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REPRODUCING THE STATUS QUO IN THE MIDDLE SCHOOL ENGLISH
CLASSROOM: A CRITICAL EXAMINATION OF LITERACY LEARNING VIA
PERSONALIZED LEARNING TECHNOLOGY

by

Michele L. McConnell

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

August 2021

Dissertation Committee

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TITLE OF DISSERTATION: REPRODUCING THE STATUS QUO IN THE MIDDLE
SCHOOL ENGLISH CLASSROOM: A CRITICAL EXAMINATION OF LITERACY
LEARNING VIA PERSONALIZED LEARNING TECHNOLOGY

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ABSTRACT

Personalized learning technology (PL Tech) is a growing educational reform movement supported by federal grant dollars. As a burgeoning educational movement, no research has been conducted to explore the potential effects of such structures in supporting student literacy learning. Additionally, current education reform research often lacks the perspective of the students experiencing the reform. Therefore, this study sought to examine the lived experiences of middle school students using PL Tech to understand what structural and cultural arrangements influenced students' literacy learning.

Portraiture, a qualitative methodology, was employed to conduct the study at a charter school in Fresno, California implementing PL Tech for all students grades 5-8. Over 4 months, various documents and artifacts were analyzed, observations logged, individual unstructured and semi-structured interviews with 4 middle school students and school personnel conducted, and 2 student focus group interviews conducted. All data were coded and analyzed using the Zoom Model through the lens of Race Critical Code studies and Culturally Historic Responsive Literacy Framework.

Findings from this study suggest that PL Tech impacts the relationship students create with learning and literacy. Challenges were found in relying upon a platform to deliver learning experiences rather than relying upon highly trained educators. Students reported becoming efficient readers but experiencing stress associated with literacy and learning due to constant assessments and pacing. Learning was viewed as a set of disparate skills and situated within coded inequities. Marketed for student learning, PL Tech was found to be personalized for the site rather than the students. The implications

from the study suggest that state-level education policy for bilingual education, teacher evaluation processes, and the desire for equitable learning contexts for all students is at odds with the PL Tech platform implemented in this study. More research is needed on PL technology to better understand the learning science informing the development of the PL tech systems and on how PL technology impacts literacy learning beyond high school.

DEDICATION

This dissertation is dedicated to the memories of my beloved grandmother, Maud Davis, and my grandfather, Wally Johnson. Without their enormous personal sacrifices to provide care for me each summer and to teach me how to garden, preserve fruit, sew, quilt, cheat at cards, and to both love and laugh during the hard moments of life, I would not be the person I am today.

And to my mom, Diane Weber. You have mastered and modeled what it means to persevere.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

In March 2019, many school children were sent home with laptops, or none at all, to complete the school year via distance learning due to COVID-19, a highly contagious virus. With the advent of the 2020-2021 school year, many school districts across the nation have opted to begin the school year with distance learning. While parents and physicians have expressed concern over the amount of screen time required, neither appear to be aware that more than 89% of Grade 3 through Grade 12 students report using some form of digitalized learning in their classrooms regularly (Wexler, 2020). Personalized learning technology, in which students may spend up to 4 hours a day learning online from a pre-created curriculum, is used quite regularly in classrooms across the United States. Summit Learning, owned by the Zuckerberg Foundation, claims to be in 380 schools (Barnun, 2019), Cyber High operated by Fresno County School is used in over 1,000 schools (Cyber High, 2020), and Edgenuity owned and operated by Weld North Holdings is used in 20,000 (Edgenuity, 2020) schools. These are just a few examples of personalized learning technology platforms that exist. Of concern is that there is little evidence that such technology supports learning and little to no evidence that these technologies support literacy learning, especially for the most vulnerable populations (Wexler, 2020).

The literacy learning within the personalized learning technology platforms fail to define literacy learning as a social process and only prepare students to succeed on high stakes assessments via direct instruction of discrete skills. While there may be short term assessment gains, retention is often lost (Wexler, 2020). This is problematic as literacy is

linked to educational attainment (OECD, 2013), greater employment opportunities (OECD, 2013; Willms, 2003), higher income (Ross & VanWilligen, 1997), improved health (Ross & VanWilligen, 1997), and higher rates of civic engagement, such as voting and volunteering (NEA, 2007; OECD, 2013).

Significance of the Problem

Numerous studies tell the story of academic and opportunity gaps for marginalized youth in the United States (Blume, 2015; Center for Education Statistics, 2015; Lynn, 2014; Sleeter, 2012), yet fail to account for the declining literacy rates of all students in the U.S. (OECD, 2013) thereby, creating a deficit narrative for students of color rather than motivating an examination of systemic practices. There have been some important exceptions. Some research has focused on the structural inequalities in education, such as funding and instructional practices, and documented them as one of the barriers systemically restraining access to opportunities beyond K-12 for youth of color and those living in poverty (Kozol, 2008). These well documented systemic barriers disproportionately affect youth of color, English Language Learners, students with disabilities, and those living in poverty (Blume, 2015; Center for Education Statistics, 2015; Lynn, 2014; Sleeter, 2012) have pointed how they have contributed to higher dropout rates and lower graduation rates for marginalized youth, and are directly connected to the School-to-Prison Pipeline (StPP) (Fabolo et al., 2011). The StPP is the link between school and incarceration for marginalized youth often due to learning and discipline policies in K-12 schools and directly connecting to literacy learning (Gregory, Skiba, & Noguera, 2010; NEA, 2007).

In the fall of 2015, 50.1 million pre-kindergarten through 12th grade (PK-12) students attended school within the United States, of which only 24.7 million were White (National Center for Education Statistics, 2015.). The largest groups of non-White PK-12 students were Hispanics (13.1 million) and Blacks (7.7 million; National Center for Education Statistics, 2015.). That same year, California K-12 students participated in a new Common Core Standards assessment from the Smarter Balanced Consortium (SBAC). While the assessment was designed to measure critical thinking skills more accurately, the first set of results demonstrated that a literacy gap by race continues to exist (Lynn, 2014) and has widened in the state of California. According to the data, 69% of Asians achieved the state's targets, whereas only 49% of White, 21% of Latino, and 16% of Black students met the state targets (Blume, 2015).

This racial achievement gap for California is also documented in the 2015 eighth-grade NAEP reading scores. Black Californian eighth-grade students scored, on average, 26 points below their White counterparts and Hispanic students scored 25 points below white students (Center for Education Statistics, 2015). The fourth-grade reading assessment gap is slightly larger at 33 points between whites and Blacks and 31 points between whites and Hispanics (Center for Education Statistics, 2015). These numbers are not much different than the scores from 1998. In fact, NAEP has documented a racial achievement gap since 1971 (Sleeter, 2012) for fourth, eighth, and 12th-grade students. New research out of Stanford University further confirms the racial achievement gap. Researchers are now able to compare data and trends for third through eighth-grade students from 11,000 districts across the United States (Sparks, 2016). Researchers found Black students lag behind their peers four to five grade levels or 1.5 standard deviations

on the NAEP assessments in university towns like Berkeley, California and Chapel Hill, North Carolina (Sparks, 2016). Yet, the research and news reports fail to question what is happening in the educational system that leads to this disparity of literacy learning and place blame upon students due to their race, ethnicity, language, or socioeconomic status.

Additionally, opportunity gaps continue to widen. They are related to academic achievement gaps in that learning outside the classroom enhances learning inside the classroom (Welner & Carter, 2013). Children living and attending schools in low-socioeconomic communities are less likely to be involved in after school enrichment activities as compared to their wealthier peers (Garcia & Weiss, 2017). Such activities that provide opportunities for some students include involvement in paid for academic tutoring and support, athletics, music, the arts, and travel. To raise test scores, many schools in low-socioeconomic neighborhoods have moved funding away from music and the arts to test prep and to create academic programs geared at increasing and improving academic skills (Steen & Noguera, 2010); therefore, supporting the learning gaps. Learning opportunities outside of school also lead to higher literacy rates (Welner & Carter, 2013) as background knowledge and experiences are built. Without school support for enrichment activities, youth in poverty are less likely to have non-academic experiences at school, thereby creating a world of haves for the wealthy and have-nots for those in poverty. Yet, this is also a deficit view of what outside school experiences best support and maintain literacy learning. The lack of critically questioning what literacy learning is happening outside of schools supports maintaining the opportunity gap mentality as only certain activities are deemed supportive of academic growth.

Based on the accountability data and adopting a critical lens, one begins to question if educational reforms have been well operationalized at the state or national level. One cause of failed education reform is the inability to redesign the one-size-fits-all or factory model of education schools modeled to serve the Industrial era, to a model that better serves the needs of the 21st century. Within the factory model, assumes “one size fits all” and students are seen as needing equal treatment regarding their learning experiences and developmental needs. A new system of education is needed that will offer a structure of education that is student centered and responds to the needs of all students. One approach to moving beyond the factory model is personalized learning (Lee, 2019).

Personalized learning, a reform movement from the 1990s, has gained popularity as a promising practice to address the needs of a diverse youth population. Personalized learning stems from Individualized Education Program (IEP) for youth with disabilities and focuses on student-centered learning, student empowerment and choice, collaboration between students and teachers, and the creation of both short and long term personalized goals (Basham et al., 2016; Darling-Hammond, 2010; Lee, 2019; Patrick et al., 2016). Current personalized learning practices include a more holistic look at providing supports for both mental and physical health, such as counseling and vision checkups, alongside academic supports (Darling-Hammond, 2010; Lee, 2019).

Theoretical Framing

While critically assessing and researching literacy practices have been carefully studied, literacy learning via personalized learning technology has yet to be critically studied. For this purpose, the critical lenses of The New Jim Code (Benjamin, 2019) and

the Culturally Historic Responsive Literacy Framework (Muhammad, 2020) will support this research.

The New Jim Code is the theory of Race Critical Code studies (Benjamin, 2019), which is a merging of Critical Race Theory (CRT) and science and technology studies (STS). The term, The New Jim Code, is based upon the work *The New Jim Crow* by Michelle Alexander (2012) in which the U.S. prison system, using colorblind ideologies, permits legalized discrimination. The term, Jim Crow, was introduced in 1832 during a minstrel show in which white people mocked and disparaged Black people. The term came to be used for legalized segregation in the south from the 1890s through the 1950s. Benjamin (2019) stated that Jim Crow laws were “a code of behavior that upholds white supremacy” (p. 9) and the modern Jim Crow code for the term Black may refer to anyone considered to be “poor, immigrant, second-class, disposable, unwanted, detritus” (p. 9). What Benjamin (2019) argued in merging CRT and STS theories was that like computer codes, laws and race identification are codes created and maintained for purposes of inequity and the status quo. She hoped that critical race code studies expose the link between the Black Box, a metaphor in STS used to describe how the social production of science and technology are hidden from people’s view of the race-neutral laws of The New Jim Crow, which serve as tools for white supremacy and how mass technology supports coded inequity.

There are four dimensions of The New Jim Code:

1. Coded inequity is made desirable across many settings and for many participants;
2. Appears to rise above human subjectivity or have a sense of impartiality;

3. Has personalization or a focus on the individual over communal learning; and
4. Ranks people according to merit within a forward-thinking, predictive progress framework.

To demonstrate how race, ethnicity, and gender become coded characteristics, Benjamin (2019) called upon the works of Foucault (1995) and Fanon (2008) to show that technology is not a neutral tool as data sets and algorithms are a culmination of tools, people, power structures that privilege interpreting the world in one way. Based on monitoring and surveillance, these algorithms and programs are designed to modify and reward our behaviors (Benjamin, 2019; Foucault, 1995). The behavior modifications, changed via nuanced suggestions in the code, reinforce new actions leading to mass social production of behaviors deemed industrious and valuable (Foucault, 1995). This form of coded inequity and control makes discrimination faster and easier as it is not just one person, but a system of sleek, sexy technology, a symbolic device in our modern culture (Benjamin, 2019).

The laptop has become a symbolic device for many schools as it demonstrates wealth and desire to make tech equitable for all children. Yet, as Benjamin (2019) points out, technology companies own education, making billions of dollars in profit per year, under the guise of creating programs as solutions for the learning “gaps” (p. 15) and packaged as “personalized” (p. 17). The data used to create the gap mentality is a distorted understanding of people and the system (Fanon, 2008). The gap is used to talk about differences in children without looking at and critiquing the system. This action leads to what Fanon (2008) calls *epidermalization of inferiority* in which children of color hold on to the story of inadequacy as mass society repeats the story.

Personalization, a form of power, separates people and disallows them the opportunity to share stories and experiences, which supports maintaining the status quo (Foucault, 1995; Lea, 2014). Allowing private technology companies to develop big tech, especially in the realm of education, without a system of checks and balances as Criticality, is supporting neoliberal practices (Benjamin, 2019). Benjamin (2019) shares that when we do examine and discover inconsistencies with school funding of tech, we can't merely say to put money back into textbooks, as without Criticality (Freire, 1970), we maintain support for what schools claim to be doing rather than examining what they do.

Muhammad (2020) shares that what schools are doing is maintaining the status quo by holding a deficit lens of the abilities of students of color. Maintaining the status quo is done by negating historical and cultural literacy practices of students and ensuring that such practices are erased from schools. These deficit views lead to gap mentalities in which students are assessed by what they lack rather than what they have (Bomer, 2011; Muhammad, 2020).

Ahistorical literacy methods tend to be tied to basic skills and proficiencies, a practice instituted by most schools today (Muhammad, 2020), which was not always the case for Black people in the U.S. In researching Black literary societies of the 1830s and beyond, Muhammad (2020) discovered a rich literary tradition shaped by not only enjoyment of reading and writing, but also by the connections of literacy to freedom and action to disrupt racism through public addresses and articles. Literacy was a tool for freedom to fight back and navigate the system. Additionally, literacy learning was not an individual practice. Literacy learning was a collective and communal pursuit in which people of all ages would share knowledge to lift the community (Muhammad, 2020).

Collective or communal learning is in “direct competition with schools today, as schools are largely grounded in competition and individualism” (Muhammad, 2020, p. 26).

Muhammad (2020) discovered 10 central lessons about literacy instruction in her studies of African American literary societies. These 10 lessons are:

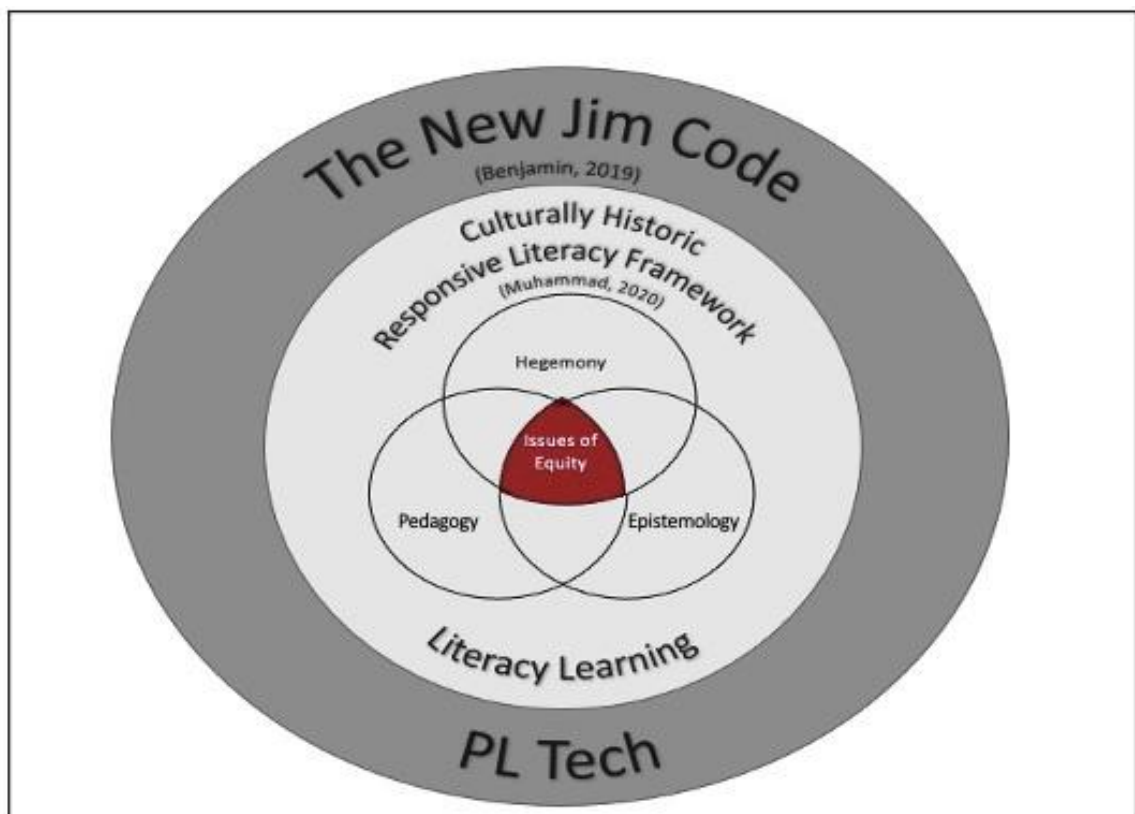
1. Literacy learning combines skills and learning about self and equity.
2. Literacy was foundational to all other learning.
3. Oral and print literacies were learned simultaneously.
4. Literacy was responsive to the time and people.
5. Literacy included aesthetic fulfillment.
6. Learners relied upon each other’s way of knowing in order to learn.
7. Literacy learning was collaborative, and elders learned from the youth and vice versa.
8. Literacy involved reading and writing a variety of text types for a variety of purposes and was made public.
9. Literacy included Criticality.
10. Identity development was cultivated with literacy learning.

From these ten lessons learned, Muhammad (2020), relying on the theories of Funds of Knowledge (Moll et al., 1992; Moll & Gonzalez, 1994), Cultural Modeling (Lee, 1995), and Culturally Sustaining Pedagogies (Paris, 2012), created the historically responsive literacy framework. The historically responsive literacy framework conceptualizes four pursuits of literacy and a way to analyze literacy learning with personalized learning technology. The four pursuits include:

1. Literacy as Identity Meaning-Making: the ability of students to read, write, and define their lives.
2. Literacy as Skill: the more traditionally defined cognitive acts of reading, writing, and speaking.
3. Literacy as Intellect: literacy is the root of all of discipline learning.
4. Literacy as Criticality: the ability to question power structures as a way to counter inequities.

Figure 1

Theoretical Framework



Note: Figure 1 represents the theoretical framework of this study. Issues of equity are embedded in literacy learning and PL technology. Muhammad's (2020) Culturally Historic Responsive Framework is used to analyze the literacy learning presented in PL

Technology while Benjamin's (2019) New Jim Code or Critical Race Code Studies framework is used to analyze PL Technology.

Relevancy

Personalized Learning Technology (PL Tech) has yet to be researched in-depth as it is just beginning to enter the education world en masse. PL Tech allows for greater surveillance of student academic performance through standardized curriculum and data collection via constant assessments. Besides, PL Tech is created and marketed through federal and corporate school reform funding initiatives such as the Race to the Top District Competition and Next Generation Learning Challenges for districts with diverse populations, including high numbers of students with special needs, refugee and immigrant populations, and students living in poverty (Race to the Top - District Competition Background, 2012). Corporate school reform is an “interrelated set of post-welfare, neoliberal policy initiatives that situate market competition and business management as the key to education improvement” (Roberts-Mahoney et al., 2016, p. 2); meaning, that PL Tech curriculum is not a neutral tool as it is situated within a specific system and relations of power (Foucault, 1995).

There are two visions regarding the purpose of school: (a) the traditional vision in which students are educated to fit into existing society, and (b) the progressive vision in which students are educated to change society (Sadovink et al., 2018). In other words, do schools work to maintain the status quo or to disrupt the system?

Within these two visions, there are four major perspectives: conservative, liberal, radical, and neo-liberal. The conservative view of education stems from Darwinian thought (Gordon, 1977) in that progress and success are based on individual motivation

and drive. Additionally, the conservative perspective, based on a free-market economy or capitalism, which promotes the idea of freedom through competition (Sadovink et al., 2018). The liberal perspective has its origins in the works of John Dewey. The liberal view holds that the free-market is a sound system, but needs intervention to support equality to balance economic and social outcomes between the rich and poor (Sadovink et al., 2018). A significant difference between conservative and liberal perspectives on education is that the liberal view believes that groups of people are affected by the structures of society, which works to create inequality within the system. A conservative perspective is one that is more likely to “blame the victim” for lack of motivation and lead to gap mentalities in which educational attainment gaps are focused on what students do not accomplish. A more radical critical perspective is often based on the writings of Karl Marx and connected to liberal ideas of inequity; however, this perspective does not agree that free-market ideologies and capitalism support emancipation for all people (Sadovink et al., 2018). Additionally, the radical perspective does not see deficiencies in individuals or groups as responsible for inequity as that view is “blaming the victim” (Ryan, 1971) and seeks answers within the system of education and those governing it. Finally, the neo-liberal perspective of education combines both conservative and liberal views arguing that free-market individualization with state intervention will support economic and social growth for all classes and races (Sadovink et al., 2018). Yet, the vision of education remains traditional in that the goal for students is to be educated to fit into the existing structure of society.

