teaching and learning in the language arts. in Fosnot, C. T. (Ed.), *Constructivism: theory, perspectives, and practice*. New York: Teachers College Press.
- Gurung, B. (2015). *Digital engagement: Learning experiences of alternative high school students within a technology integrated triad model*. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2015-99010-095&site=ehost-live>
- Harrison, A. A., Tufts, J. W., & Strayer, J. B. (1974). Task difficulty and the reinforcement effects of high- and low-frequency stimuli. *Journal of Personality and Social Psychology*, 29(5), 628-636. doi:10.1037/h0036553
- Herman-Davis, B. (2011). *A student-centered classroom for struggling readers transforms a teacher's identity and pedagogy*. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED533420&site=ehost-live>; http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&res_dat=xri:pqdiss&rft_dat=xri:pqdiss:3468739
- Herrick, K., Fakhouri, T., Carlson, S., & Fulton, J. (2014, July 1). TV watching and computer use in U.S. youth aged 12–15, 2012. In NCHS Data Brief (No. 157),

Center for Disease Control from

<http://www.cdc.gov/nchs/data/databriefs/db157.pdf>

hooks, b (1999). *Talking back: Thinking Feminist, Thinking Black*. Boston: South End Press.

hooks, b. (2009) *Teaching critical thinking: Practical wisdom*. New York, NY: Routledge.

Ibrahim, M. (2012). Implications of designing instructional video using cognitive theory of multimedia learning. *Critical Questions in Education*, 3(2), 83-104. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eft&AN=90486720&site=ehost-live>

Irvine, J. J. (2009). Relevant: Beyond the basics. *Teaching Tolerance*, (36), 41-44. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ866734&site=ehost-live>; <http://www.tolerance.org/magazine/number-36-fall-2009/relevant-beyond-basics>

Irvine, J. J. (2010). Culturally relevant pedagogy. *Education Digest: Essential Readings Condensed for Quick Review*, 75(8), 57-61. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ880896&site=ehost-live>; <http://www.eddigest.com/sub.php?page=contents>

Ladson-Billings, G. (1995, 12). But that's just good teaching! The case for culturally relevant pedagogy. *Theory Into Practice*, 34(3), 159-165.

doi:10.1080/00405849509543675

- Ladson-Billings, G. (2009). *The dreamkeepers: successful teachers of African American children*. San Francisco, CA: Jossey-Bass Publishers.
- Landsman, J., & Lewis, C. W. (2006). *White Teachers/Diverse classrooms: A guide to building inclusive schools, promoting high expectations, and eliminating racism*. Stylus Publishing, LLC. Retrieved from <http://cee.che.ufl.edu/Journals/Summer%202010%20v44.3/Liberatore%20443.html>
- Liberatore, M. W. (2010). YouTube Fridays: Engaging the net generation in 5 minutes a week. *Chemical Engineering Education*, 44(3), 215-221. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ935042&site=ehost-live;>
- Lopez, A. E. (2011). Culturally relevant pedagogy and critical literacy in diverse English classrooms: A case study of a secondary English teacher's activism and agency. *English Teaching: Practice and Critique*, 10(4), 75-93. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ962607&site=ehost-live>
- Mayer, R. E., & Estrella, G. (2014). Benefits of emotional design in multimedia instruction. *Learning & Instruction*, 33, 12-18.
doi:10.1016/j.learninstruc.2014.02.004
- Mayer, R. E., Heiser, J., & Lonn, S. (2001). Cognitive constraints on multimedia learning: When presenting more material results in less understanding. *Journal of Educational Psychology*, 93(1), 187.
- Mills, G.E. (2007). *Action research: A guide for the teacher researcher*. Upper

Saddle River, NJ: Pearson Prentice Hall.

Minnesota Department of Education. (2014). Data Center. Retrieved

from <http://education.state.mn.us/mde/data/>

Mitchem, K., Koury, K., Fitzgerald, G., Hollingsead, C., Miller, K., Tsai, H., & Zha, S.

(2009). The effects of instructional implementation on learning with interactive multimedia case-based instruction. *Teacher Education and Special Education*,

32(4), 297-318. doi:10.1177/0888406409343520

Mullen, R., & Wedwick, L. (2008). Avoiding the digital abyss: Getting started in the

classroom with YouTube, digital stories, and blogs. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 82(2-), 66-69. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ816787&site=ehost-live;>

<http://heldref.metapress.com/openurl.asp?genre=article&id=doi:10.3200/TCHS.82.2.66-69>

Neo, M., & Neo, T. (2010). Students' perceptions in developing a multimedia project

within a constructivist learning environment: A Malaysian experience. *Turkish*

Online Journal of Educational Technology - TOJET, 9(1), 176-184. Retrieved

from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ875781&site=ehost-live>

Neo, M., Neo, T., & Xiao-Lian, G. (2007). A constructivist approach to learning an

interactive multimedia course: Malaysian students' perspectives. *Australasian*

Journal of Educational Technology, 23(4), 470-489. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ834066&site=e=ehost-live>; <http://www.ascilite.org.au/ajet/ajet23/neo.html>

Newsome, J.S. & Costanzo, J (Producers), & Newsome, J.S. (Director). 2011. *Miss Representation* [Documentary]. United States: Girls Club Entertainment.