The tension between neo-liberal and radical perspectives affects the implementation of educational reform movements such as personalized learning

technology. Radical education reformers believe that throughout the 20th century, schools have maintained a factory model of education in which some students are tracked into basic-skills curriculum aimed at preparation for routine manufacturing jobs, and some are tracked into thought work via advanced placement or international baccalaureate courses (Darling-Hammond & Friedlaender, 2008; Kozol, 2008). Peters (2009) stated that personalized learning (PL) structures are a direct response to this factory model of education as students receive choice and competency-based learning practices. However, there is growing criticism of PL when applied to technology.

Purpose

Educational technology companies are offering their version of personalized learning delivered through technological platforms. These educational technology programs promise accurate assessment data for teachers and administrators to support efforts to create personalized academic learning goals for students. Federal grants were awarded to schools serving diverse low-income youth to purchase and implement personalized learning technology. Personalized learning technology (PL Tech) is a response to current educational reform movements; however, PL Tech is being scrutinized for its lack of attention to equity and empowering pedagogical practices (Cuban, 2018b; Herold, 2014). While culturally relevant methods, dialogic processes, and critical literacy practices have been shown effective for transforming high school classrooms and student achievement with diverse student populations (Delpit, 2008; Freire, 1970; Ladson-Billings, 1995; Lipman, 1995; Mayer, 2012; Moll et al., 1992), the high school English content provided to students via PL Tech has yet to be assessed for these important pedagogical practices.

The purpose of this research is to explore the lived experiences of middle school students using personalized learning technology in English classrooms in order to understand what structural and/or cultural arrangements may influence their achievement outcomes and the extent to which PL Tech is meeting the needs of a diverse group of students. Conceptual papers provide insights into social and political structures which may affect students using PL Tech (Peters, 2009; Roberts-Mahoney et al., 2016), yet no research has been conducted to explore the potential influence of such structures on students learning from their perspective and from the perspective of the educators who are charged with using this pedagogical strategy to engage and improve student learning. The majority of educational research on personalized learning technology focuses on student achievement via graduation rates, standardized assessments, and college attainment. Such research, while valuable to document the progress and deficiencies within various populations, reduces the complex practices of literacy (reading, writing, speaking, and listening) to nothing more than a number (Robbins, 2005). Additionally, such research is unable to determine if PL Tech pedagogical practices allow for empowering students to be active, critically literate participants within their education and the greater society.

This study will examine from the student and educator perspective how children's opportunities for learning are affected by the various daily interactions in the classroom setting as well as the structures and systems, which shape their school experience. To study the lived experiences of students using personalized learning technology in English classrooms, the following questions will guide this study:

1. How does PL Technology influence literacy learning among middle school students?
 - a. What literacy skills and knowledge are developed in the PL Tech Platform?
 - b. In what ways does PL Tech work (or not work) for a diverse student population in gaining literacy skills and knowledge?
 - c. To what extent, if any, is there variation in learning and achievement outcomes across socioeconomic status, gender, race, and literacy proficiency level?
2. What social and structural factors in the classroom and the school influence literacy learning in a PL Tech environment?

CHAPTER TWO

LITERATURE REVIEW

The following review of the literature analyzes theoretical, philosophical, and empirical texts. The section begins with defining personalized learning and explains the moves towards reconceptualizing personalized learning with the use of technology. The call for personalized learning technology by the federal Every Student Succeeds Act (ESSA) and critiques of personalized learning technology are presented. Then an overview of the benefits of literacy and best practices in literacy are provided. The review concludes with implications for the research study.

Personalized Learning

The history of personalized learning is murky, as some claim it goes back to B.F. Skinner and others to Maria Montessori or Dewey (Waters, 2017). Determining a universal definition of personalized learning is akin to *The Blind Men and The Elephant*, an Indian parable that tells of several blind travelers who come across different parts of an elephant during their journeys. Each blind man holds a different perspective on what the elephant is and its purpose. Defining personalized learning is much the same. Each party invested in personalized learning has a different definition and purpose; however, all agree that personalized learning is student-centered and offers many promises. The first promise is that PL is equity-based so that all students thrive and succeed (Darling-Hammond, 2010; Patrick et al., 2016). Additionally, since feedback to learners is an integral process to PL, student and teacher relationships need to be central to personalized pedagogies (Basham et al., 2016; Darling-Hammond, 2010; Patrick et al., 2016). Personalized learning promotes student agency (Darling-Hammond, 2010) through

allowing learners to decide when, how, and what they learn (Basham et al., 2016; Darling-Hammond, 2010; Patrick et al., 2016). By allowing students to make these decisions, personalized learning disrupts the system and the one-size-fits-all factory model of schooling (Darling-Hammond, 2010; Horn & Staker, 2015), fostering independence from the heavily relied upon system (Illich, 1971).

Using college acceptance rates as a baseline for success, Darling-Hammond and Friedlaender (2008) and Darling-Hammond (2010) found personalized learning proved successful at four different charter high schools. All four schools send 80-100% of their graduates to colleges. It was unclear as to what percentage of the students who entered the high schools as freshmen continued to graduation. The charter schools opted not to focus on personalized learning technology or personalization as individualized content and skill-based pathways. Rather personalized learning structures were implemented through creating small learning communities, focusing on long-term student and adult relationships, creating advisory teams for counseling and family supports, reducing teacher to student pupil loads, explicitly teaching academic skills with flexible supports, making real-world connections through service learning and internships, community involvement, and using culturally responsive teaching practices (Darling-Hammond, 2010; Darling-Hammond & Friedlaender, 2008). These charter schools are not relying on government regulations to guide their practice; rather they report to be focused on what is best for their students and communities (Darling-Hammond & Friedlaender, 2008).

Personalized learning is not without critique. Basham et al. (2016) studied 12 schools within an urban district implementing personalized learning pathways rather than personalized structures and found enormous pressure put upon students to make decisions on best practices for their learning. These decision making processes required a level of

self-regulation and self-knowledge that many students struggled with and teachers struggled to support (Basham et al., 2016). Peters (2009) claimed that the history of personalized learning is linked to mass customization practices from the business world. While it does empower people in the beginning as they make decisions for their learning, ultimately the system markets the best choices for the people to select from. The form of personalization stems from the power mechanism of standardization and exclusion (Foucault, 1995; Lea, 2014). Standardization creates a power dynamic by determining what is considered valuable and acceptable regarding content and best ways of knowing (Lea, 2014). This practice excludes alternative ways of constructing knowledge and may privilege some forms of capital over others. Privileging some forms of knowledge over others can be highly damaging for English learners, Standard English learners, students with Special Education designations, and students from various cultures. This shift from a possibly democratizing pedagogy to a standardized individualized pedagogy is underway with the addition of technology.

Standardizing Personalized Learning

On May 22, 2012, then-Secretary of Education Arne Duncan, announced the amended Race to the Top District level FY 2012 (RTT-D FY12) competition. The previous Race to the Top competition in 2009 focused on the Absolute Priorities of implementing Common Core Standards, STEM, and performance-based teacher evaluations. RTT-D FY 12 appropriated \$550 million from Congress, for which 16 grants in the amount of \$10-41 million were awarded. The major amendment to RTT-D FY12 was the Absolute Priority 1: Implementing Personalized Learning Environments. Absolute Priority 1 required applicants to:

design a personalized learning environment that will use collaborative, data-based strategies and 21st-century tools such as online learning platforms, computers, mobile devices, and learning algorithms to deliver instruction and supports tailored to the needs and goals of each student, with the aim on enabling all students to graduate college and career-ready. (Race to the Top - District Competition Background, 2012, p. 2)

A competitive preference priority was built into RTT-D FY12. The U.S. Department of Education gave priority to LEAs who could demonstrate integrating public or private resources to support Absolute Priority 1: Personalized Learning Environments. The partnership would need to describe how services for social-emotional needs, behavioral needs, and acculturation for immigrants and refugees would be implemented. Acculturation is the process where the dominant culture and non-dominant culture construct an encompassing culture together (Nieto, 2000; Sleeter, 1992), which can only be accomplished through a deeper understanding of race and culture. Similar to transformative pedagogy, teachers need to not only know themselves, but they also need to know their students and how the curriculum and context are responsive to the needs of the students to prepare for college or career. However, the United States routinely calls itself the great melting pot. In such a society, acculturation becomes assimilation into the White Anglo-centric culture (Sam & Berry, 2010). Berry et al. (2006), in a large international study ($n = 7,997$ youth from 13 countries), found that when immigrant students attempt to maintain their cultural practices, they are highly discriminated against. By calling out and naming immigrants and refugees as specialized groups, the U.S. Department of Education is sorting students into a social hierarchy of need (Foucault, 1995; Lea, 2014) and determining who has less social capital (Bourdieu, 1977,

2006). These students are often already labeled as “less than” within the system before they enter the classroom.

Following the RTT-D FY12 competition, in 2015 then President, Obama, signed the Every Student Succeeds Act (ESSA) into law. ESSA was written to replace No Child Left Behind Act (NCLB) of 2002. NCLB, signed by President George W. Bush reauthorized the 1965 Elementary and Secondary Education Act (ESEA), which was first signed into law by President Johnson as a response to his War on Poverty. The original goal of ESEA to improve educational equity for students from lower socioeconomic families remains the same by providing federal funds to districts that serve students in poverty. The three main components of the revised ESSA are: testing, accountability, and school improvement. Testing focuses on finding other means of assessment, while accountability looks at how many students are college and career ready. Under school improvement, ESSA calls for personalized learning and personalized learning technology; however, no definition of personalized learning is offered. This lack of definition is most likely because the RTT-D FY12 provides various promises, definitions, and implementation options for personalized learning.

Re-Conceptualizing Personalized Learning

Driving the education reform, RTT-D FY12 claims there is no one way to approach personalized learning (*Race to the Top - District Competition Background*, 2012; *Race to the Top - District Executive Summary*, 2012). However, the RTT-D FY12 Executive Summary 2012 goes on to describe what personalized learning for “high needs students” should incorporate. The grant application guidelines share the following: personalized learning should be linked to college and career-ready standards; students should know how to structure their learning to achieve goals; students are involved in

learning experiences connected to academic interests; students have exposure to diverse cultures, contexts, and perspectives “to motivate learning”; and students master critical academic content and the traits of goal-setting, teamwork, perseverance, critical thinking, communication, creativity, and problem-solving. This is to be accomplished through personalized digital learning opportunities (p. 7).

The mandate to teach perseverance, communication, and creativity assumes that students from low-socioeconomic communities do not already have such skills. This deficit model negates the ways of knowing the world that students come to school already having (Gay, 2010; Sleeter, 1992; Sleeter, 2012). If the educational system and teachers believe that students come to class as empty vessels to be filled, they fall into the trap of the banking system of education (Freire, 1970, 2005) and risk losing the ability to build productive relationships with students as well as supporting the cultivation of critical consciousness (Lea, 2014; Sleeter, 2012). Such deficit models lead to categorizing students, which advantages some students as knowing over others as unknowing. Foucault (1995) claims that this is a mechanism of power that supports the status quo thereby not dismantling or disrupting the system.

In partnership with the Bill & Melinda Gates Foundation, the International Associate for K-12 Online Learning (iNACAO) crafted a working definition:

Personalized learning is tailoring learning for each student’s strengths, needs, and interests including enabling student voice and choice in what, how, when, and where they learn – to provide flexibility and supports to ensure mastery of the highest standards possible. (Patrick et al., 2013, p. 4)

The Bill & Melinda Gates Foundation included four pillars for accomplishing personalized learning: (a) learner profiles to include strengths, weaknesses, and interests,

(b) personalized learning paths with goals and objectives, (c) individual mastery, and (d) flexible learning environments (Patrick et al., 2013).

Assessing PL Tech

The Rand Corporation, funded by the Bill & Melinda Gates Foundation, produced a report evaluating 40 schools over a 3-year period that implemented personalized learning technology. All schools received funding from the Next Generation Learning Challenges (NGLC) initiative. The technology used within the personalized structure provided data and assessments as well as instruction for math, science, and literacy. Using MAP assessment data from 32 of the 40 schools (5,500 students), a positive treatment effect of 0.09 in math and 0.07 in reading was estimated (Pane, Steiner, Baird, Hamilton, & Pane, 2017); however, the estimate was only statistically significant for math. This was found to be true for both charter and district schools. The statistical significance in math was only for Grades 6-8. While some growth was made in reading for Grades 6-8, data show a negative effect for Grades K-5 and nearly no effect for Grades 9-12. The report notes that previous studies similar to this one showed positive achievement effects for all grades in both reading and math. In the previous study, 62 schools were considered veteran implementers of personalized learning technology (Pane et al., 2017). This study may be limited due to the small sample size and all schools being new to personalized learning and personalized learning technology (Pane et al., 2017).

The Rand study also surveyed and interviewed teachers, school leaders, and student focus groups. The key takeaways highlighted in the report describe more challenges than benefits. Two hundred forty-one teachers within the 40 schools were interviewed. Teacher interview data illuminated a major tension between the need to meet standards, assess standards, and allow students choice in content (Pane et al., 2017).

As most of the personalized pathway choices were already created by software companies, the choice of content was not available to students and the choice of experience was not available (Pane et al., 2017). Additionally, most of the reading material via the digital platforms was not engaging or exciting for students (Pane et al., 2017). Pane et al. (2017) surveyed 9,294 students in fall 2014 and 9,058 in spring 2014. The student survey response rate was 71%. Student survey data supports the teacher interview data. When asked if they worked on different topics or skills than their peers during class time, only 13% said always, 22% most of the time, 41% sometimes, and 24% never (Pane et al., 2017). Students were also surveyed and provided self-reported data about their behaviors. Behaviors were considered to be: finding the main idea in reading, creating a to-do list to meet goals, and listening to the teacher. When asked if their interests were taken into consideration, only 16% said it was very true and 39% said it was somewhat true. Survey data also shows that choice of instructional materials is limited to discussing learning progress with teachers and parents. More concerning were the questions about English class practices. Of the six questions asked about English classrooms, only 4,755-4,803 students out of 9,254 surveyed responded. On average 35% of the responding students claimed there was little to no discussion about personal points of view when reading, making connections to text, discussing how time or culture affects an author's writing, discussing symbolism, debating what is read, or working with writing peers (Pane et al., 2017). Each of these is critical to student-centered learning, moving students into the discourse of power (Freire, 1970, 2005; Mayer, 2012; Mehan & Cazden, 2015), and empowering them to interact in society (Mirra et al., 2018).

The 16 school districts who received RTT-D FY12 grants ranging from \$10 million to 41 million dollars all supported students who qualified for free and reduced

lunch and from diverse racial and ethnic backgrounds. As part of the grant award, districts are to provide progress reports on how they have used the grant funding. Measuring the success of personalized learning through RT-D FY12 competition is challenging for the scope of this literature review due to the differentiated success measures each district included in the grant application. As of 2014, all 16 districts reported an increase in the use of and purchase of technology and personalized learning software (Atkeson & Will, 2014). Seven of the districts reported a positive increase in state standardized assessment scores (Atkeson & Will, 2014). Only three of the districts shared an increase in building partnerships; one of which included sending students to the local university to earn college units while in high school (Atkeson & Will, 2014). The challenges reported by the districts include the tension between standards coverage, national standardized testing, and the philosophy of personalized learning and student choice. Reading teachers reported concerns about the quality and purpose of reading software used in personalized learning technology platforms (Atkeson & Will, 2014). Districts also reported concerns about the sustainability of personalized learning once the grant funds run out due to the increased need to support teachers analyzing the various forms of data, selecting best individualized pathways for students, and reducing class sizes (Atkeson & Will, 2014).

PL Tech Critiques

Critiques regarding student data privacy, best educational practices, and the quietly shifting purpose of education are coming to light. Students at a Brooklyn high school recently protested the use of the Summit Learning platform, a program designed with engineers from Facebook, due to concerns about the privacy of their personal information and lack of deep learning offered by the platform (Strauss, 2018). Students

are turning into entities of data and have no control over how the data are collected, what is collected, and how they are used (Herold, 2014, 2018). One of the biggest concerns is that once data exist regarding content skills and knowledge, the label will carry forward and possibly hinder what learning the technology decided to expose students to (Herold, 2014). Yong Zhao, a distinguished professor and researcher of online learning, has even raised concerns about algorithms inability to consider how mistakes aid the learning process, thereby turning learning into a mechanical process rather than a human endeavor (Cuban, 2018b; Herold, 2014). The use of data to monitor and regulate activities may be seen as a form of surveillance and control (Foucault, 1995) and used to mask hegemonic practices, which deny equitable learning (Lea, 2014).

As demonstrated by the student protest in Brooklyn and the challenges noted by teachers in the RTT-D FY12 reports and Rand report, PL Tech has yet to provide promising student-centered, culturally relevant, and empowering educational practices. Currently, PL Tech has not been able to provide learning for academic and critical writing, complex mathematical reasoning, scientific reasoning, or social studies curriculum (Cuban, 2018b). Nor does PL Tech offer the choice of what students want to learn (Cuban, 2018b), negating the choice touted by education technology companies: iNACOL, the Bill & Melinda Gates Foundation, and RTT-D FY12. The lack of a clearly defined set of principles for PL Tech adds to confusion regarding implementation as each variation of PL Tech comes with its own philosophy and purpose (Cuban, 2018a; Herold, 2018) with most implementation falling on teacher-centered practices (Cuban, 2018a). The culture of learning created by PL Tech is a culture of one without collaboration; thereby, not leading to rich discourse or teamwork (Foucault, 1995; Friesen, 2010; Herold, 2018; Sparks, 2018a, 2018b; Sulzer, 2018).

The subtle shift from student-centered to individualized teacher-centered practices demonstrates a shift in the purpose of education for students in poverty. Sulzer (2018) notes that like textbooks, digital educational spaces allow for political agendas. The chief impact officer of AltSchool, founded by ex-Google employees, supports this notion by stating that PL Tech is used to support humans efficiently make timely, better decisions (Herold, 2018). The ability to make decisions effectively negates the learning process that is gained for more complex thinking and understandings (Herold, 2014). The goal is then to create efficient workers rather than citizens prepared for a democratic society (Foucault, 1995; Lea, 2014; Roberts-Mahoney et al., 2016).

Issues of Equity

While PL Tech has the potential to create new access to learning and transform high school English classrooms, questions of epistemology, pedagogy, and hegemony exist within this burgeoning field. Rhoads, Bedan, and Toven-Lindsey (2013) developed a theoretical framework to analyze power and democratic education in massive open online courses (MOOCs) within higher education. Within their framework, the researchers used the theories of Michel Foucault and Paulo Freire to organize issues of culture and power within MOOCs around three problems: 1) the problem of epistemology or the narrow defining of knowledge conveyed online, 2) the problem of pedagogy or the limited understanding and implementation of empowering teaching, and 3) the problem of hegemony or the lack of acknowledgment of inequities related to the development of course content (Rhoads, Bedan, & Toven-Lindsey, 2013). As presented, the three problems may influence issues of equity within secondary schools implementing personalized learning technology even more than MOOCs. MOOCs are

often designed by professors within higher education, whereas personalized learning technology is designed by companies.

The Problem of Epistemology. Current high school English classrooms within the state of California are guided by the California Common Core State Standards (CaCCSS) and The English Language Arts/English Language Development Framework (ELA/ELD Framework). Both documents stress the goals of critical analysis and thinking. They provide standards to be met by grade level and encompass the following strands: reading literature, reading informational text, listening, speaking, and writing. The CaCCSS states that students should:

readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digital media. They actively seek the wide, deep, and thoughtful engagement with high-quality literary and informational texts that builds knowledge, enlarges experience, and broadens worldviews. They reflexively demonstrate the cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic.

(CDE, 2013, pp. 2-3)

Throughout the CaCCSS, critical thinking and reading are repeatedly stated as necessary literacy goals to support navigating a global and complex society. Critical thinking and reading are skills-based actions, which seek the logic and evidence to support the claim being made (Burbules & Berk, 1999). In order to seek out evidence and determine claims, one must have the motivation to want to seek the evidence (Burbules & Berk, 1999). What critical reading and thinking do not do is question the power structures and

belief systems guiding the logic, claims, and/or the culture within which the assumptions are based (Burbules & Berk, 1999); thereby lacking deep reading and questioning of text. Additionally, critical reading and thinking skills tend to be culturally biased towards Eurocentric males (Burbules & Berk, 1999); therefore, not taking the ethnically and racially diverse student population into consideration.

Critical reading as called for by the CaCCSS is both traditional in vision and aligned to neoliberal education reform policies. This form of critical reading is not to be confused with critical literacy, and inquiry-based practice, which questions the status quo as a form of meaning-making about the world (Robbins, 2005). The habits of critical reading defined by the CaCCSS establish normed behaviors for students and acceptable teaching practices for teachers. Such standardization of education is a mechanism of power that works to maintain the current structures within society rather than to transform them (Foucault, 1995; Lea, 2014). These forms of knowledge are privileged and when students individually demonstrate these practices, they are often rewarded. Foucault (1995) calls this mechanism of power: regulation. Regulation works to give certain forms of knowledge a higher status or reward (Lea, 2014).

Freire (1973) believed that knowledge is communal and co-constructed. Communal and familial knowledge have also been coined “funds of knowledge” or the historically and culturally accumulated sets of understandings and knowings gained from areas outside of school (Moll et al., 1992). The act of accepting spaces outside of school as spaces of learning supports the notion that learning is communal and not owned or possessed by one group of people (Robbins, 2005; Shannon & Shannon, 2001). The ELA/ELD Framework acknowledges that students are diverse, come from diverse backgrounds and experiences. The Framework also acknowledges that these diverse

family and community resources are assets to the classroom. However, these forms of knowing are not assets to be included and for others to learn from, rather they are to be “built on for developing English” (p. 13) for each student. This narrowing or disconfirming use of communal knowledge within the classroom maintains a “utilitarian and individualistic nature” (Darder, 2017, p. 100) or status quo. Through excluding other ways of knowing the world, students are often considered less than in relation to the normed dominant group (Lea, 2014). As Au (2009) notes, not having classes based in community knowledge leads students of color to feel excluded. This exclusionary form of power is used to maintain the system rather than to transform it (Foucault, 1995).

Forms of knowledge related to the physical being are often ignored in the classroom or are highly controlled and maintained. The physical body is the self, the person, and provides access to student identity through hairstyle, gestures, and speech patterns (Darder, 2017). Creativity and imagination stem from the physical self as it is the place from which we first feel emotion (Freire, 1973). Physical and emotional forms of knowledge are often disregarded in the classroom (Darder, 2017; De Sousa Santos, 2016), as there is a push to meet all the content standards provided by the state. In order to demonstrate knowledge of the world and assert themselves into the classroom space, students participate in acts of resistance with their physical beings (Freire, 1973) such as non-normed speech patterns and language choices, piercings, clothing styles, and hairstyles (Darder, 2017). Such forms of youth resistance may or may not function in their interest as there is the possibility that the resistance is already pre-determined by the system to detract from learning deeper forms of democratic, communal resistance to the system (Freire, 1973) as demonstrated by dress codes, rules, and types of class activities.

The CaCCSS also calls for high school students to read a variety of literature to broaden mindsets and knowledge of the world; however, within the California Department of Education's Recommended Literature for 9-12 English Language Arts classes, only 651 titles and resources are shared (CDE, 2014). Of those 651 titles, 292 are listed as being from cultures other than Western/European cultures. However, it should be noted that many texts are improperly labeled. For example, John Steinbeck's *The Pearl* is labeled as a Latino American text. The distribution of non-multi-cultural literature functions as a means to control the reading agenda of students (Foucault, 1995; Lea, 2014). Students who see protagonists unlike themselves are less likely to engage with the text while also realizing that society does not have a place for them (Banks & McGee Banks, 2012). This maintains power for those controlling the distribution of content while maintaining the status quo.

The Problem of Pedagogy. Student-centered learning has become the latest focus in education in which the teacher is no longer considered to be the “sage on the stage” lecturing students. Freire termed this type of teaching as the banking concept of education, a model in which teachers deposit knowledge directly into the heads of students who are considered to be like empty vessels waiting to be filled (Freire, 1973). This form of education systemically disempowers and negates the social construction of knowledge as described by Vygotsky (1978) and Freire (1973). More concerning is that the banking models of education keep students separated from each other and focus on individual achievement which is steeped in the myth of meritocracy leading students to blame themselves for not succeeding in the system (Darder, 2017). Additionally, students become objects in need of management who are led to the right answers via didactic questioning techniques (Darder, 2017).

In contrast, socially constructed pedagogical practices rely on inquiry, dialogic processes, and strong relationships between students and teachers. Opposite to the banking method, these methods attempt to humanize and empower students into becoming socially active citizens. The practices of humanizing pedagogies include: building and maintaining respect, holding patience, creating authentic learning and engagement opportunities, being empathetic, promoting social agency, and supporting students in seeing themselves as “social, historical, thinking, communicating, transformative creative persons” (Freire, 1973, p. 45). Palmer (1998) and Freire (1973) advocated for working with the whole student. Meaning that educational practices should include the growth of the student socially, emotionally, physically, spiritually, and cognitively. As noted in the section above, the physical objectification of students has led to more focus on classroom management rather than learning opportunities. At the state level, teachers are encouraged to focus on the cognitive abilities of students through the standards and assessments. The current CaCCSS and standardized assessments do not take into consideration aspects of learning outside of cognition.

Technology can offer both cognitive learning and communal learning through self-created networks built upon student affiliations and communities (Jenkins, Ito, & boyd, 2016). Leveraging technology in this manner offers the ability to build greater global and local communication skills thereby building critical consciousness (Freire, 1973) and improving the lives of students and their communities (De Sousa Santos, 2016; Jenkins, Ito, & boyd, 2016). It also provides a system in which students are regularly surveilled (Lea, 2014). PL Tech is often designed by companies and corporations and does not focus on open access to the Internet or building community. PL Tech gathers data on how students complete skills-based work and in turn the instructor holds

conversations about how to better attain the skill lacking. This form of surveillance becomes a norm in which both students and teachers lose both space and privacy to heavy regulation (Foucault, 1995). Rather than focus on the iterative cycle of research for improved self and community, the iterative cycle becomes a top-down conversation in which students and teachers rely on a mechanical system to guide the pedagogical practices; thereby negating growth of critical consciousness (Lea, 2014) as demonstrated in the Rand study. Such practices lack the negotiation of learning that happens when teachers work with students to determine errors versus misunderstanding of learning. Such knowledge is what guides reteaching or moving students forward with more challenging content and skills.

The Problem of Hegemony. Humanizing pedagogical practices envisioned by Freire in his seminal work *Pedagogy of the Oppressed* center on students and teachers co-creating the learning space. Freire (1973) does note that within this co-creation, the teacher is not seen as being on the same cognitive level of the students. The teacher continues to hold more content and pedagogical knowledge and incorporates the cultural and linguistic backgrounds into the classroom. How this knowledge is used and who gets to create content leads to the issue of hegemony.

According to Darder (2017), hegemonic classrooms exclude “decolonizing forms of knowledge, which are derived, more often than not, from the excluded cultural and linguistic sensibilities of students’ lived histories and experiences” (p. 100). For example, in an English classroom, students are not often allowed the opportunity to practice translanguaging, or moving between their various forms of informal language of home and community and the formal language of school. Focusing on isolated literacy skills monitored through standardized curriculum and assessments (Robbinson, 2005;

Willinsky, 1990) supports hegemony. Standardization of literacy allows for passive engagement with text rather than inquiry, which critically questions the status quo (Stachowiak, 2016). Additionally, many texts students read are selections from the cannon or selected by textbook and curriculum companies. The lenses through which these textbooks are selected are often incompatible with the culture and lived experiences of the students (Gay, 2002; Ladson-Billings, 1992, 1995).

The CaCCSS, as noted earlier, suggests that students need to be proficient readers prepared for a democratic society. Freire's ideal pedagogy strives for democratizing education; however, democracy also maintains a system of conformity that leads to hegemonic practices (Darder, 2017). An example of this is the belief that education will guarantee individual success in terms of economic gains. Freire (1973) speaks to this idea of economy by explaining that oppressors believe it is possible to commodify any object, including people. This creates a system of haves and have-nots in which the haves continuously take more than what is needed at the expense of the have-nots having much less. Apple (1979) argues that this process is built directly into the educational curriculum by not including controversial social debates, politics, and social ideologies into the classroom and through the focus of positivist linear scientific inquiry without critique as the goal. The argument is that if students are ignorant of the debates and conflicts within society, they remain unknowing of the various social strata and how the social strata operate. Darder (2017) furthers the argument that the hidden curriculum denies decolonized practices and knowledge thereby disallowing some students to join in the conversation and ways of knowing. This in turn affects a student's ability to be critically conscious.

Literacy

Literacy has the ability to counter issues of inequity as described above. To counter issues of equity described above within the English language arts classroom, a commitment to transforming pedagogical practices from the banking method of literacy teaching which focuses on measuring individual skill attainment and direct instruction to one with a focus on critical literacy is required. Nieto and Bode (2011) offer four components for building critical literacy classrooms. A critical literacy classroom includes: 1) challenging and disrupting stereotypes; 2) providing all students with resources to learn to their full potential; 3) relying on and using the strengths and knowledge students bring to school; and 4) creating an environment which uses critical thinking and builds agency.

This can be accomplished through close reading as offered by Lehman and Roberts (2013). In this practice, students read through a variety of lenses to examine word choice, structure, point-of-view, and search for meaning patterns. The workshop approach offered by Lucy Calkins and Fountas & Pinnell supports equity through a dynamic dialogic process between students and between students and the teacher (Stachowiak, 2016). Additionally, dialogic processes created in collaborative practices with multicultural texts (Bomer & Bomer, 2001) support diverse student bodies.

Interestingly enough, students who have spent numerous years in the traditional system prepared to fit into the current societal structures often struggle when faced with a classroom or pedagogical practice focused on eliminating hegemony. For example, Kivel et al. (1997) found that students who were introduced to de-hegemonizing teaching pedagogies often shut down at first as the level of personal attention and self-growth was new and confusing. It is only through maintaining the system as is that hegemony is allowed to take subtle forms within the classroom. Foucault (1995) offers that the use of

canonized literature and scripted pedagogical practices become a norm so that the people do not see the indoctrination by the dominant culture. It is through counter-hegemonic practices of critical multiculturalism, empowering pedagogies, and collaborative teaching and learning that the hegemonic narratives are countered (Anzaldua, 2007; Freire, 1973; Lea, 2014).

This section will provide an overview of the benefits of literacy and research that supports the claims of needed discourse practice in a classroom as well as criticality in which students become empowered, literate citizens.

Benefits of Literacy

Improved literacy rates can benefit individuals and global society (Hannum & Buchmann, 2003; OECD, 2013). The benefits of literacy shared in this section are based on three intensive literacy studies completed from 1994-2003 along with other surveys focused on employment and education levels. As noted by Patrick Riccards (2020), former chief of staff to the National Reading Panel, while the benefits of literacy learned from these surveys have been touted, no comprehensive reading reform has taken shape in the United States leaving us with many questions about the future of literacy and who designs programs for literacy.

Literacy and Educational Attainment

The International Survey of Reading Skills (ISRS), based upon two previous large scale literacy surveys was developed by both United States and Canadian researchers was administered in 2003. The researchers found that 60% of those surveyed who were found to be at higher levels of proficiency had completed post-secondary education and 50% of those who were found non-proficient had not graduated from high school (Greiner, Jones, Strucker, Murrar, Gervais, & Brink, 2008).

Additionally, the Survey of Adult Skills (PIACC) distributed to 166,000 adults between the ages of 16-65 in 22 OECD countries described similar results. More than 25% of adults who do not complete secondary education score as non-proficient readers (OECD, 2013). While international scores show the United States underperforms in literacy those in the United States who earn college degrees have greater literacy skills than those who not complete college (OECD, 2013). While both surveys demonstrate a positive relationship between educational attainment and literacy, there is no data offered from the surveys to show why this is true and if one precedes the other. Therefore, the reasons may be complex. For example, those who do not complete high school, may have low proficiency in literacy and drop out as early literacy issues lead to inequities later (OECD, 2013). Another reason may be that if one does not continue in education, the types of employment gained do not offer continued learning opportunities and there is no time for literacy (OECD, 2013).

More Reading Leads to Greater Proficiency

The ISRS and PIACC demonstrate that the more someone claims to read, the higher their literacy proficiency. Literacy skills need to be maintained by routinely reading (Wolf, 2018). Burgess and Jones (2010) in a survey of 209 mid-western college students found that by not reading routinely, reading skills declined and students were reported to remedial college reading courses. As students and adults replace reading time with television and video games, they have a greater chance of not maintaining reading skills or requiring remedial courses in college (Bradshaw, 2004; Burgess & Jones, 2010; NEA, 2007; Willms, 2003). Many college remedial courses do not count towards graduation and in California with AB705, many community colleges no longer have access to such courses.

Greater Literacy Correlated to Employment and Higher Income

The ISRS data indicate a positive relationship between literacy and employability. While 57% of those surveyed who scored a level 1 or 2 were employed, 77% of those scoring 3 or higher in literacy were employed (Greiner et al., 2008). The PIACC data also indicate a positive correlation between literacy and employability and income (OECD, 2013). According to the PIACC results, those with lower literacy rates are twice as likely to be unemployed (OECD, 2013). While those who score high levels in literacy, meaning they can infer and evaluate the nuances of claims and arguments, make 60% more per hour than those who cannot (OECD, 2013).

Willms (2003) converged socioeconomic gradient and the International Adult Literacy Survey (IALS) data (a survey fielded in 20 countries between 1994 and 1998). The socioeconomic gradient is used to show the relationship between socioeconomic status and social outcomes (Willms, 2003). He found a negative gradient for the United States regarding literacy proficiency and status. The negative gradient was found in prose (-0.29), document literacy (-0.10), and quantitative literacy (-0.36) (Willms, 2003). This demonstrates that for households with parents who have higher levels of education and often higher incomes, children have higher rates of literacy in comparison to those students who live in households where parents have no high school or college experience. Willms (2003) also discovered a negative gradient between African-Americans and whites (-0.67 to -0.93) and between Latinx and whites (-0.22 to -0.63). Not only does the negative gradient show the disparity in literacy between races, it also demonstrates that whites had more households with parents who had attended post-secondary education. Willms (2003) argues that states which are more successful in ensuring higher rates of

literacy for students of color are states which are able to reduce systemic issues of racism and inequity for students of color.

Ross and VanWilligen (1997) also found a positive connection between literacy rates and income. Using data from the Aging, Status, and the Sense of Control Survey (ASCOC) 1995 and the Work, Family and Well-Being Survey (WFW) of 1990, the researchers used multiple regression to look at the five areas of distress in peoples' lives: depression, anxiety, anger, malaise, and physiological pains. The ASCOC survey, administered by phone had 2,592 English only speaking respondents between the ages of 18-95. The WFW surveyed 2,031 respondents over the age of 18 and the sample had an overrepresentation of females to the population at the time (Ross & VanWilligen, 1997). The researchers found that the higher the literacy and educational attainment, the higher the income level, and less distress in life was noted.

In 2002, the Census Bureau conducted the Survey of Public Participation in the Arts. The survey was conducted by phone with 17,000 participants over the age of 18. Demographic data was weighted to mirror the public at the time. The survey included descriptive trends of adult literacy. Comparing data to two similar surveys conducted in 1982 and 1992, the researcher found that while the population increased by 40 million adults, there was a loss of 20 million readers (Bradshaw, 2004). From 1982-1992 there was a 5% decrease in readers and from 1992-2002 there was a 14% decrease in readers (Bradshaw, 2004). Between 1982 and 2002 the largest decrease in readers was Latinx at 9.9%, followed by whites at 8.4%, and African-American at 5.2% (Bradshaw, 2004). Interestingly enough, Bradshaw (2004) also provides data showing that of those surveyed who earn \$50,000 to \$74,999 per year, 52.3% read literature or prose regularly. 60.8% of those who earn more than \$75,000 per year read regularly (Bradshaw, 2004).

Greater Literacy Correlated to Greater Health

As shared above, Ross and VanWilligen (1997) used data from the two surveys, the ASCOC and the WFW, to discover if there was a relation between health and education. When depression and anxiety were regressed on education attainment, the metric coefficients and standard error showed -0.007 (.025) for those with post-secondary education and -0.128 (.024) for those with no high school completion (Ross & VanWilligen, 1997). The data demonstrate that those who have higher educational attainment suffer less from depression and anxiety. The authors claim that education benefits women more and that education benefits all races equally in regards to health; however, the data tables provided only provide data for males and whites.

Willms (2003) using socioeconomic gradients also demonstrates that higher literacy in families leads to healthier lifestyles most like due to access to healthcare. The OECD (2013) supports the claims of greater health for those with higher proficiency in literacy; however, the OECD also suggests these claims are complex for a variety of reasons. First, those with greater literacy may have occupations which expose them to fewer physical risks (OECD, 2013). Second, navigating the health care system requires a certain level of literacy proficiency and the ability to process large amounts of healthcare-related information, which may prove challenging for those who do not have the needed proficiency levels (OECD, 2013). The OECD (2013) reports that “adults who score at or below Level 1 on the literacy scale have over two times the odds of reporting fair to poor health than those who score at Level 4 or 5” (p. 24).

Greater Literacy Correlates to Liberation

Literacy can allow for liberation and the ability to involve oneself in the community. Incarcerated adults have lower proficiency rates than non-incarcerated adults

(NEA, 2007). Even when education of the family and socioeconomic status are accounted for, 3% of incarcerated adults are proficient while 13% of non-incarcerated adults of the same demographics are proficient (NEA, 2007). Adults with higher rates of literacy are more like to vote, volunteer, attend museums, go to plays, and spend time outdoors (NEA, 2007; OECD, 2013). The NEA (2007) found that 30% of highly literate citizens report participating with the arts through attending musicals, jazz concerts, and other performing arts. Forty-nine percent of highly literate adults reported volunteering in their local communities compared to 16.6% of non-readers who volunteer (NEA, 2007). Acts of civic engagement such as volunteer work are “acts of empathy” (NEA, 2007, p. 90) which Wolf (2018) claims is directly related to literacy and reading through the ability to perception shift (this will be further explained in the next section).

An important aspect of civic engagement is voting. In the 2000 elections, 84% of proficient readers voted while only 53% of below proficient readers voted (NEA, 2007). This could be related to the lack of trust in others and the system and the perceived lack of control in life as reported by non-proficient readers (OECD, 2013; Ross & VanWilligen, 1997).

Best Practices in Literacy

In Spring 2004, a panel of five renowned educational researchers met with the Carnegie Corporation of New York to create a set of recommendations for how to best support literacy for the immediate dire reading situation in secondary education and to set a path into the future of literacy education. At that time, literacy initiatives focused on kindergarten through third grade with the Reading First initiative, sponsored by NCLB. The group introduced 15 elements of effective literacy programs (Reading Next) based upon literacy research available at the time. Four years prior, the NEA created a taskforce

focused on reading. The panel included teachers and reading specialists. The NEA group created a list of recommendations for literacy programs based on the experience and knowledge of expert teachers. While the taskforce recommendations were published and shared widely, the document did not hold the same weight as the Reading Next document as the Carnegie Foundation was able to mass produce, distribute, and advertise their recommendations. Linking their document to research, the Carnegie Foundation was able to attract policy makers and further funding sources. Interestingly enough, both sets of recommendations include similar recommendations, and both highly suggest that a major goal of literacy programs should include engaging all students and building a positive attitude through connecting literature to the lives of students. The Reading Next (2004) document and NEA Task Force (2000) document has been merged using Au's (2004) guiding principles for effective multicultural literacy programs, a research document used by Reading Next (2004) panel of educational researchers within their own recommendations. Au's principles for effective multicultural literacy align to the work of Muhammad's (2020) Historically Culturally Responsive Literacy framework. Therefore, this section is organized into the following: collaborative literacy learning, creating a positive attitude toward literacy, assessing literacy learning, and quality time with literacy.

Collaborative Literacy Learning

Collaboration is the act of working together to define our democracy as "...democracy is built on an awareness of how the individual being interacts with others" (Bomer & Bomer, 2001, p. 102). Small group work in which students knit their individual learning together is not collaboration (Bomer & Bomer, 2001). Rather, this is cooperative grouping which is based upon teacher implemented structures with a focus

on rewards for group behaviors and work completion (Wood et al., 1997). Collaborative literacy learning focuses on the creation of personal understanding via group discourse (Wood et al., 1997) and occurs when said individuals are transformed by the collective work of the group or when all students are changing their viewpoints about the topic of discussion (Bomer & Bomer, 2001).