Ng, H. Z., & Hussain, R. M. R. (2009). Empowering learners as the owners of feedback while YouTube-ing. *Interactive Technology and Smart Education*, 6(4), 274-285.

Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ868124&site=e=ehost-live>; <http://dx.doi.org/10.1108/17415650911009254>

Nieto, S. (2006). *Teaching as political work: Courageous and caring teachers*.

Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED497692&site=e=ehost-live>

Oran, G (2009, 12). "Culturally relevant pedagogy." *Culturally Relevant Pedagogy*.

Education.com.

Patterson, R. E.,III. (2012). The role of culturally relevant texts and comprehension strategy instruction in the literacy engagement of African American adolescent males (Ph.D.). Retrieved from

<http://search.proquest.com/docview/1223343323?accountid=28109>

Pletka, B. (2007). *Educating the net generation: How to engage students in the 21st century*. Santa Monica, CA, USA: Santa Monica Press.

Reilly, C. (2011). Taking risks and (re)defining expertise: Facilitation the move from consumption to production in the use of digital media. in Vavra, S., & Spencer,

S. L. (Eds), *Clash!: superheroic yet sensible strategies for teaching the new literacies despite the status quo*. Charlotte, NC: Information Age Pub.

Roodt, S., & Peier, D. (2013). Using youtube© in the classroom for the net generation of students. *Issues in Informing Science & Information Technology*, 10, 473-488.

Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=91510548&site=e=ehost-live>

Saurabh, S., & Sairam, A. S. (2013). Professors - the new YouTube stars: Education through web 2.0 and social network. *International Journal of Web Based Communities*, 9(2), 212-232. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=lxh&AN=86966364&site=e=ehost-live>

Schaub, H. (2014). Too much screen time for American teenagers? *The Brookings Institute*. Retrieved from

<http://www.brookings.edu/blogs/techtank/posts/2014/08/20-teenage-screen-time>

Schmeichel, M. (2012). Good teaching? An examination of culturally relevant pedagogy as an equity practice. *Journal of Curriculum Studies*, 44(2), 211-231.

doi:10.1080/00220272.2011.591434

Sciurba, K. (2014). Texts as mirrors, texts as windows.

Journal of Adolescent & Adult Literacy, 58(4), 308-316. doi:10.1002/jaal.358

Sherer, P., & Shea, T. (2011). Using online video to support student learning and

engagement. *College Teaching*, 59(2), 56-59. doi:10.1080/87567555.2010.511313

Sleeter, C. E. (2012). Confronting the marginalization of culturally responsive pedagogy.

Urban Education, 47(3), 562-584.

doi:<http://dx.doi.org/10.1177/0042085911431472>

Spencer, S. L. (Eds), *Clash!: superheroic yet sensible strategies for teaching the new literacies despite the status quo*. Charlotte, NC: Information Age Pub.

Sylwester, R. (1995). *A celebration of neurons: an educator's guide to the human brain*. Alexandria, VA: Association for Supervision and Curriculum Development.

Trier, J. (2007). "Cool" engagements with YouTube: Part 1. *Journal of Adolescent & Adult Literacy*, 50(5), 408-412. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ752515&site=ehost-live>; <http://dx.doi.org/10.1598/JAAL.50.5.7>

Tuck, E., & Gaztambide-Fernandez, R. (2013). Curriculum, Replacement, and Futurity. *Journal of Curriculum Theorizing*, 29(1), 72-89.

Tyler, D.K. (2011). New media as instructional supports in inclusive classrooms. In

Vavra, S., & Um, E., Plass, J. L., Hayward, E. O., & Homer, B. D. (Eds). Emotional design in multimedia learning. *Journal of Educational Psychology*, 104(2), 485.

United States Census Bureau. (2015). Retrieved from

<http://quickfacts.census.gov/qfd/states/27/2707966.html>

Williams, B. (1996). The nature of the achievement gap: The call for a vision to guide change. In B. Williams (Ed.), *Closing the achievement gap: A vision for changing beliefs and practices*. Alexandria, VA: Association for Supervision and Curriculum Development.

Willis, J. (2014). Neuroscience reveals that boredom hurts. *Phi*

Delta Kappan, 95(8), 28-32. doi:10.1177/003172171409500807

Wynn, S. (2011). Superheroic resourcefulness: Expanding literacy and engagement through youtube. In Vavra, S., & Spencer, S. L. (Eds), *Clash!: superheroic yet sensible strategies for teaching the new literacies despite the status quo*.

Charlotte, NC: Information Age Pub.

Young, L. A. (2013). *How the use of culturally relevant literacy strategies affects student motivation*

Younger, D. W., Duncan, J. E., & Hart, L. M. (2013). *Tuning into YouTube in the classroom: Improving assessment scores through social media*. ().Online

Submission. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED543108&site=ehost-live>