Collaborative literacy learning supports greater literacy growth. In a review of 18 students, Puzio and Colby (2013), found that when collaborative groupings are used in the literacy classroom, 94% of students show gains on literacy assessments. However, while teachers report high instances of collaborative learning, the research shows that teachers implement collaborative learning approximately 35% of the time (Puzio & Colby, 2013) and place emphasis on individual literacy skills. Secondary English Language Arts classes should forego direct instruction of foundational literacy skills and emphasize comprehension skills which support the ability to infer, analyze, and synthesize (Wolf, Lawrence & Snow, 2001; Rosenshine & Meister, 1994; Rosenshine, Meister, & Chapman, 1996; & Muhammed, 2020). Research shows that students who have early practice and instruction in oral discourse, have greater reading comprehension as the vocabulary gained during discourse practice becomes applied knowledge in the reading process (Lawrence & Snow, 2001; Ninio & Snow, 1999). Discourse in this situation is defined as oral production focused on a topic or activity which includes “grammar, vocabulary, and pragmatic skills” (Lawrence & Snow, 2001, p. 323) and is both considered a learning outcome and learning context enriched through reading (Lawrence & Snow, 2001).

Two forms of collaborative instruction that support both initial direct instruction of oral discourse and comprehension are Reciprocal Teaching (RT) and Questioning the

Author (QtA). RT is a form of collaborative literacy practice that shows great results in literacy growth. RT places an emphasis on comprehension discussion while allowing for decoding practices to occur and diverse voices to be heard; therefore, supporting student agency (Palinscar & Herrenkohl, 2012). Reciprocal Teaching is the practice of “four comprehension strategies: generating questions, summarizing, attempting to clarify word meaning or confusing text, and predicting” (Rosenshine & Meister, 1994, p. 480) in the context of oral discourse between teacher and students and eventually between students with teacher guidance (Rosenshine & Meister, 1994). In a review of 16 studies that used quantitative methodologies, Rosenshine & Meister (1994) found a .32 effect size on standardized tests and a .88 effect size on experimenter developed comprehension tests. A .32 effect size corresponds to the 62nd percentile and the .88 effect size corresponds to the 82nd percentile (Rosenshine & Meister, 1994). In a separate review of quantitative students tests the effect of direct teaching question generation, one step in the process of Reciprocal Teaching, Rosenshine, Meister, and Chapman (1996) found similar results.

Using 26 studies, Rosenshine, Meister, and Chapman (1996) found an effect size of .36 (64th percentile) on standardized reading assessment and a .86 effect size on experimenter developed assessments. Four types of question generating practices were assessed: generic question stems using who, what, when, where, why, and how; main idea prompts; question type classification; and story grammar categories. The teaching of main idea question stems shows a .70 effect size on standardized tests and a .25 effect size on experimenter developed tests while generic question stems demonstrated a .36 effect size on standardized assessments and .85 effect size on experimenter developed tests (Rosenshine, Meister, & Chapman, 1996). Story grammar stems were not used with

standardized assessment; however, when used with experimenter developed tests a 1.08 effect size was found (Rosenshine, Meister, & Chapman, 1996).

Rosenshine and Meister (1994) and Rosenshine, Meister, and Chapman (1996) discuss why there may be a discrepancy of effect sizes between standardized assessments and experimenter-developed tests. The standardized reading comprehension tests used in the studies was the Gates-MacGintie test. The reading passages from Gates-MacGintie are 44-144 words in length and are both from expository and narrative passages followed by two to four multiple-choice questions (Rosenshine & Meister, 1994). In comparison, passages from the experimenter-developed comprehension tests were 200-900 words per passages taken from both expository and narrative literature followed by eight to ten short answer and multiple-choice questions (Rosenshine & Meister, 1994). The longer passages supported offering greater context, whereas the Gates-MacGintie test often lacked the structure of topic sentences followed by an explanation and/or evidence, forcing students to have greater conceptual and conceptual knowledge of previously unread and unknown passages (Rosenshine & Meister, 1994).

Similar to Reciprocal Teaching, Questioning the Author (QtA) is a practice that supports students in focusing on comprehension through listening to how teachers model textual discourse (Lawrence & Snow, 2001). The difference is that teachers provide a space in which students can converse with an author or text through seeing authors as fallible while simultaneously bringing their own knowledge, experience, and biases to the text (Lawrence & Snow, 2001). QtA focuses on queries rather than traditional discussion in the classroom which often follows the IRE patterns in search of teacher-driven correct answers (Beck, McKeown, Hamilton, & Kucan, 2006). QtA has shown that students can

move from basic retrieval of information to having students lead conversations situated around context and evidence (Beck et al 1996; Lawrence & Snow, 2001).

While the evidence demonstrates a positive correlation between oral discourse practices in relation to comprehension, two major observational studies of 1,412 students in 64 secondary classrooms across 19 schools found on average, 2 minutes per 60-minute class periods were spent in open discussion for lower tracked students (Lawrence & Snow, 2001). As Gee (2001) notes, school discourse practices are socially and historically constructed to work for those in power and whose backgrounds and experiences are valued. Meaning that discourse practices are related to each students' identities and the beliefs of those identities, as held by the dominant culture, and determines who gets to talk and how students are able to negotiate understandings within their groups (Lee & Smagorinsky, 2000). This negotiation leads to some groups learning and comprehending at different levels as the *subversive discourse* (dominant culture mandating discourse norms and interactions within a group) develops into a rebellion against the non-dominant students in the group or the topic of discussion (Lee & Smagorinsky, 2000; Palinscar & Herrenkohl, 2012). This can happen in even the most democratic of classrooms if the teacher is not aware of the identities and cultures of the students in the classroom. Moll (1992) argues that not all cultural knowledge and experiences of students are valued in school, which often leads to some students being invited into courses where discourse is practiced, and others being placed in courses without oral discourse practice (Lawrence & Snow, 2001). This would lead to some students being placed in classrooms where the goals of literacy would be retrieval of information for teacher correct answers and other students being placed in classrooms where the teacher models textual discourse patterns for greater literacy knowledge. While

placement in such courses that support individual teaching or tutoring of specific literacy skills such as decoding and word knowledge demonstrate individual growth on high stakes assessments (Penney, 2002), students in these courses are often not on track to enter a 4-year university or community college without some form of intervention.

Creating a Positive Attitude Towards Literacy Learning

The NEA Task Force (2007) posits that literacy programs for secondary schools focus on building positive attitudes towards literacy. Rueda (2011) shares that developing a positive attitude toward reading is more challenging for diverse students if the pedagogy and curriculum are not inviting of various cultural practices and norms. Both Reading Next (2004) and the NEA Task Force (2007) recommend literacy program elements to support building a positive attitude towards literacy based upon Rueda's (2011) argument. The elements include offering diverse texts, building on cultural and linguistic diversity, and connecting to community and organizations. Au (2004) noting the connection between property and literacy provided seven policy supports for literacy programs which combines the multicultural perspectives of Reading Next, The NEA Task Force, and Rueda's (2011) recommendations.

Principals #1, 6, and 7: Provide Authentic Literacy Activities, and Instruction, and Bias-Free Assessments. The current trend in secondary English Language Arts classrooms is to focus on skills (Banks, 2003; Muhammad, 2020). Literacy, with the advent of monitored high-stakes assessments, has been redefined as a basic set of skills (Banks, 2003). Through high stakes assessments students are then sorted into literacy courses with many students of color and English Language Learners being tracked into low-level courses which focus on low-level skills (Au, 2004). Students who are tracked into low level literacy courses miss out on deeper conversations and

authentic community-building around literacy as they focus solely on independent skills (Au, 2004). Hunsberger (2007) notes that the constant attention to skills has focused teachers on teaching to the test; thereby, losing the connectedness in literature learning. Delpit (1995) states there is no lack of need of skilled minority people who lack criticality and analytic abilities in order to function as the low level cogs in the machine of the dominant society.

Literacy is more than a set of independent skills which can be assessed. Literacy is the action of reflection (Banks, 2003), connectedness (Hunsberger, 2007), and liberation (Banks, 2003; Freire, 1970). Banks (2003) interprets Freire (1970) as teachers need to teach *the word* as basic skills as well as *the world*, critically paired hopeful action. Hunsberger (2007) agrees and shared that when coupled, reading the word and the world is being able to “decipher, more and more critically, the obstacles in the personal and social lives that may be viewed as barriers to overcome” (p. 421). This is not a skill to be measured, rather it is a tool for liberation and connecting to the larger world, which skills based only education does not allow for.

More often than not, literacy assessments measure discreet skills as reading rather than connecting and using complex literacy abilities (Gutierrez, 2001). Such forms of assessment are inauthentic as they focus on individual learning and fail to connect to the artifacts, contexts, and resources used by readers thereby negating the idea that learning and literacy are social practices (Moll, 2000).

Principal #2: Recognize Importance of Home Language and Promote Biliteracy. In order to promote a positive attitude towards literacy in American high schools, teachers and schools should become ethnosensitive and build upon the culture and language of home (Au, 2004). As noted above, the reductive practice of teaching

literacy and language arts as skills to be assessed, disconnects students and families from teacher and schools; therefore, impacting literacy attainment in the second language (Gutierrez, 2001). Such practices are supported by English-only policies (Gutierrez, 2001), much like Race to the Top which calls for assimilation. However, families and students have the right to decide if they want to be bilingual/cultural, multilingual/cultural, or monolingual/cultural (International Reading Association, 2001). Yet, much of the policy and legislation, such as the Race to the Top grant, is attached to funding which schools with high numbers of English Language Learners attend and the schools need. In addition, schools with higher numbers of linguistically and culturally diverse students also have higher numbers of uncredentialed or trained teachers (Gutierrez, 2001). The combination of English-only policies and uncredentialed teachers with no understanding of multicultural education or empowering pedagogies, creates a space in which students are often punished for speaking African American vernaculars, Spanglish, and other dialects or languages (Gutierrez, 2001). It has also been found that such school sites rely heavily upon pre-packaged curriculum which offer no room for connecting to primary languages (Gutierrez, 2001).

While legislation and policy call for assimilation and growth on high stakes assessments, the International Reading Association (IRA) recommends the opposite if we want literate citizens. The IRA contends that second language learning connects the strengths of the home language and community to the school where teachers can build upon those strengths. Best literacy teaching practices set teaching and learning in the experiences and knowledge of the home and community as this builds respect and honor for families, communities, and traditions (IRA, 2001). The IRA recommends that

teachers become familiar with the language and language issues of the students (IRA, 2001). Extensive research shows that connections and use of primary language in school supports English language reading and test performance (Garcia & Beltran, 2005). Simultaneously, research demonstrates that when barriers to full familial and community connections exist in schools and classrooms, familial and community support for the learning environment also diminish literacy gains for students learning English (Garcia & Beltran, 2005).

Principal #3: Increase Diverse Texts. Text diversity refers to text level, text types, and multicultural texts. Diverse texts are a controversial topic as the research does not always align to the mandates, current pedagogical practices, or curriculum packages purchased by schools and districts.

One major conflict in the text level debate is the fear that students in upper grades who do not read at grade level and are never exposed to grade level materials may not gain vocabulary nor complex sentence structures needed for comprehension (Carver & Leibert, 1995). Using an experimental design, O’Conner et al (2002) set out to determine if reading level or grade level texts in one-on-one reading instruction supported reading improvement. Of the 46 participants who qualified as reading below grade level at the site, 32 were boys, 14 were girls, 20 were African-American, 26 European American, and 14 of these students has been retained at least 1 year in school (O’Conner et al., 2002). Half of the group received one-on-one reading instruction with grade level reading materials and the other half received instruction with reading level texts. Findings indicate that both groups made reading gains in comparison as compared to their classmates who focused on grade level materials in whole group and small group instruction (O’Conner et al., 2002). Students who had lower fluency rates at the

beginning of the study made greater gains with reading level materials than grade level materials and there were no differences in growth rates for race or gender (O'Conner et al., 2002). The findings suggest that individual direct instruction of reading skill supports growth, which is often challenging in classrooms with only one teacher. Yet, it should not support pull-out programs in which students miss out on greater classroom literacy connectedness (Hunsberger, 2007). However, the text level used to instruct is not as important as first thought. Meaning that if the level of additional reading or personal reading has no negative consequence on reading growth, then students should be able to select readings they are able to read.

Selecting personal reading is often a challenge for many students as teachers and school librarians often act as gate-keepers of reading choice (Worthy, Mormman, & Turner, 1999). While students may not be allowed to read texts at their level, they often are unable to select the type of text they would prefer to read. In a survey of 614 students, 13 teachers, and 3 librarians, Worthy, Mormman, and Turner (1999) found that students reading preferences are not necessarily found in classroom or school libraries as librarians are encouraged to spend funds on reference, informational, and tech materials rather than current popular fiction. According to the survey, students prefer horror genres and authors like Stephen King and informational texts are last on the list of preferences. Additionally, 100% of low-SES students who completed the survey reported borrowing books from the school library as their only source of personal reading materials whereas 64% of the mid to high-SES students reported purchasing their personal reading books (Worthy, Mormman, & Turner, 1999). Librarians also reported that student were less likely to select award-winning books (Worthy, Mormman, & Turner, 1999).

The National Book Award (NBA) for young People's Literature is a resource used by many school librarians; however, it is flawed in its selection of texts representing diverse populations and student interests. Bickmore, Yungying, and Infante-Sheridan (2017) analyzed 100 NBA winners and finalists from 1996-2015 by categories authors' genders, race/ethnicity, protagonist gender, protagonist race/ethnicity, protagonist SES, the setting, and genre. Of the 100 texts analyzed, 77 were written by white authors and 23 by non-white authors. Of the 20 winning titles in that time, 15 were written by white authors and five by non-white authors. While 77 texts were written by white authors, only 46 texts included white protagonists. Of the 12 about Black youth, six were written by white authors and six by cultural outsiders. The one book featuring a male Mexican protagonist was written by a white female: Nancy Farmer's *The House of the Scorpion*. Nancy Farmer's other nominated title was about a Black girl in *A Girl Named Disaster*. Only 23 books were deemed culturally relevant or "Books written about a culture by a cultural insider" (Bickmore et al., 2017, p. 49). This is problematic in that the representation and stories are not authentic to the youth while often reinforcing the popular knowledge held within a society (Bickmore et al., 2017). Such representations are not always positive depictions of a people that become institutionalized in literacy and media (Banks, 1993). Banks (1993) asserts that we need to include readings from a wide array of authors as images of BIPOC as written by the dominant culture are more accepted by book publishers, reinforced by the teachers, and held by the students. It does matter that the hegemonic images of a culture hold those students in trauma (Banks, 1993).

In a study of 166 elementary at-risk literacy students of which 72 were Black, 62 white, 23 Asian, and 9 Hispanic, Morrow (1992) found that when reading instruction

included more literature from diverse authors about diverse protagonists, rather than focusing on informational texts, reading ability and enjoyment improved. Students in the experimental group made significant growth in reading demonstrating a full standard deviation in growth, whereas students in the control group who received traditional reading texts showed a decrease in growth. The students in the experimental group made growth no matter race/ethnicity, whereas only white students in the control group showed growth (Morrow, 1992). This demonstrates that when tests are culturally responsive, all students grow. When students do not see themselves in the literature or the literature is lacking their lived experiences, students become resistant to school and act out or refuse to interact with the literature (Hunsberger, 2007).

Principals #4 and 5: Promote Cultural Responsiveness and Make Stronger Links to Community. Culturally responsive literacy practices recognize the difference between home culture and school culture and use the strengths of the home culture to teach school culture thereby increasing literacy learning (Prochnow et al., 2015). Knowing the cultural experiences of students and the community allows teachers to select culturally responsive literature to support bridging students' backgrounds and new schemas in literature which leads to greater comprehension (Au, 2004; Banks, 1993; Gutierrez, 2001; Ladson-Billings, 2014; Prochnow et al., 2015; Ruenda, 2011). Banks (1993) contends that this bridging of cultures through literacy allows students to be freed by the cultural and ethnic boundaries which leads to spaces of empathy. Wolf (2018) agrees as neuroscience demonstrates that reading a variety of voices allows for perspective shifting which supports greater empathy connections in the brain.

Cultural responsiveness requires that literacy teachers hold an asset lens of their students and their abilities (Au, 2004; Ladson-Billings, 2014). However, at this time there

is little language of academic excellence regarding African American and Latinx students (Ladson-Billings, 2014). Maintaining a negative discourse of culturally and ethnically diverse students leads to negative consequences such as the Matthew Effect (Prochnow et al., 2015; Wolf, 2018). The Matthew Effect is when rich readers get stronger and poor readers get poorer. Culturally responsive literacy practices support inclusion of all voices; thereby, increasing literacy for all.

In order to practice cultural responsiveness and select diverse texts, teachers and schools need to have greater connections to the communities they serve as these communities are connected to the students' identities. Community connections between home and school are important as they build trusting relationships which allow for sharing of resources, tools, and valuable knowledge (Moll, 2000). These historical, cultural, and social resources which define a person's self-understanding are referred to as Funds of Knowledge (Esteban-Guitart & Moll, 2014). Funds of knowledge become Funds of identity when they are used by students (Esteban-Guitart & Moll, 2014). When students have a negative experience regarding their community in school, students will disassociate from school as a form of power and identity ownership (Esteban-Guitart & Moll, 2014; Hunsberger, 2007).

Assessing Literacy

Literacy is a social and cultural process (Moll, 2000), which affects and is affected by concepts of self-development, personality, identity, and human development (Smagorinsky, 2009). Assessment of literacy, both formative and summative, often negates these aspects of reading and focuses on discrete skill attainments which leads to a gap mentality in which students are compared the haves and have notes along racial and SES lines. Muhammad (2020), states that Black students are not failing as it is the

systems, pedagogical practices, and curriculum leaders who have narrowed the definition of achievement which creates a gap mentality. The gap mentality places blame upon the students for not scoring high enough or working hard enough. Bomer's (2001) work, a precursor to Muhammad's idea of the gap mentality, shares that such deficit views in which blame is placed upon students, also places blame on teachers as well which creates tension between the two parties in the classroom. Whitehead (2007) argues that standardized literacy assessments purposely create the tension between students and teachers by telling society which a students need to learn and work harder, as well as what teachers need to teach need to be held accountable for in the classroom. Additionally, these assessments are marketed to the public via the media as valid measures of literacy performance (Whitehead, 2007). These beliefs trickle down to the classroom where teachers create both formative and summative assessments to align to the standardized assessments mandated by the government. Most teacher created assessments typically assess which students retained transmitted knowledge; thereby, adding to the gap mentality as there is no space for reflecting on how content was taught or whether students could use that they had gained (Whitehead, 2007). The teacher created assessments aligned to standardized assessments also fail to acknowledge literacy and languages practices multi-lingual students possess (Gutierrez, 2001).

Much assessment of reading focuses on correctly answering multiple choice questions which defines comprehension as a set of discrete skills and transactions and does not align with the complex process of comprehension (Smagorinsky, 2009).

Literacy is then designed as a set of transferable skills that can be isolated becoming mechanistic functions in which teaching is simply part of a larger machine and teacher and student agency do not exist (Foucault, 1995; Smagorinsky, 2009). However, literacy,

especially reading comprehension is connected to social and cultural artifacts, contexts, and community resources (Moll, 2000). Comprehension is a process in which students attend to reading with a schema upon which they place more information (Marcotte & Hintze, 2009). Bomer and Bomer (2001) suggest that this comprehension process is steeped in collective societal knowledge, yet assessment practices deny this knowledge to maintain a specific dominant social culture.

To avoid a gap mentality narrative and to acknowledge literacy processes, assessment should align to culturally responsive (Muhammad, 2020) and co-constructed forms of pedagogy (Whitehead, 2007). Muhammad's (2020) Historically Culturally Responsive Literacy framework focuses on assessing: identity and how students learn about themselves and others via reflective processes; skills and how the curriculum and tests build upon what students already are able to do; intellect and how the curriculum builds upon prior and current knowledge; and criticality and how students are engaging in literacy via questioning issues of power alongside the disruption of oppression. Bomer (2011) shares that culturally responsive formative assessment is more than simply checking for understanding as it is about listening to students and connecting to their personal stories to better design curriculum. This form of *investigative assessment* (Bomer, 2001, p. 21) bridges relationships, values, histories, cultures, languages, and passion to curriculum. This maintains an asset lens of assessment as the focus is on what students have rather than what they do not have (Bomer, 2011). Connecting reading to the self supports learning transitions, contributes to identity development, provides cognitive and emotional templates for interpreting the world, and provides another means to access content within the the brain as well as supports higher order thinking such as synthesis (Freire, 1970; Muhammad, 2020; Smagorinsky, 2009; Wolf, 2018).

Quality Time with Literacy

For reading to happen to happen, “sonic-speed automaticity” (p. 19) between the vision, language, cognition, motor functions, and affective functions regions in the brain occurs (Wolf, 2018). These regions crossover the frontal lobe, temporal lobe, and occipital lobe across both hemispheres of the brain (Wolf, 2018). Wolf (2018) notes that it is only through repeated exposures across time to reach the needed sonic-speeds to occur in the brain, leading current neuroscience researchers to note that reading, a learned social and cultural process, is also a long developmental process. While expert readers can process text at breakneck speeds it is the quality of time spent reading to interpret and connect our experiences, background knowledge, beliefs, and more to the sentences and passage we read (Wolf, 2018). The deeper form of reading which allows for identity growth and transformation via perspective shifting and empathy building (Wolf, 2018) requires allocating time across ages as readings move through gaining reading abilities to maintaining reading abilities.

Time for quality literacy practice to occur is an equity issue. Students tracked into low level English classes do not spend the same amount of time reading and engaging with texts for meaning as higher level English classes such as Honors or Advanced Placement courses do (Au, 2004; Davis, 1988). Not only is time with text spent differently, lower tracked classes often don’t have the opportunity to engage with self-selected reading materials (Davis, 1988; O’Conner et al., 2002). Locker and Prost (2020) claim that time spent reading in adolescence should focus on critical reading, building expert knowledge, and deep processing strategies rather than decoding. Silent sustained extra curriculum reading is one way to foster such skills.

Using an experimental method in which one high school classroom with mixed ability readers continued to receive teacher directed reading instruction and the other class with a similar reading demographic received silent reading time with self-selected texts, Davis (1988) found that the silent reading group improved by 13 percentile points on the Comprehensive Test of Basic Skills. Davis (1988) notes that if we want students to become proficient readers, students need to practice the target behavior: reading silently and for enjoyment. This sentiment is shared by Locher and Prost (2020) who claim silent reading practice leads to stronger reading abilities. The practice of not reading silently, or only focusing on direct instruction for reading practice is called *the vicious cycle of non-reading* or *the virtuous cycle of reading* (Locher & Prost, 2020).

However, as time is an issue in schools, researchers focused on correlating reading time to standardized achievement rather than long term growth claiming the goals should be to make learning efficient. Gettinger (1984), using Carroll's (1963) argument regarding time spent learning, presents the key to maximized learning or efficiency in learning is to look at the time spent on learning in relation to time needed for learning. Using criterion referenced assessments focused on the discrete skills of spelling and comprehension, Gettinger (1984) found that the time needed for learning is as important as the time spent learning. Suggesting that high ability readers do not need to spend as much time practicing reading as low ability students. However, Gettinger (1984) fails to account for the increasingly complex texts students will encounter in higher grades, various types of texts people encounter outside of school such as contracts, life-long reading practices needed for continued success in life, and engaging with reading for purposes of identity growth and transformation or even for discourse purposes. As Foucault (1995) would offer, the goal of efficiency is to create a situation in which a

system is able to monitor and control what is completed, not to allow deep learning and connection-making which may lead to disruptive actions.

Conclusion

Literacy-learning is complex. This literature review has only offered best practices regarding reading and not the full gamut of possibility for listening, speaking, and writing. The literature has also presented a tension between time spent in school, how learning is monitored, what learning is monitored, and the desire to build positive attitudes about reading. Positive attitudes about reading support engagement with reading. If students, especially students who are often marginalized in education, are not offered the chance to build a positive relationship with reading, they have a lesser chance of becoming a highly literate adult. As noted in the literature review, literacy is connected to income, jobs, healthy lifestyle, and civic participation. By not supporting marginalized students, we allow a cyclical system of inequity in which some people are afforded power and others are afforded oppression. With the potential issues of hegemony, epistemology, and pedagogy presented with PL Tech, can students have a literacy learning experience which supports lifelong literacy benefits?

CHAPTER THREE

RESEARCH METHODOLOGY

The purpose of this study was to explore the lived experiences of students participating in personalized learning technology environments to better understand what structural and cultural arrangements influence their literacy learning. Since the research questions for this study explore human experience, a qualitative approach was determined to be best suited for this inquiry (Merriam, 2009). More specifically, a narrative portraiture research design guided the methods and end product. Portraiture seeks to document the wisdom, voices, and visions of the participants through stories, which “shape lives, pedagogy, and institutions” (Lawrence-Lightfoot & Hoffmann Davis, 1997, p. 36). Currently, personalized learning technology is implemented at school sites and in communities where many students are in the most need of responsive pedagogical instructional supports and are highly vulnerable to biases from both the public and researchers due to deficit lens research-based designs leading to racial fatigue and symbolic academic violence (Johnson, 2018). The media portrays a one-sided view of youth in these schools. While poor test scores on standardized exams are broadcast openly, the ways in which students’ voices and experiences are disregarded in the pedagogy and curriculum is ignored (Benjamin, 2019; Johnson, 2018). This chapter will detail portraiture methodology as a way to lift student voices, describe the context and participants, explain the data collection and analysis process, and provide insight into the ethical concerns of working with students in marginalized communities.

Portraiture Methodology

Portraiture stems from phenomenology and ethnography. Creswell (2013) shared that phenomenological research seeks to understand lived experiences and ethnography works to describe and interpret the culture shared by groups. Portraiture merges the goals of understanding lived experiences while including the process of interpretative description. A critical difference between portraiture and phenomenology is the stance of the researcher. Rather than work to remove the bias of the researcher, within portraiture, the researcher brings forth her biases, assumptions, and beliefs within the narrative (Lawrence-Lightfoot & Hoffmann Davis, 1997). Another defining difference is the goal to move research beyond the academy. Portraiture focuses on sharing research with a broader audience to allow the community to think more deeply about social issues, see themselves within those issues, and lead to social transformation (Lawrence-Lightfoot & Hoffmann Davis, 1997). This methodology aligns with the goals of the researcher as the stories of the participants are shared in a way that highlights students while allowing for students, teachers, and community members to better understand their educational decisions and their ability to be active within those decisions. In other words, the research became a negotiated praxis between the researcher and participants, which leads to emancipatory knowledge (Brinkmann & Kvale, 2015; Lather, 1986).

As a research design, portraiture focuses on the authenticity of voice and the sharing of human experience rather than the neo-positivist criteria of reliability and validity (Lawrence-Lightfoot & Hoffmann Davis, 1997). To have an in-depth understanding of each, context is critical. One of the first steps in data gathering for portraiture is to use the outsider's eye to depict the rich details of historical, social, cultural, and physical contexts. The personal context of both researcher and participants

(which is iteratively negotiated through the experience of the researcher as she moves in and out of the outsider/insider role) sets the ability to provide the authentic experience for the reader. Through detailing the context, interpretation is used to illustrate the culture. Geertz (1973) shares that to recreate culture for readers and others, a researcher must use both imagination and interpretation to depict “thick description.” This is the heart of portraiture: the merging of aesthetics and science.

Beyond context, portraiture requires: building relationships with participants; identifying and documenting perspectives of all actors involved in the phenomenon; active listening for stories that are told through body language, language, voice-centered analysis, and metaphors; co-construction of knowledge between participants and researcher; listening for the deviant voice; and maintaining impressionistic records or analytic memos (Lawrence-Lightfoot & Hoffmann Davis, 1997). Such actions lend themselves well to qualitative methods.

Site of the Research

The site where this study will take place is considered an extreme case (Glesne, 2016; Patton, 2002) as the site uses PL Tech to deliver all content to students. PL Tech Academy, a charter school situated in Fresno, California, offers K-8 educational opportunities. Based upon school psychologist recommendations, administrators recently decided to only implement PL Tech in Grades 6 – 8 rather than Grades 4 – 8 as had been done in the 2018-2019 school year. However, with COVID-19, the school implemented PL Tech for Grades 4 – 8 for the 2020-2021 school year. PL Tech Academy uses Summit Learning for all core courses: ELA, math, science, and social studies. Electives for middle school include reading and math support and 30 minutes of homeroom leadership

learning based upon Covey's *The Leader in Me*. Prior to COVID-19, students were required to be present at the site for 6 hours of the day and engaged with technology for 80-90% of class time. Middle school courses are run on a block schedule in which students also receive two to three days of physical education instruction. The site has a zero-tolerance policy for dress code and uniforms as well as absences shared in both the parent and student handbooks. If three unexcused absences occur, a student is considered truant and the school attendance review board (SARB) process begins. There are four middle school teachers—one for each core content area mentioned above. The site also has a reading specialist, a special education instructor, a part-time school psychologist, and a security officer who is allowed to open carry his gun on campus.

Historical, Social, and Cultural Context

As portraiture methodology requires an in-depth understanding of context, this section will provide details about the historical, social, and cultural contexts of PL Tech Academy.

Three highways (the 99, 41, and 180/168) shape Fresno into a wagon wheel with the downtown area acting as the hub. PL Tech Academy sits between highway 99 and highway 41. In this section of Fresno, housing costs follow a gradient of wealthy to poor by the division of major intersections. While there are a few neighborhoods with historical wealth that do not follow the trend, such as VanNess, where CSU Fresno State's president resides, and a small pocket in the Tower District near City College, the wealth gradient diminishes the closer one nears a highway. Shaw Avenue runs East and West. The homes on the north side of Shaw run on average \$50,000 to \$1,000,000 or more. South of Shaw, homes sit on larger parcels of land, one quarter to one-acre lots

sizes, then quickly begin to transition to smaller lots with pockets of apartment complexes.

PL Tech Academy sits south of Shaw on a corner of a major street across from a Fresno Unified School District elementary school and an apartment complex surrounded by an eight-foot iron fence. Students who attend PL Tech Academy come from all over Fresno, but mainly from the local neighborhood. All eight of my aunts and uncles and my mother attended the elementary school across from PL Tech Academy and then the junior high school a block further south. In the 1940s and 1950s, the Fresno Unified Elementary School was surrounded by cotton fields. The land on which PL Tech Academy sits was once a cotton farm where the elementary kids would go after school and pay a nickel to ride hogs before going home. As the Central Valley transitioned from cotton farming, the land was sold, and a church was built. The church had six main buildings and an acre of field: the chapel with connecting offices and connecting classrooms, a cafeteria and lounge, a C-shaped building housing six large classrooms, a gym, and two other buildings for classrooms and storage. Since that time, PL Tech Academy has added three portable buildings, diminishing the parking lot, and encased the school grounds in chain link fence. PL Tech Academy has one other site in Fresno and is hoping to open a third for high school.

Upon entering the office, visitors and children are greeted with a sense of ownership as there are two glass cases displaying student artwork, which upon closer inspection are over 2 years old. There is a television screen perched high on the wall which scrolls through pictures of outdoor activities and award ceremonies from the previous 2 years along with the 8Cs of learning based on Covey's *The Leader in Me*. All

paperwork on the counter is printed in both English and Spanish. The Director's office is directly to the right and the principal's office is on the left. The principal's office is lined with a bookshelf with duplicates of each text for teachers to check out. The room is also occupied by a large conference table on which sits a stack of books by Ruby Payne. Equity educators have highly criticized Ruby Payne's work as it places blame upon those in poverty upon the victims of poverty. Payne's work negates to explore the various social and cultural reasons for poverty thereby pushing a deficit lens. Her claims about poverty have also been criticized for lacking evidence (Bomer, et. al., 2008). Payne's work suggests that if we teachers, simply teach the right language and mannerisms of the wealthy, kids will be able to rise from poverty. The curriculum director is often found sitting at this table scrolling through real-time data from Summit Learning. The data show what teachers are currently doing in the virtual classroom as well as what each student is completing on the platform. The curriculum director is able to quickly provide a cognitive learning score for each student per content or skill within a content area.

According to the Local Control Accountability Plan (LCAP), the school was started as a "grassroots community effort" to support the high needs students who are defined in LCAP as those in poverty and unstable homes. The goal of the school is to help eliminate hunger, create safe spaces while emphasizing academic achievement, accountability, and leadership. Students who attend the school live with gang violence, domestic violence, substance abuse, divorce, and housing and food instability. To best support the student population, PL Tech Academy has utilized personalized learning technology beginning in the fifth grade, implemented concepts from *The Leader in Me* by Covey, and partnered with Rescue the Children, a Mission that provides service to at-risk

women and children. Additionally, according to LCAP, two major goals for English Learners have been implemented: 1) being parent-focused, and 2) developing a greater sense of multi-cultural awareness and competence. The desire to develop multi-cultural awareness is at odds with the stack of Ruby Payne books which sit on the conference table, and over the course of the 4 months I am at the site, get distributed to the teachers as professional development.

PL tech Academy was opened and authorized as a charter school in 2004 under Fresno Unified School District (FUSD). At that time, FUSD agreed to a 2-year term. This places a financial burden upon the charter school as it has to repay all loans within that 2-year time frame. To cut costs, PL Tech Academy partnered with Summit Learning for grades four through eight. The Summit Learning platform offers free curriculum and teacher training due to its connection to the Zuckerberg Foundation, an LLC that operates as a not-for-profit corporation with pass-through income taxation or a flow-through entity (FTE). FTEs are often considered non-entities and are not taxed as the owners of the LLC are enabled to report the shares and losses (or donations) on their own tax returns. For Summit Learning, donating curriculum and training becomes a tax write off for the owners. To support kindergarten through third-grade students, PL Tech Academy implemented free curriculum from the CORE knowledge Foundation, a non-profit foundation started by E.D. Hirsch Jr. Critical and multicultural theorists highly critique the curriculum, along with E.D. Hirsch Jr.'s body of literacy work as focusing on supporting the idealized American culture, denying diversity and democratic participation in learning (Kaufer, 1989; Kohn, 1999; Provenzo & Apple, 2005). Like Summit Learning, the CORE Knowledge Foundation is also run as an LLC FTE.

At this time, FUSD has denied PL Tech Academy the ability to open and operate a high school. While the Superintendent of FUSD supported opening the new charter, the board members rejected the charter expansion due to the use of personalized learning technology. Two board members argued that personalized learning technology is not sound learning or teaching practice. Despite the lack of support for personalized learning technology at this board meeting, FUSD implemented Summit Learning at one middle school and Cyber High (a Fresno County created and operated personalized learning technology platform) at two of its struggling high schools.

The school's ethnic and racial demographics are misaligned with those of the district and county within which the school resides (see Table 1). The school has an overrepresentation of Black/African American students and Native American students than the district. The school is comprised of 12.9% Black/African American students, 64.6% Latinx, and 14.4% White students (See Table 1). In comparison, Fresno Unified School District (FUSD) is comprised of 8.1% Black/African American students, 61.6% Latinx students, and 9.1% white students; thereby, demonstrating an overrepresentation of both Black/African American and White students. More than half of the students receive free and reduced lunch and 19.9% of the students are considered English Language Learners and compared to 18% in Fresno Unified School District. According to the California State School Dashboard, 86% of the students are chronically absent. African American students, students with disabilities, and social-economically disadvantaged students are considered to be in the danger zone for chronic absenteeism. 6.3% of the African American student population has been suspended at least once whereas 4.3% of English learners (an increase in the last school year by 4.6%), 1.6% of

Hispanic students, and 3% of socioeconomically disadvantaged students have been suspended at least once at the school site. While school documents share a story of improving high stakes assessment scores for students of color, the Smarter Balanced Consortium results highlight a persistent literacy gap (see Table 2).

Table 1

CDE 2018-19 Enrollment by Ethnicity

	Black	Am. Indian	Asian	Filipino	Hispanic /Latino	Pac. Islander	White	2+ Races	Not Reported
PL Tech Academy	12.9%	1.2%	1.7%	0.5%	64%	0.5%	14.4%	4.1%	0.2%
Fresno County	4.8%	0.6%	9.3%	0.8%	65.4%	0.2%	16.5%	2.1%	0.3%

Table 2

CASPP Literacy Progress for 2018-2019

	Black	Am. Indian	Asian	Filipino	Hispanic /Latino	Pac. Islander	White	2+ Races	Not Reported
Exceeded Standards	13.70%	Suppressed due to low number of students	41.67%	Suppressed due to low number of students	10.47%	No data provided	44.44%	Suppressed due to low number of students	No data provided
Met Standards	27.59%		16.67%		28.49%		27.78%		
Nearly Met	37.93%		16.67%		31.98%		13.89%		
Did Not Meet	20.69%		25.00%		29.07%		13.89%		

Participants

Convenience sampling, a means of recruiting participants who are easily accessible within a specific location, was used to select participants for this study (Creswell, 2013). Participants were identified in January 2020 when I presented my research proposal to the Principal and Curriculum Director. Since there is only one English classroom and one English teacher for two seventh and two eighth grade sections of English, it was determined that I could observe and seek student voices in that classroom. While I was allowed to observe the sixth grade English classroom, it was determined by the site directors only to allow interviews of students in the seventh and eighth grades.

After meeting with the teacher and Education Specialist, I was made aware of which students had Individualized Education Plans (IEPs) and while two students with IEPs initially returned signed consent forms, I opted not to include them in the interviews and focus group interviews for ethical purposes. I presented my purpose for being present at the school and the classrooms to the entire seventh and eighth-grade student body: two seventh grade classes and two eighth grade classes. While students were excited to participate and asked questions, only six returned signed consent forms in the following week. As mentioned above, two of the students had IEPs and were not included in the interviews; however, they were observed within the classroom. Two seventh grade students and two eighth grade students returned signed consent forms. Knowing that I would be able to recruit parent participants at the next parent meeting in March 2020, I was not concerned as I expected to be able to recruit a few more students. However,

schools closed in March 2020 due to COVID-19; therefore, I was unable to recruit parents or additional student participants for interviews.

In addition to the four student participants, once other teachers discovered my purpose for being present at the school site, they requested to participate. This included the education specialist, the reading specialist, and the physical education teacher. These interviews were conducted and the analysis included in the findings as a way to better understand the perceptions and relationships of the student experience. The English teacher also agreed to participate in the study. While the curriculum director and principal both agreed to participate in the research and were eager to be interviewed and discuss the school without recording, neither would return signed consent forms. Summit Learning has been reluctant to allow anyone outside of Summit to study or research the platform (Barnum, 2019). Since the PL Tech Academy has a strong relationship with Summit Learning, and the curriculum director has served on data analytics and platform feedback committees for Summit Learning, I sensed that the administration was hesitant to participate in the research as it might have jeopardizes their relationship with Summit Learning.

Data Collection

Portraiture methodology strives for authenticity. Authenticity is similar to trustworthiness described by Lincoln and Guba (1985). Authenticity and trustworthiness require prolonged engagement for observations and interactions, triangulation through the use of multiple sources and perspectives, rich description to understand the context, non-confirming evidence or deviant voices, member checking, peer review, researcher reflection upon bias and positionality within the process, and a document trail (Lawrence-

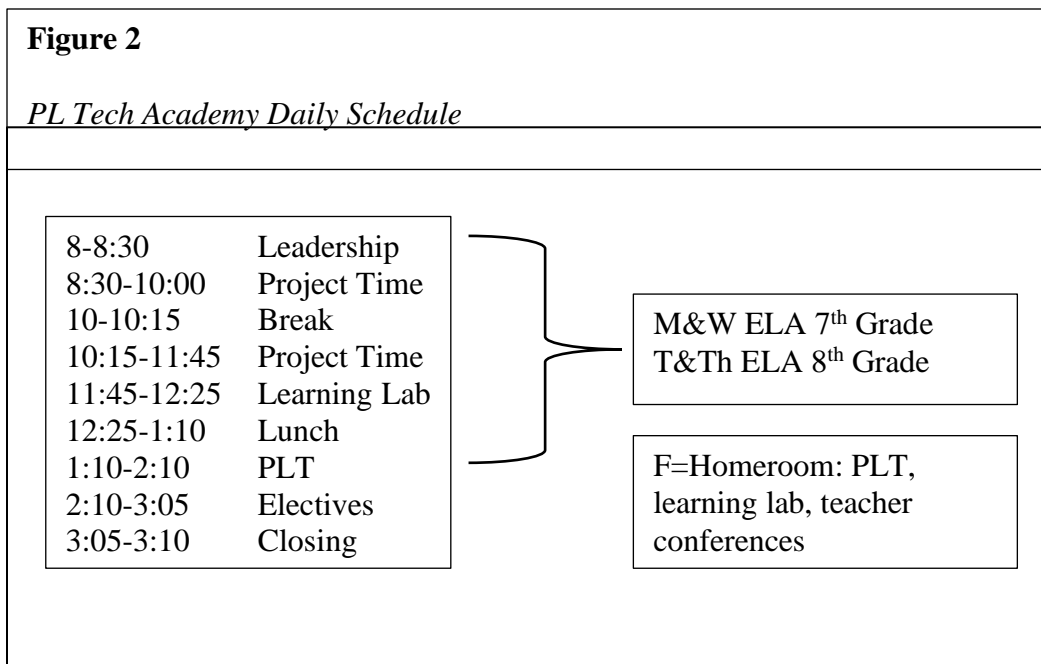
Lightfoot and Hoffman Davies, 1997; Lincoln and Guba, 1985). Portraiture like other qualitative methodologies requires the researcher not only to reflect upon biases and subjectivities, but also to include those biases and subjectivities within the portraits. Through sharing those biases and subjectivities with the audience, the reader may determine how those beliefs affect the narrative presented. For this study, exposure to the site took place over 4 months: November 2019 – February 2020. This time period allowed for me to deeply review the literature and the site, follow its social media presence, and make repeated visits to the community.

Data were gathered via classroom observation, individual and focus group interviews, document analysis, and impressionistic records as detailed below. The data collected are presented in a data collection chart offered in Appendix A.

Observations

Purposeful observations took place within the classroom over 4 months. My observations focused on gathering data for three different contexts: the ecological context, the personal context, and the historical context. While not each visit to the site included purposeful observation of the classroom, the act of noting the reiterative moving between the etic and emic perspective of the researcher is included within the impressionistic records as a way to record the researcher's biases and beliefs for authenticity. Within the practice of narrative portraiture, it is imperative that the researcher be aware of how perspective and a researcher's eye changes with each visit and why it changes. By documenting initial impressions, mid-study observational impressions, and final visit impressions, the researcher can "unfold the journey" experienced to build authenticity for the reader.

Classroom observations focused on gathering data about the interactions between students, interactions between students and instructors, interactions between students and technology, and to compare interview data to observational data. Sites where personalized learning technologies are implemented vary in class arrangement and structure. PL Tech Academy's seventh and eighth-grade students have a unique daily schedule. There are two sections of seventh grade and two sections of eighth grade for all core content areas: ELA, social studies, math, and science. There is one teacher for each core content. Each section of seventh and eighth grade are assigned a homeroom, which is where students start their day (See Figure 2). The ELA classroom is designated as one of the seventh-grade homeroom classrooms. Each Monday and Wednesday, seventh graders attend English and social studies. Each Tuesday and Thursday, eighth-grade students attend English and social studies. On Monday and Wednesday, the ELA teacher begins the day with his seventh-grade group for leadership and project time. Students take a 15-minute break during which they clean up and transfer to history as the second section of seventh-graders transition from history to ELA. The second section of seventh graders remains in ELA from 10:15-12:15, during which they have project time and learning lab before heading to lunch. After lunch, students return to their homeroom for PLT, electives, and closing. Students have P.E. twice per week during elective time. Each Tuesday and Thursday, seventh graders attend P.E., giving the seventh-grade homeroom teachers time to plan. Each Monday and Wednesday, eighth graders attend P.E., giving the eighth-grade homeroom teachers time to plan.



To understand the time delineations of the day for students and teachers, one needs to understand the following terms as defined by the site: leadership, project time, learning lab, PLT, and electives. Leadership time is used for attendance, checking in with students, and reviewing the core habits of the school: be proactive in learning, begin with the end in mind, put schoolwork first and play later, think accomplishments, listen first and then be heard, work as a team, and grow academic skills. Project time is based on Summit Learning's curriculum. For English class, this is reading of a whole class text on the computer with pre-determined activities and a timeline for completion. Learning lab is time for students' use of Lexia Learning's online for either ELA or math practice. Lexia provides skills-based reinforcement with high stakes assessment practice. PLT time is used Summit Learning's skills-based, standards-aligned practice and assessment which places students on deadline for meeting grade-level standards. Elective time is used for P.E. and for a blend of Lexia learning, PLT time, and one on one conferences.

The initial and final observations included full-day observations of both seventh and eighth grade ELA for a total of four observations. Three observations were dedicated to the first section of 7th grade ELA courses with two Mondays and two Wednesdays. Three observations were dedicated to afternoon sessions of seventh grade ELA courses from 10:10 am to 3:05 pm. Four observations were dedicated to the morning sections of eighth grade ELA, and five observations were dedicated to afternoon sessions of eighth grade ELA. This added up to 68 hours of purposeful observation time.

An observation guide for personalized learning technology (See Appendix B) was adapted from Twyman and Redding (2015). This was used to collect observational data in a uniform manner. In addition to the observation guide, an attempt to record dialogue interactions was made to observe the types of dialogue and dialogic processes present and the relationships between the students and teacher to support telling a story about the culture of the classroom. However, due to the physical structure of the building, the recordings were impossible to transcribe, and the dialogue interactions were recorded by hand. The ELA and history classrooms sit on either end of a refurbished gym. The walls are over 20 feet tall and the floor was recently carpeted to support dampening the noise. The classes are divided by movable partition walls that are ten feet tall. Due to the length of the building, a third-class space sits between the ELA and history classes. This space is used as a place for students to complete work outside the class space and for the reading specialist to meet with students. The noise from each class filters into the other in addition to echoes and reverberations of film and audio clips each teacher uses during class. Each teacher often turns the volume on films and audiobooks up an additional two

notches in an attempt to drown out the conversations and noises from the other class. Students often speak louder and at times, yell at others in the other class.

Additionally, gathering observational data about what questioning techniques were used and modeled, when and how students interacted with text, how students and the teacher reacted to text choice and selection, and what types of assignments students completed supported answering what types of literacy skills and knowledge are developed via PL Tech. While I was allowed the opportunity to view the teacher dashboard of completed assignments, I was not able to print or photograph the data. I did sit with students to observe their usage of the platform. These interactions allowed for insight into the forms of knowledge that were privileged within the environment.

Personalized learning technology claims to offer students choice. Therefore, observational data regarding when and students implement choice was gathered via the Observation Guide (see Appendix B). As both Summit Learning and Lexia Learning are used in class, I was able to observe how choice was enacted by students when reading selections were given to them via the platforms. This led to tracking observed acts of resistance as well as agency in the form of translanguageing, or the dynamic way in which multilingual students employed diverse linguistic skills and knowledge between languages and dialects for purposes of communication (Garcia, 2009) with peers and the teacher.

Within the initial observation of the site, the five senses were used to gather data about the physical setting of the school and classroom to gather the rich details required of narrative portraiture. Other ecological observational data were collected, including the geography and demography of the site. Portraiture also focuses on observational skills on

the historical context of an institution to gather data about the social and cultural structures. This led to documenting the institutional culture through actions and words of those on campus as well as the history of the site. This supported seeking the deviant voice, or disconfirming evidence, and being aware of the synchronicity and dissonance of the physical culture to the interior and institutional culture as noted in the impressionistic records.

Scripted observational notes were gathered on a T-chart with the objective notes and tally marks kept on one side and the impressions and beliefs kept on the other. These were used to support writing impressionistic notes after each visit.

Interviews and Focus Groups

Portraiture methodology focuses on building relationships with participants to gain a greater perspective of the lived experience. This requires that the researcher not solely rely upon formal interview structures. To that end, this study incorporated unstructured interviews, semi-structured individual interviews, and semi-structured focus group interviews.

Four middle school students, two in seventh grade and two in eighth grade, were recruited to participate in the individual and focus group interviews. Fifty-six students were asked if they would like to be part of the research and IRB parental consent forms were sent home. Unstructured interviews were used to build relationships and gain an insider view of the phenomenon. This allowed for conversational style to take place on purposeful observation days as well as during the 2-week document analysis period detailed in the next section. Unstructured interviews were initially recorded, but due to sound quality, hand notes were relied upon. Notes were documented in the researcher's

notebook. In addition to notetaking about the conversations, observation skills were employed to track body language and voice quality (Lawrence-Lightfoot and Hoffman Davies, 1997).

Three semi-structured individual interviews were conducted with the four students. The interviews lasted no longer than 25 minutes each and recorded for transcription and data analysis purposes. Interviews began in the space between the ELA and history classes and were then moved into the space where the PE teacher maintains a desk and recess equipment known as “the closet.” Questions focused on understanding the residual effect of the experience of using PL Tech, how the students connected education to the real world, how students situated themselves concerning this educational experience, literacy learning, pedagogical practices, and what they would like the educational designers to know about the use and design of the program. Questions were organized to understand epistemology, literacy pedagogy, and hegemony through the eyes of the students as well as discovering how students and teachers believe PL Tech has influenced learning and factors they perceive affect their learning (See Appendix C). For instance, students were asked what types of activities they completed as a group and as individuals, how has PL technology influenced your literacy learning, and what do you think the curriculum creators care about?

While multiple informal interviews occurred with the ELA teacher and documented via notes, one formal individual interview was conducted with the English instructor, one with the Education Specialist, one with the reading specialist (See Appendix D) and one with the two administrators (See Appendix E) of the school site. As previously noted, the administration team did not want to be recorded during the

interviews and did not return signed consent forms. These interviews lasted approximately 60 minutes. Both the formal and informal interviews were used to gather historical data about the site, as well as current pedagogical practices, student interactions, and curriculum choices. Questions were organized to understand epistemology, pedagogy, and hegemony through the eyes of those in positions of power over the students.

To have a wide range of understanding about the phenomenon and to confirm or disconfirm what was learned in the individual interviews, one focus group interview with students (Carey, Asbury, & Tolich, 2012; Glesne, 2016; Patton, 2015) was conducted. An interview conversation guide based upon the student semi-structured interview protocol and observation notes was used to facilitate conversations (See Appendix C) and participants had the opportunity to listen and participate in responding to each other as well as to the questions. Using this design, I was able to guide and moderate the multiple interactions between the participants and between the participants and myself (Patton, 2015). Within the focus group interview, students not only shared their personal understandings and perceptions, but also encountered new understandings and experiences of their peers. According to Patton (2015), the construction of the social experience within a focus group may increase the validity of findings as the interactions of the group allow for a deeper understanding of beliefs and often time enable participants to make sense of their own actions. Social constructed forms learning can lead to social action and transformational learning (Lawrence-Lightfoot and Hoffman Davies, 1997).

Document Analysis

Document analysis supported triangulating data through the process of confirming and/or disconfirming evidence. Document analysis began with the initial search of the site through reviewing the school web page, student and parent handbook, and the California Department of Education school profile page for data regarding enrollment demographics, assessment, and discipline reports. In addition to reading the various sources, three FUSD Board of Education meetings were watched online for understanding the relationship between the school site and the district as the school proposed opening a high school.

As this study was designed to gain insight into the epistemology and literacy practices via content choices, document analysis of the texts students were exposed to via PL Tech were examined. This study included in-depth research on the whole class test for eighth grade, *The House of the Scorpion* by Nancy Farmer, and the seventh grade, a play adaptation of Anne Frank's diary. Also, texts provided by Lexia Learning and Summit Learning were analyzed and tracked with student actions on the computer for the duration of the visits.

Impressionistic Records

Impressionistic records are daily documented reflections from the start of the research process through the final writing stages. These records should be writings that identify "...emerging hypothesis, suggests interpretations, describes shifts in perspective, points to puzzles and dilemmas...and develops a plan of action for the next visit" (Lawrence-Lightfoot and Hoffman Davies, 1997, p. 188). The reflections supported developing insights and focusing in on potential themes for later coding of interviews and documents as well as identifying my position within the process. This allowed for

discursive analysis of interviews as I was more able to observe the power plays through the practice of reflection (Brinkmann & Kvale, 2015). Impressionistic records offered me an opportunity to reflect on potential issues of positionality, biases, and emotions concerning how the data was analyzed and interpreted. Therefore, it was essential to include the impressionistic records within the data analysis process.

Data Analysis Plan

Data in the form of transcribed interviews, observations, impressionistic records, and documents and artifacts were analyzed using the Zoom Model (Pamphilon, 1999). Like looking through a camera lens, the Zoom Model focuses in on four different levels of analysis (see Figure 3) while maintaining focus on the bigger picture. Each of these levels or perspectives of analysis aligns with portraiture methodology (Braun, 2014) while allowing for the ability to discover complimentary and contradictory information (Pamphilon, 1999). This allows for a more complete portrait of a phenomenon to be created.

Figure 3	
<i>The Zoom Model of Data Analysis</i>	
Macro-Zoom	Meso-Zoom
Dominant discourses	Narrative process
Narrative form	Narrative themes
Cohort effect	Key phrases
Micro-zoom	Interactional-zoom
Pauses	Transaction
Emotions	Reaction

I listened to each interview a minimum of four times for the various levels of the Zoom Model analysis approach as well as used the Zoom Model to review and code

observations, interviews, documents, and impressionistic records. Each participant's voice told a unique story of their experience in the world of PL Tech. For example, I listened to how each story was told in addition to what story was told. It was through the process of reading body language, reading the transcripts, and listening at the different levels that I, as a portraitist, began to understand how the multiple stories from the participants connected to the larger system of the educational reform movement studied.

Portraiture methodology not only focuses on what story is told through artifacts, interviews, and the five senses of the researcher, but also in how the participants share their story. At the macro-zoom stage of the Zoom Model, I listened to and read the transcribed interviews, read the observation notes, and impressionistic records for socio-cultural impacts, dominant discourses, and historical connections to self and society. This level of analysis supported answering the research questions on a global level while providing deeper connections to the political and social discourses of assessment, teenagers, and efficiency in learning and work that students are beginning to use to speak of themselves. While listening and observing at the macro-level, the researcher also pays attention to what teens are resistant or hesitant to speak about. At this stage, it is also important to note that the age, socio-economic group, geographic location, and family may be factors that influence the story told as these factors influence the dominant discourses people hold concerning their identity (Pamphilon, 1999).

In the second listening and reading, I focused on the meso-zoom level of analysis in which I analyzed the themes constructed by the participants. At the meso-zoom focus of analysis, themes constructed by the participants are analyzed as well as what is offered in the story and what is absent. This is done through analyzing aspects of the narration

process: the style of narration used, levels of description, argumentation, and theorizing offered by the participants (Pamphilon, 1999). Rosenthal (1993) notes that by acknowledging what is added and left out of a story, the personal values of the life history emerge. I sought to discover the ways the students and teachers were creating their life story via their experiences within a personalized learning technology classroom. It is at this level of analysis that key phrases supported identifying how the participants perceived themselves in relation to society as well as to what extent they are retelling a hegemonic narrative (Pamphilon, 1999). At this level of analysis, how students entered the classroom, their clothing choices with the uniforms, and the various level of interactions with their peers and the teacher were as telling of their stories as their interviews.

The third stage of the Zoom Model, the micro-zoom, pays attention to the emotion shared in the telling of the story. This requires paying attention to pauses, lack of expression, struggles to explain, and tone. Analyzing notes at this level was about searching for instances of slight shifts in behavior or nuanced eye connections with peers across the classroom. At times in my interviews with all participants, it was noted that when offering any discursive details or information about personal experiences with the pedagogical practices of the technology used, the participants chose to whisper, lean in closer as if sharing a secret, or often asked to meet in other locations such as outside or away from the site as the teachers requested for their formal interviews. As Pamphilon (1999) notes, this level of emotion “reveals an incongruence that demands further consideration in relation the larger story being told” (p. 396).

The final stage of analysis is the interactional-zoom in which the researcher reflects on the transaction of the interviews and observations. Pamphilon (1999) shares that this stage is not only about the relationship between the researcher and the researched; it is also about the researcher's interpretive role and what she chooses to make visible. In this sense, the researcher's role is not objective invisibility, instead my role in the research is documented by recording all questions, comments, and thoughts. Throughout the interview transcriptions and impressionistic records, I recorded subjective experiences that may have impacted the interviews and observations. For example, in my impressionistic records, I found evidence of relationship building with potential participants, which may have led to them returning signed participation forms. In one case, a student commented on my shoes in class because we both had the same style and color of Converse shoes. In another instance, a student stayed a few minutes after class to ask about college and I shared my experience as a first-generation college attendee. The teacher also requested professional development support ideas and I provided potential readings for a new English teacher, which he had not encountered. Through these brief encounters, I may have reflected connection, interest in the students and their lives, or compassion for their experience. In telling their stories, I cannot help but use my own experience and knowledge of attending elementary school in the same area as I expose the learning situation at the site.

Composing the Portraits

After moving through the four stages of the Zoom Model analysis, I began to compose portraits of the participants as a way to elevate their stories and experiences. The different levels of the Zoom Model analysis were brought together as a historian

might do when documenting a phenomenon (Pamphilon, 1999). This included returning to my research questions, which started the inquiry process in order to finalize my findings. Portraiture methodology insists that the researcher asks what she has learned in the process, how she came to that knowledge, and how creating the portraits enhanced understanding, much like the interactional-zoom of the Zoom Model analysis. It was through the iterative process of data analysis and constant returning to inquiry, which enhanced what I understood to be the experience of the participants.

Ethical Issues Working with Marginalized Students

Benjamin (2019) shares that Race Critical Code studies is not only about how and what is studied, but how the researcher analyzes. This means being aware of and questioning our assumptions and beliefs around what it means to be an academic and activist (Benjamin, 2019). Not only should researchers seek deep connections, but they should also pay attention to surface-level connections. In this sense, thin description is as crucial as thick description. This description allows for exposing traceable links between various levels of institutions while also serving as a method to respect particular boundaries (Benjamin, 2019). Thin description allows for veiled information for the sake of story and discretion in the face of The New Jim Code, which works to penetrate, extract, and expose all personal data (Benjamin, 2019). Exposure has the potential to put marginalized people at risk and this type of vulnerability is “central to the experiences of being racialized” (Benjamin, 2019, p. 101). Similar to Fanon’s (2008) experience in which he shares the vulnerability of being looked at, but not genuinely seen due to his skin color, exposure may serve as a form of oppression.

While this research is paradoxical in its desire to expose the experience of students using personalized learning technology and relied upon a data analysis process aligned to the metaphor of a camera, a technology which has its own history of documented racism, I will work to incorporate thin description when I find instances of potential overexposure which may lead to further vulnerabilities of the participants in this research.

CHAPTER FOUR

LISTENING THROUGH THE NOISE

As I write, I find myself sitting in silence, surrounded by bookshelves overflowing with books I have collected since I was a teenager, like Jorge, one of the participants in this study, who has started collecting books. This setting contrasts the place where I met my participants, a place I have revisited via recorded interviews and observations. I have closely listened to clanging and echoing slams of doors in the gym-turned-classroom, the voices of teachers talking over each other while trying to maintain the students' attention, kids talking over teachers, audiobooks and videos playing full blast, and typing on keyboards.

Surrounded by such noise, I met with students and their teacher to discuss literacy and technology. With each relistening of recorded interviews, I realized I was zooming in through the metaphorical and literal levels of noise to explore more deeply about my participants' experiences using personalized learning technology in their English class.

In this chapter, I introduce Apollo, Jaye, Nikki G., and Jorge. I let each student choose their pseudonym for the study. Jaye chose her name based on a Filipina wrestler she idolizes. Apollo chose his name to represent both the Greek god of music—he wants to learn how to play the piano—and the historic New York theater. Nikki G. based her name on the “greatest poet ever, who is still alive,” Nikki Giovanni. Jorge selected the name of his favorite uncle, who has inspired him to be a hard worker. The English teacher, here known as Mr. P., claimed he was prudent and so chose Mr. P. In several interviews, he noted he had graduated college with no debt, owing to his “prudent decision” to live at home and work part-time.

Portraits of Students

As noted in Chapter 3 and on the interview protocol (See Appendix C), I asked these students about their literacy practices, personalized learning technology, and the school culture. I created the following portraits based upon what the participants perceived as important in their lives as compared to their actions in class, relying heavily upon the individual interviews, a focus group interview, and classroom observations. After presenting each portrait, I provide findings gleaned from Zoom Analysis, whereby I iteratively listened to interviews and read observation notes as well as documents to discover complementary and contradictory information amongst the various data sources (Pamphilon, 1999). This process fostered a more complete portrait of the literacy learning phenomenon for these students who were using personalized learning technology.

Apollo

Apollo is a seventh grader at PL Tech Academy and close friends with Jaye. They often sit together to work in silence with headphones on. The first time I met Apollo, I arrived in the classroom prior to the students. Entering into the class space is daunting as there are no permanent walls. Due to the limited number of physical buildings on campus and the desire to grow grade levels, the middle school English and history classes are housed in what was once a gym space for the formerly housed church. The gym has windows that are near the ceiling, approximately 20 feet up the wall. Due to the lack of permanent walls coupled with the high ceiling, noises echo loudly throughout the space. The design on the space proves to be an issue for many students as they sit in class; therefore, they bring their own headphones to connect to the computer, muting the voices of their peers and teachers. The Director let me enter the gym through a secret back

entrance. Students were outside the gym on the opposite end, frequently banging on the door. I heard, “It’s cold out here. C’mon, let us in” in a muffled echo throughout the gym. The Central Valley is cold and damp during the winter with thick, blinding Tule fog. While fun for children as they like to play blind tag during recess, the thick fog leaves students who walk to school with damp shoes and sweatshirts. When the doors opened, the history teacher reminded students to enter quietly as leaders. Apollo was the third student to enter the English classroom space, one of two usable classrooms sectioned off by portable walls.

He walked with his shoulders back and head high, immediately noticed me, smiled, and walked over. He stuck out his hand and said, “Hi, I’m Apollo.” I noticed how faded his uniform was in comparison to his ultra-white Adidas Superstars with laces loose and the tongue pulled out high, reminding me how Run DMC used to wear their shoes. He politely asked why I was visiting, and when I said I was a university student, his eyes lit up. “I have lots of questions for you.” And he did. Each time I visited, Apollo would ask about where I went to college, how I decided on a major, and how I paid for it all. This question came up numerous times. When I told him he should connect with a college admissions counselor for the local university, he did and proudly showed the response email along with posing more questions about what he should ask her. “I never considered that I could just email an admissions person and I didn’t really think one would respond to a seventh-grader.”

Once Apollo shared that he began attending PL Tech Academy as a kindergartner due to his sister’s experience at the neighborhood elementary, I realized he and I lived in the same neighborhood. The family had experienced racial bullying from students and

teachers, and in the fourth grade, when his sister's teacher said to the class, "Black students had best behave better," his parents decided to find a different school. I wondered if this was the same fourth-grade teacher who made me pull my son from the same school. For Apollo's family, PL Tech Academy was the only charter without a waitlist within Fresno Unified School District.

Apollo is in the first of two sections of the seventh-grade English classes and is one of six boys. Of the six boys, two are Black, two are Hispanic, one is Asian, and one is white. The white student happens to be the Director's son. Apollo has served as a representative for PL Tech Academy and appears in the brochure and in various promotional videos about the school as produced by Summit Learning, one of the learning platforms mentioned in Chapters 2 and 3. When I asked why he was selected, he shared, "I am well-spoken and like to speak with others. I also want to represent the school as it may help me go to college one day."

Seventh-grade students are currently reading and watching a play version of Anne Frank's diary. During one of my visits, the teacher turned on the projector connected to his computer, reminded students to open their laptops, and directed them to page 15 of the PDF, adding, "As you watch the play, follow along on your laptops. You will be meeting in groups today to discuss your play. You will want to know how to perform." He then connected a large speaker to his computer, hit play, and turned the volume up to drown out the history teacher's video on the opposite end of the gym.

When I asked Apollo about his English project, he explained, "We have to work in groups to perform a part of the play and use evidence from history to support the play, like our clothing choices and proper language choices." The students had no time to

create sets or backdrops for their re-enactments, as the teacher stated, “We don’t have time to do artwork. We only have time for each group to give a 10-minute scene recreation. You should dress according to the time period and act like your character.” Apollo asked the teacher, “Does that mean we should have an accent too? What would they sound like?” The teacher instructed the students to look up where Anne Frank lived and listen to “people from the part of the world speak. You can try to use the accent if you want.”

Apollo wanted to read *The Diary of Anne Frank* rather than the interpretation:

I want to see what she said and if it connects to the set in the play because I know her diary didn’t have speech tags of other people talking. I want to read her actual input and how she felt about certain things. Like I’m better at reading things...

It’s just easier for me.

Apollo claims to enjoy reading and wants to read more but shared that he does not have books at home. He added,

My parents have books. Like my dad has his schoolbooks for becoming a pharmacy tech, but those are science books. I used to try to read their books, but I couldn’t, so it made me sad that I couldn’t be smart like them...and we don’t have silent readings time in class. We used to have it when we had a different teacher, but she got sick of the computers and got let go.

Three different stories of the previous teacher were shared with me from various participants. Adults at the site claim the previous teacher openly shared her disapproval of the computer platform for literacy as it eliminated discourse and deep engagement with books. In one story, a month following the teacher’s voiced concerns, she retired

due to the mandated use of the Summit Learning Platform. Students, like Apollo, claim that she was either sick and left while others claim she was released from her contract. Only one adult shared that the former teacher was forced into retirement. This same teacher at the site shared that growth on the SBAC middle school reading scores was due to the intense reading and writing practices implemented by the former English teacher, and not the Summit Learning Platform. Apollo confirmed the use of reading and writing strategies used by the former English teacher.

She [the former English teacher] would read a page or paragraph to us and then we would talk about it and analyze it. Then, we would silently read chapters to ourselves. During that time, she would have small groups of students work with her in the space over there (he points to the space between the history and English classrooms) so she could provide reading support. And we would talk about the reading. She would ask questions and we would ask questions and we would connect it to our lives.

This is not what Apollo's current literacy experience is like. Whether he is using Summit Learning or Lexia, Apollo is on the computer either listening to a text or answering multiple choice questions. I never heard his current teacher ask questions about the reading or observe a class discussion about a reading.

During Learning Lab Time, Apollo slipped on headphones and opened up Lexia. Prompted to read portions of *The Outsiders*, he turned on the audio. Immediately, the screen highlighted each word, yet Apollo looked around the classroom. He looked at Jaye's screen and then back at his. He paused the audio and slipped his headphones down to his shoulders. He and Jaye began talking and looking at their Summit Learning

checkpoint pages comparing their grades and amount of work completed. When he returned to Lexia, he closed the text and chose to work on grammar before moving to cloze sentence completion for vocabulary building. In a 30-minute time span, he managed to spend 15 minutes engaging with reading and writing skills, 10 minutes of talking, and 5 minutes of moving between different options within the program. Of the 15 minutes spent on reading and writing skills, not more than 4 minutes were spent on one screen or activity. Similar behavior was tracked and noted during each visit and observation.

When I asked how using the platform has influenced his reading and writing skills, Apollo said, “I think it’s my age and we just like technology. We learn multimedia skills and how to write paragraphs. It makes life easier.” He noted they do not write essays and never more than one paragraph at a time because “The teacher has to grade those on the computer. Like that takes time.” Yet, Apollo claimed, “I want to go into civil rights work. That takes a lot of reading and writing. Maybe I’ll get more practice in high school.”

Jaye

Jaye is a seventh grader at PL Tech Academy. We first met in the classroom when Apollo offered me the opportunity to sit next to him and Jaye to observe the students using the platform. Jaye was polite and came up to my shoulder. She usually wore her thick, straight, black hair in a low ponytail. She always entered class quietly, and I initially considered her meek and timid. She spent class time staring at her checkpoints and focus areas screen on the Summit home screen. Checkpoints are the various grade level cognitive skills students must pass in order to graduate and pass to the next grade.

Each checkpoint is related to a Common Core Standard and connects to a project that students are working on. Focus areas consist of content area assessments based upon Common Core Standard skills and understandings by grade level. The focus area assessments are both diagnostic and summative. In order to pass a focus area assessment and demonstrate knowledge, students must pass a 10 question multiple choice test. The focus areas for seventh grade included reading strategies, elements of a story, structures in poetry and drama, word knowledge, and argument structure. There are additional focus areas for texts the teacher has students read. If the class is not completing a whole class reading, the focus areas for the literature can be eliminated per the site Curriculum Director. For seventh grade, the students are reading the play version of *The Diary of Anne Frank*. Other text options include *The Hobbit*, *The Outsiders*, *The Giver*, *The Crossover*, and *Flying Lessons & Other Short Stories*. Teachers select which text will be used in the classroom. When the teacher turned his back, Jaye quietly leaned back in her chair and spoke with MJ behind my back. MJ, who sat on my other side, was embroiled in an adolescent *he-said, she-said* spat. MJ wanted to say something to another person in class, but Jaye told her fighting is not the way. I soon learned that Jaye knows a great deal about getting physical with others. Jaye warned,

Jaye: Focus on your work so Mr. P won't get on to you. If you start a fight, you'll be suspended and won't be able to return. Fighting isn't how to do it. Ignore them. It makes them madder.

MJ: But they won't stop lying about me.

Jaye: Just ignore them. Do your test. Mr. P. is coming over.

Jaye quickly returned to her screen. It was Learning Lab time and students were to be logged into either Lexia or Summit. If students are caught up on Summit, they can choose to work ahead or practice skills in Lexia. Jaye opened Lexia to a screen with a passage from “After Twenty Years” by O’Henry. The screen prompted her to highlight three details that describe the characters. As her eyes darted back and forth across the screen, voices across the room caused everyone to look up. Dominic, an African-American male, loudly questioned, “Why does he get to come in late and always choose his seat?” Dominic pointed to a boy in class who had just arrived, and I later learned to be the Director’s son.

Mr. P. replied, “I’ll have you call your mother right now if you don’t calm down. Now tell me you understand.” As he turned to look at all the students, he finished with, “Many of you are being disrespectful to me at this time.”

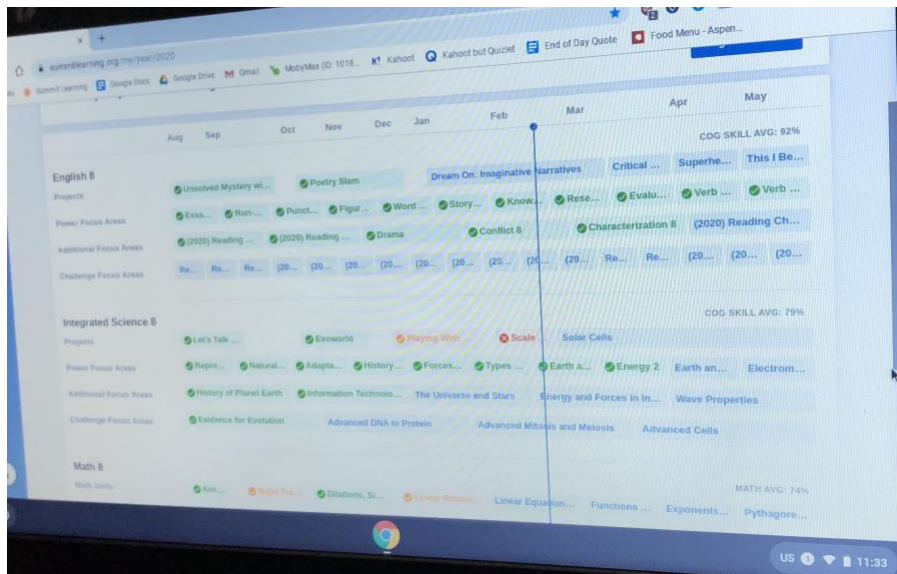
When I turned back to Jaye, she had put headphones on as a way to block out the noise, I imagine. She continued with the O’Henry story, answering multiple-choice questions like, *Which two facts are part of the surprise ending?*

In the midst of a multiple-choice question, Jaye suddenly exited the story and chose to work on story structure within Lexia. Presented with a story by Mona Gardner, “The Dinner Party,” she watched a 3-minute video about the setting of the story: India in 1858. As the story appeared on the screen, seven words immediately lit up and she clicked on them to see a picture and definition. She spent approximately a second on each word: attaché, naturalist, hostess, cobra, commotion, forfeit, and sabers. I barely had enough time to write each word down as she clicked, not reading the definition, only looking at the image.

We were distracted again by a student in the center of the room, as Rico lifted a student in the air, threatening to body-slam the kid while the teacher shouted at him to stop. Jaye slammed her headphones on the table and left the classroom. The story continued to move on the screen without her there to listen or read. When she returned, the story had ended and the screen requested her rating of thumbs up or thumbs down. She put her headphones back on and selected thumbs up before moving on to spelling patterns practice, in which words fly from right to left on the screen and she must choose the correctly spelled words.

She was compliant in completing time on the computer yet moved among the various options. With 10 minutes left in Learning Lab time, Jaye switched over to Summit, scrolled through the home screen, and scanned all of her courses. There is a blue line that dissects the page, dictating her expected progress for the various courses. For English, there are four areas of focus (See Figure 4): Projects, Power Focus Areas, Additional Focus Areas, and Challenge Focus Areas. Items she has completed are green, items that have yet to be completed are blue, and missing items are red. If an item is completed with a low score, it is marked in orange. When I asked if she likes learning this way, Jaye said,

So, I like Summit, but it also it like irritates me because the line continues to move. And if you're not caught up by that time, then you start getting red and you start falling behind and you keep thinking like, *I need to catch up, I need to pass these Power Focus Areas*, and then your grade goes down. So everyone's kind of like stressed.

Figure 4*Summit Student Dashboard*

With 5 minutes left to go, Jaye shook her head and began to pack up for lunch. She looked at Apollo and said, “My eyes are tired today. I don’t want to do anymore.” Apollo agreed and packed up as well. They quietly talked about a television show they both watch and waited to be dismissed. The teacher announced that a few students who behaved well during lab would receive a treat and proceeded to pass out Airheads, a sugary taffy, to half of the class while the other half watched. He also stated that those without the candy would have a 2-minute detention and not leave for lunch at the same time. Jaye and Apollo are both handed a piece of candy and allowed to leave.

A typical day as described by Jaye goes,

...from 8:30 to 10 we do English projects and focus areas in Summit, then we go to break from 10-10:15 and history from 10:15 to 11:45 and then to Lexia from 11:45 to 12:30. Then we come out and have lunch. Then we have history PLT

from 1:15 to 2:10. Then we have English PLT (Project Learning Time as described in Chapter 3) until 3:15. Then we leave.

The computer is at the center of their learning time. At no point during the seventh grade English Language Arts class do students participate in any learning outside the computer. Their devices are always open and in use. All reading and writing activities are done using the device and platform. Beyond students asking questions about how to complete a task or where to find information, there is no discussion about texts.

More than anything, Jaye wants to wrestle. She currently practices every day after school and has traveled to tournaments in Texas, Nevada, and San Diego. She wrestles at the 83-weight range. Since PL Tech Academy does not have a high school or offer any sports, Jaye must compete with a club outside of school. Her entire family is involved. Her older brother and sister compete at the high school level and tell her it is hard to do both sports and school. She worries about this, explaining,

I see the work they do. They have so many classes every day and so much reading. There are so many pages. It's just hectic. Like my sister reads a novel every 2 months and then there are history books and math books. I don't like reading. All of our reading is on the computer, so maybe it's different. I don't know.

She does not like reading and does not have any books at home. For class, the students lack access to books beyond what is provided on Summit. In September, the class listened to *The Giver* on audio and followed along on the computer. Jaye shared that some kids would close their laptops and go to sleep while the audiobook played. If she could choose anything to read, she says,

I like mystery cuz like I really like to be on the edge like guessing and stuff. And I like funny books, but we just don't read books...but one time we had to read a whole chapter (in English class) from a book and come with a thesis and evidence and that really helps me in history.

When asked about writing, Jaye shared that the class does not write essays. They have learned how to write emails because that is how they communicate with their teachers, but the most she has written on any subject is only two paragraphs. She reasoned, "The teacher has to grade the writing and not the computer, so it takes too long for him to read essays from all the students." When students write response paragraphs or reading summaries, they do so in Google Docs and share that document with the teacher. The teacher then provides feedback on the writing via rubric within the Summit Learning Platform. All other work is completed via multiple choice questions within Summit Learning or in Lexia. Students receive instant scores on this work. Meaning, the only grading a teacher must complete is written feedback, yet the teacher has no time to do so as most grading and preparation time are spent analyzing the data from the platform to prepare one on one meetings with students. In these meetings, the teacher discusses what has been completed well in Summit, areas of strength, areas of weakness, and skills to continue working on in Lexia to support better scores in Summit. Typically, the teacher ends these meetings with a check in on personal life situations or checking on IEP goals.

Jaye was calm throughout our interview and even in class. Given the loud classroom due to the two classes' competing in the same space, I asked her how she remains so calm and whether her training as a wrestler has helped. She responded,

Wrestling does teach you to be focused, which like helps when we have to listen to the audiobooks as a class cuz like other students want to interrupt or the other class has a movie they are watching. But like the platform times, I use my headphones and listen to music while I work. And the work is calm that way and I don't have to talk to others when I do that....So like honestly even though it's (Summit) irritating and stressing, it's helping me to be good at keeping a schedule which is calming cuz the line keeps continuously moving and then you just have to keep focusing on work.

Jaye's determination is evident. She is going to pass seventh grade and move into the eighth grade. As I reflect on her interview, I am reminded of the envy I had at how she could remain so calm in a chaotic situation. I channeled her abilities to help me sit through the eighth-grade classroom as they listened to *The House of the Scorpion*. That is where I was able to observe and interview Nikki G. and Jorge.

Nikki G.

Nikki, an eighth grader, sits on the south side of the room near the whiteboard. When the class is not listening to *The House of the Scorpion*, the eighth-grade reading selection, she slips on her headphones and stares at her computer, moving her hand across the trackpad. When I first introduced myself to Nikki's class, she was the only student to approach me after class with a list of questions she had not wanted to ask in front of her peers. She was the first eighth-grade student to return her parent-signed consent form.

Nikki was born in the Bay Area and moved to Fresno in the fourth grade, attending school in the airport district. Her parents put in applications at various charter schools and enrolled Nikki at PL Tech Academy for her fifth-grade year. She does not

love the uniforms and explained, “I do little things to my uniform like changing the belt, folding the legs up so they are skinny jeans.” She laughed when I shared that in the ’80s, we called it “cuffing” or “pegging” our jeans. Sometimes she plays with her hairstyles since she cannot change the uniform: “Sometimes, I let it be natural and sometimes I let my mom braid it. If she braids it, she uses bead that aren’t school colors, but that was more last year. This year my braids aren’t like little girl braids.”

While the uniform may cause unease, Nikki loves her friends, noting:

everyone gets along, it’s like, at my other school, it was more separated, like the grades were separated. But here, it’s like everyone knows everybody you know, and it’s like, I guess, people have their cliques, but like at the end of the day, everyone can hang out, people can bounce from group to group. Cuz we’re more alike than other places.

When it comes to getting along at school, Nikki credits the counseling program she attends, her homeroom teacher’s mentorship (the science teacher), but not the leadership courses or success habits: she laughed out loud when I mentioned the latter. Per the daily routine (shared in Chapter 3) students participate in leadership class at the beginning of each day. In this course, students learn about Covey’s seven habits of student success. The seven habits can even be found painted on the outside of the buildings. In my observations of the English classroom, the leadership class time was used to recite the class rules, recite the seven habits of success, settle in for the day, and to begin working on Summit Focus Areas. As Nikki shared, she attends private counseling meetings with the school psychologist each week to talk about emotions like anger and anger management and said:

And then we have mentor time with teachers, too. So like last year, it was a random selection of students with different teachers, but this year it's our homeroom teacher and each day Mr. Y, my homeroom teacher, meets with five students...and we talk about life for like 10 minutes. I love that.

Nikki's smile widened as she talked about her mentor time with her teacher, adding:

But like if you have something to talk about, he'll talk to you for however long you want. Then he'll transition to Summit and like, tell you what you need to work on and what you're doing good...but like the system tells you that information already.

As she moved into academic references, her smile faded, but not because she does not like schoolwork. In fact, Nikki loves writing and has joined an after-school writing club.

An aide, not a teacher, runs the writing club. Nikki described him as "light-skinned with glasses, AND he has a whole bunch of piercings." Nikki also shared he is "really passionate" and how the instructional aide tells the students in the writing club that they "have potential and are all writers and creators," but the class is only for eighth graders. According to Nikki, the aide had to petition to have a club after school because he does not have a credential. Because of this, he can only work with eighth graders but hopes to have seventh graders the following year, if parents will sign waivers.

Summit does not allow time for independent reading or writing outside the platform in class. As Nikki began to describe her interactions with Summit, her voice flattened and she stared at the wall as if reciting a script:

There are always deadlines. There is a line that moves through the day or different weeks and it tells you – okay, this focus area needs to be done by this date...if it turns red, you missed it. And then, if you've passed it, it turns green...

Nikki appeared bored when talking about Summit, but was not shy about her progress, sharing,

Like for me it isn't stressful because I'm always doing my work. Not to like brag or anything, but um, you know it's not as stressful unless you're not like doing your work at all. Like you really have to do the work. Most kids just try to do the tests without doing the work. But you really have to go and look up answers and watch the videos. If you watch the videos, the tests are easy. The videos just give you the information you need.

Nikki might not admit to feeling the stress of completing her work in accordance with the blue line however, it can be challenging to complete work during class as the noise level and behaviors can be distracting.

Nikki, when not listening to the audiobook as a class, wears headphones the entire time. Each time I observed her class, she only took them off to use the restroom. The classmates sitting around her did the same. Even when a student started dancing and singing in the middle of the room, the girls did not acknowledge the scene except to turn up the volume on their headphones. When the student began to do the worm, a dance move, on the floor, the teacher finally stepped in and shouted, "Get up off the floor, now!" Nikki explained,

Well, there's like a group of students that are always working...those that are working just doesn't talk to anybody, you know. Some kids go to the middle (the

space between the two classes in the gym, a third class space that is not used at the moment) to get away to work and then there are the kids who need the teacher for their behaviors... It's like free-range versus monitored because like you get it done or you don't and because the teacher is there more for like behaviors instead of like education, you know?

When it comes to Summit and Lexia, Nikki admitted it is boring and it is easy to be distracted, but her headphones help. She noted the programs have helped her understand English grammar, which gives her "a good feeling to know that kind of information." Yet, when her group finishes working, they spend the rest of the day talking, which can be upwards of 2 hours of social time at the end of the day and the "teachers can't do anything about it because if we work too far ahead, then we finish eighth grade and since they don't have the high school starting, like they can't give us high school work."

While Nikki may have 2 hours of free time every day, she claimed there isn't any time for free or independent reading of personally selected books: "We do a lot of reading on Summit, like reading directions, descriptions of assignments, and test questions and then like stuff we don't know, we have to search on like Wikipedia or somewhere online." While students may be reading, it is not the type of reading which requires critical analysis. Rather it is to find answers to questions for tests which will then demonstrate to the teacher the student understands the skill. Within Summit Learning, students must pass a 10-question multiple choice quiz to pass a focus area or skill set. Prior to the assessment, students are given multiple resources within Summit to learn about the skill. Summit Learning provides resources and links to learn about a skill

outside of the platform. In the eighth grade, students must pass a focus area on identifying sentence fragments. To support learning how to identify sentence fragments, Summit Learning instructs students to visit chompchomp.com (See Figure 5).

Figure 5

Summit Learning Sentence Fragment Resource #1

PASSAGE 2

Directions: Read the passage below. Choose the part that is a **fragment**.

Ever since Andre peeked at Melissa's paper during the biology exam. Guilt has consumed him. Even the blueberries floating in his cereal bowl seem like the accusing eyes of Professor Gregory, his biology instructor.


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On this site, students have the opportunity to move through 45 different passages to identify sentence fragments. To practice revising sentence fragments, Summit offers students the opportunity to visit grammar.ccc.commnet.edu (See Figure 6).

Figure 6

Summit Learning Sentence Fragment Resource #2

Repairing Sentence Fragments




Directions: The following paragraphs (in blue font) are a veritable butcher's shop of fragments. In the text-areas below the paragraphs, rewrite the paragraph, repairing the fragments as you go along. Some slight re-wording may be required. When you are finished, click on the **Grammar's Versions**, which will reveal how we would have written the paragraphs. If you cheat by looking at Grammar's Versions first, your computer will turn into a slice of mortadella.

Although women's college basketball in Connecticut is a marvelously entertaining and popular sport. It not hard to remember. When it was not so popular. Which is hard to believe. Only a few years ago, my friends and I to go to a women's basketball game. And we could get seats for free near center court. Especially on Sunday afternoons. Of course, that before names such as Rebecca Lobo, Jenn Rizzotti, and Kara Wolters became household words. Lobo's book, HOME-COURT ADVANTAGE, which she wrote with her mother. A best-seller in Connecticut. If more than a couple of hundred fans showed up for a game. It was considered a big turnout. And games were played in practically silent gyms. Because the fans didn't care who won. Nowadays, it almost impossible to buy tickets to a women's game, and you can't get seats. Unless you know someone.

In the text-area below, repair all the sentence fragments in the paragraph above before clicking on "Grammar's Version." If you wish, click on "the fragmented text" and the above text will be duplicated in the text area below.

The fragmented text



The ancient practice of sentence fragmenting

On this site students can revise sentence fragments. However, the site does not provide feedback. It simply shows the correct answers.

As I observed Nikki move through these possibilities within Summit, I noticed that she only spent a maximum of two minutes on any given resource site. When I asked her about this, she replied, “Well, you don’t earn any points or grades on work and practice outside Summit. So, we don’t spend too much time on those sites. They’re just for getting instruction, like what a teacher would normally give.”

Trying to understand what she considered to be real reading I inquired about the book the class was listening to. When asked directly about reading books in class, she responded,

Well, we’re reading *House of the Scorpion* and listening to it. It’s okay. It’s like a mystery, but it really tells the truth about how things are with drugs and Mexicans. But, yeah, there are lots of books that the old teacher left...and so if

you want to grab a book and read you can. Honestly, I don't think anyone has the time to read because the, like Summit and Lexia, take up the whole day for most kids.

Nikki understands that the reading she participates in to gather information on how to complete a task or about a skill in English is similar to instruction she would receive from a teacher, but she is trying to learn it on her own via the Internet only to demonstrate that learning via a 10-question test. Additionally, without a teacher modeling critical questioning of a text, Nikki accepts the hegemonic messaging of the book her class is reading.

Jorge

Jorge is a 6-foot-tall eighth grader at PL Tech Academy. Every day he attends English class, he chooses to sit with his back toward the class, at a table against the far wall. He walks with his shoulders hunched forward and sits in the same manner, as if trying to hide his height. The teachers talk about how they believe Jorge's age is not accurate on his birth certificate as "most Mexican birth certificates are wrong because record-keeping is not the same in Mexico like it is here." Jorge is aware of these rumors about his age, which appear to sadden him. He shared,

They think I'm older than I am because I'm so tall. They ask when my *real* birthdate is. But my grandpa is tall. He is almost seven feet tall and so is my dad. We are tall people. That's all.

During Project Time, when the teacher played the audio version of the book on a large portable speaker, Jorge inserted orange earplugs, the soft foam kind used to muffle sound, and read *The House of the Scorpion* to himself. His lips moved as he read. I was

not certain if he did this to create a narrator's voice in his head or to drown out the audio version or both. When the teacher paused the audio to remind students to pay attention, Jorge put his hands over his ears and his elbow on the book to hold it open. When reading ended and students placed the books back on the book cart, Jorge slid his book into his backpack and whispered to me, as if to ensure I know he is not a thief, "I bought my own copy and read it in 2 days." This surprised me as it seemed I would not meet any students who had access to books outside of class. He told me later in a private interview, "Now I read it so I can answer the questions in Summit. It's just as good the second time. Even if I have to read it slower."

Jorge loves reading. He has 15 books at home that he has purchased himself. He buys books he has read previously through the local library, explaining, "I'd buy every book I could, but I only have so much allowance and need to save for college." Jorge works for his uncle on the weekends doing yard work, a booming business in Fresno. He shared,

My uncle would have me work with him every day so he could get more done, but he knows school is important because I'm going to be the first in the family to go to college. I mean like a 4-year college. My cousins have gone to schools, like one went to beauty school and now she does hair and wants to own her own salon, but I want to be an engineer. I think.

When I asked about the books, he lit up and exclaimed, "The first book I purchased was *Percy Jackson and the Lightning Thief*. I like adventure and I really like Percy Jackson because of the myths. After I read it, I learned more about the myths associated with it." Stuttering slightly at the word *associated*, Jorge paused and looked

away, sharing, “When I try new words, I stutter them. Then when they are mine, I don’t stutter anymore.” I shared with Jorge that I had a heavy lisp and used to work with a teacher in the third and fourth grade to eliminate it, but sometimes when I am tired or excited, it returns. He asked for an example, and I shared one. He responded, “And you still went to college?” relieved to hear that people who stutter or have a lisp can attend college, as if he feared it somehow impacted his intelligence. Continuing our conversation about reading in class, Jorge shared his frustration:

The previous teacher here for seventh grade made us read a lot. We read two books in the fall and two in the spring and we had to read a silent book of our own choice. So I read eight books last year just for class. Now we do everything in the computer and this book (he holds up *House of the Scorpion*) is the only book we have read this year. And we don’t do anything with it. They (he points back toward the direction of the classroom) make us listen to an audio version really loud. We don’t talk about the book. We answer questions on a document in the Summit screen and then do other computer work...the worksheets are called Socratic worksheets and ask about the theme, main idea, and other things.

Jorge isn’t exaggerating when he shares that the audio is played loudly. There have been times during my observations of the class when I struggle to focus over the volume of the audiobook mixed with the audio from the history class at the opposite end of the gym or from students interrupting and yelling over the audio. He also is not exaggerating when he says that the class never discusses the book. I have been curious about this as the story is quite violent and racist with images of Mexican as drug lords taking over the United States.

When I asked if the class ever talks about the book, Jorge shook his head side to side, indicating they do not. He added,

The teacher will tell us what line to use to answer the questions...He yells over the audio, 'This is the part you want to use to answer the question about theme'...I can still hear him through my earplugs...then we have like 3 minutes to ask people around us what they are selecting for theme before we answer.

I observe this type of scenario each time I visit the eighth-grade classroom. Some students sit with books open and some with books closed, heads on their desks and some with their eyes closed. They can't do anything else but listen to the audiobook. At the end of each chapter the teacher asks them to write a one sentence summary or to state the theme of the story. Not once does the teacher ask a question about why the author would choose to describe Mexicans the way she does or why she would make them Drug Lords and field drones.

Jorge likes the book *House of the Scorpion* so much he purchased his own copy. The book is listed at \$12.99. He shared that his uncle pays him \$100-\$125 when he works on the weekend. He keeps 10% for spending and puts the rest in savings. He buys gifts for his siblings and cousins and items for himself. Saving is hard, but he has been working with his uncle since sixth grade. This year he will work with his uncle over spring break and 4 days a week during the summer. "I'm getting closer to college, so I need to be prepared."

Knowing Jorge enjoys the books selected for class, I hesitated to ask about the book's message. For 2 days I followed along with the audio before purchasing a copy to read and analyze. I needed to understand the book if I was to understand the reading

choices. The graphic scenes of violence and the images of Mexicans as both drug lords and mindless field laborers both saddened and enraged me. Yet, I wanted to understand how Jorge felt about the messages the book delivers. I shared that I had purchased the book and then asked the hard questions about issues of race and diversity offered by the text. He answered,

I guess I didn't even think about that because it's, well, it's just the way it kind of is. Mexicans are taking over and the news shows how they cross the border...I mean, it won't really happen like the book because we have a border wall (he pauses for a moment) but I guess it's how we are seen. Lazy. Drug users. Drug dealers. It's just the way it is.

As noted previously, the teacher never once stopped to lead a discussion about the depictions of people or the racist hegemonic message being shared. Nor did Summit Learning Platform provide any supports for questioning the text in such a way.

Zooming in Through the Noise

Zoom Analysis is an iterative process for examining multiple levels of meaning within qualitative data sources (Pamphilion, 1999). The levels of analysis—macro zoom, meso zoom, micro zoom, and interactional zoom—are not separate from each other. Rather, the researcher may zoom in and out of these connected moments as if operating a camera lens (Pamphilion, 1999). In the sections that follow, I present my findings regarding the use of personalized learning technology in a middle school English classroom through the lens of Zoom Analysis. My goal was to answer the following research questions: how does personalized learning technology (PL Tech) influence literacy learning, what skills and knowledge are developed via such a platform, and does

such learning support students in gaining literacy skills and knowledge. I also wanted to understand what social and structural factors within the classroom and school impacted literacy learning within a PL Tech environment.

Macro Zoom – Focused on the Noise

The macro zoom focuses on the sociohistorical aspect of participants' stories, or how people see themselves in relation to society. At this level of analysis, my goal was to discover what cultural impacts and dominant discourses students carry about themselves in relation to literacy and personalized technology. In listening to and reviewing all data at the macro level of analysis, I identified three themes: students are efficient readers and learners, technology is the teacher, and learning is for testing.

I'm an Efficient Reader

Throughout the individual and focus group interviews, students repeated the phrase, "I'm an efficient reader." For 4 students in this study and for those I observed in the classroom, this meant they were able to quickly scan reading materials, define unknown terms using an online dictionary, and answer multiple-choice questions with at least 80% accuracy, which the school considers passing. To keep the *blue line* moving on their Summit screen at the proper pace, students admitted that efficient reading did not always include "real" reading. The goal was to pass tests quickly, which meant skimming and scanning a variety of texts to find main ideas, looking up unknown words that might be connected to the theme, and often reading questions prior to reading a selection.

Observing students use either Summit or Lexia platforms confirmed what students shared in the interview. Students moved back and forth between open tabs on their computer to look up information about poems or story selections provided by the

platform. Rather than read and analyze a text, students demonstrated they could discover a text's meaning by searching for someone else's analysis more quickly, this included Jorge, who loved reading books, but needed to become efficient while completing tasks on the platform. Students also looked up words rather than figure out their meaning through the use of contextual clues. Jaye, in her interviews, often spoke about the stress of the learning platform in both her individual interview and in the focus group interview. Her actions in class differed. She often moved between various open tabs as if unfocused. She was scoring a B on her English Summit work and an A in math and history. As all courses are situated within the Summit platform, students are able to access their content area classrooms wherever they are including home. Meaning that school work was always accessible. In the focus group interview, students discussed the stress caused by the needs for efficiency.

Jaye: The blue line is always moving and you have to keep up with it or get ahead of it.

Apollo: If you don't, it turns red and that's not good.

Jaye: It's stressful.

Nikki G: It is stressful, but it will make us better workers one day. We'll be more efficient.

Apollo: Yeah. Efficient. We'll be faster and ready to do more.

Jorge: But it's not like kids in real stories like on T.V. They have real classes where they read and talk about reading.

Nikki G.: Yeah. That's true, but we don't have to have homework like they do if we get it done.

For the students, efficiency also meant working fast and hard while saving enjoyment for outside class time or for the end of the class day as shared by Nikki G., yet they noted not everyone in their class was ready for this level of efficiency and that some kids misbehaved, an idea the teacher confirmed.

Jorge: Efficiency is working hard and fast while doing a good job. My uncle is always telling me to be efficient when I work with him. Like, “Don’t take one tool back to the truck when you grab two. Save some energy for later.” But he says it in Spanish.

Apollo: Yeah, my dad says something like “work smarter, not harder” and is always saying that it’s about getting it done and done right.

Nikki G: Yeah, but like not everyone can work at the fastness required. You know.

Apollo: Yeah. In our class, we have a few who can’t. Sometimes, I don’t want to.

Jaye: Yeah. Like XXXX. He’ll just throw fits and dance in class.

Nikki G.: OMG! Like we have kids in the eighth grade who do the same. Like she was here (points at me) and he did the worm!

Jaye.: What’s the worm?

Apollo and Nikki: (Both move their arms like a worm.)

Nikki G.: You move like a worm on the ground.

ALL: (Laughing)

Mr. P. shared similar insights about efficiency and stress with the platforms.

I know I'm a new teacher and I don't know all the tricks to good teaching, but the system keeps us on track. We don't have time to divert our attention to deeper questions or discussions because the platform provides a timeline... While students are moving through their screens, I also have a timeline for the readings. That's why I often orally give them the summaries for each chapter or point out the evidence for answering questions. We have to be efficient with our time, if we want the students to finish the curriculum.

The sense of urgency created by the moving blue line and needs for efficiency presents a tension with the learning process. As noted by Mr. P., there is not time for discourse, exploration, or connections; thereby, maintaining the idea that literacy learning is a set of disparate skills disassociated from context yet connected to completion and fast paced abilities.

Tech is the English Teacher

Both the students and the teacher shared that the platform was the provider of content and curriculum planning, thereby acting as the teacher while the physical teacher focused on behavior management. This matched with my numerous observations of students interacting with technology compared to interactions between the teacher and students. Having recently graduated from college with a degree in history, Mr. P. openly shared he did not have a teaching credential, nor did he have much knowledge about English as a content area.

I recently graduated and wasn't planning on teaching, but I was working here as an instructional assistant when the position opened. I've worked here as an IA for 3 years, so it seemed like a good fit. But I don't have a credential...I really want

to teach history, but there is a history teacher here. If I want to stay here, I need to take the English CSET. I'm not sure that's what I want to do. The English CSET covers materials I'm not familiar with, so I just need to figure things out.

Mr. P.'s lack of knowledge about teaching English to a diverse student population was apparent within the classroom. Mr. P. admitted he often finds himself attempting to support students, but not knowing how. This lack of knowledge and experience impacts the classroom via text selections, writing instruction, reading instruction, vocabulary development, and providing scaffolds or modifications for learning. To make content available to diverse learners, teachers must have content knowledge and pedagogical content knowledge to differentiate between student misunderstandings and errors, anticipate student patterns of learning, and assess learning (Grossman et al., 2005).

Mr. P. models writing practice orally rather than physically. The following interaction with a student, which took place during a 5-minute lesson on how to write a summary, demonstrates the student's awareness that the platform knows more about writing than the teacher.

Mr. P: A summary is the main idea with embellishments. Write the main idea of the chapter and then add every detail you can remember from the chapter.

Student 1: But isn't that just retelling the chapter? Isn't a summary like a gist idea?

Mr. P: No. A summary is the main idea or action with all the details.

Student 1: I'm so confused. Our previous teacher said a summary was a gist of the chapter like a list of all the main things that happened without the details.

Mr. P: If you would just read the feedback I provide you in Summit writing, you would know and your writing would be great. Now write the summary.

Student 1: (Under his breath to another student) I just passed a test on summaries in Summit. He doesn't know what he's talking about.

Mr. P: Yes, if everyone just goes to checkpoint 3 in Summit, you can read the instructions on how to write a summary.

Mr. P's lack of knowledge regarding working with linguistic diversity is also apparent as he further relies upon the technology to interpret how a story should be shared. In the eighth-grade class, students are reading *The House of the Scorpion*. I found myself cringing during the audio portions of class as the reader on the audiobook moved among imitating Mexican, American, and Scottish accents. In the seventh-grade classroom, when students asked if they should present their portion of the play version of *The Diary of Anne Frank*, using dialects and accents, Mr. P. responded, "They are in the Netherlands, so they probably spoke German or Dutch. I don't know. You can look it up and try to add the accent." When asked if he knew about raciolinguicism, or how students construct racial stereotypes and understandings via language use, Mr. P stated he had not taken any credential coursework at this time. "I think I have to take a class about working with ESL students. Maybe I'll learn more about it then."

When asked about text selections for both grade levels, Mr. P. shared that Summit offers choices of which text a teacher may want to use at different points in the year. For seventh grade, the focus was on learning play structure, and he thought the play version of *The Diary of Anne Frank* would excite the students more than the other choice, which he cannot remember. For the eighth-grade class, he shared,

Well, there were two choices. The one we are reading and *The Golden Compass*.

The Director said we had to read this one because *The Golden Compass* promotes atheism. Her dad is a reverend at a local church. He ran for mayor a while back. I hadn't read either book before we started reading in class. I'm just a few chapters ahead of the students. It's fairly intriguing.

The Golden Compass made the top 10 banned books list from 2000–2009 as the author openly admitted it attacked the Catholic Church (Northington, 2013). Interestingly enough, neither the Director nor Mr. P. had read *The House of the Scorpion* and didn't feel compelled as it had won the National Book Award for Young People's Literature in 2002 and was a Newbury Honor book. Within this text, Mexicans are described as "brainless" and "controlled" field laborers working for drug lords who have taken over the border regions, while Scottish people are described as drunks and terrorists best used as nothing more than bodyguards. Summit Learning Platform not only plans out the year via a pacing guide and assessments, it also determines the larger message being sent to students via the reading selections it has determined are best for the grade level; thereby, taking over the pedagogical and content knowledge aspects of teaching.

As noted previously, a blue line tells students where they should be in their learning with checkpoints and focus areas. If a student falls behind, the Director of

Curriculum and the teacher are notified simultaneously. Should a student fall behind due to reading difficulties, there are no modifications within the program to scaffold learning. Students with 504s or IEPs are to meet with an instructional assistant, reading specialist, or education specialist at least once a week to work on gaining strategies. The teacher is not made aware of the strategies being introduced to the students, as the teacher is to work on managing student behaviors and tracking work completed within the system. Mr. P explained the situation with special needs students,

I have a number of students with IEPs and even more with 504s. I can't change the system for those students. They have to complete everything like everyone else. They just don't earn high marks. The 504 kids are hard though. I just try to manage behavior. Nothing seems to work. It's like the more they're on the computer, the worse the behaviors are.

I witnessed this approach in three seating arrangement changes. Attempting to mitigate talking, and the building of cliques of students who "bullied" Mr. P., he created three different seating arrangements. It was his hope to be able to see all of their faces and know if they were "looking at the computer screen or at others" during class time.

According to Mr. P., if students were looking at the screens, he "would know that they were focused on completing work rather than planning ways to disrupt class."

Additionally, Mr. P., often yelled over the audiobook and the other teacher, to remind students to show him respect, "You need to respect me more than you respect the computer in front of you." The tension between where Mr. P. wanted students to place their attention was apparent. He often said he wanted students focused on their computers working, yet would be frustrated when he asked students to listen to him. It was in these

moments he would interrupt the time of working on the computer to call attention to what he needed students to focus on within the program. I often wondered where the students were to focus. I could sense students' confusion as well. Summit and Lexia provide a pathway of learning. Students would choose to ignore Mr. P. by keeping their headphones on, or as one student asked in class, "Why do you keep interrupting me while I'm trying to take a test?" Such questions were considered rude and disrespectful to Mr. P.

Mr. P took on the narrative of the teacher as a babysitter rather than a teacher as a guide, facilitator, or leader. Whether speaking to the students or within the interviews, he regularly told the class, and me, some form of the following statement, "All I'm doing here is babysitting" and "I'm just watching illiterate students. None of them can read. Really read a book or anything." Having spent the last few years as an instructional aide working one-on-one with students using the Summit platform, Mr. P had not learned questioning techniques to help students access their own thinking and learning. During PLT time, when students listened to the audiobook while following along, he would speak over the audio to point out a detail critical to determining theme or character development.

To provide answers, he would often yell above the audiobook rather than pause it to say something like, "This is a passage you will want to refer to for the Socratic worksheet in checkpoint four." He also spent most of his time focused on behaviors. When students threw things in class, danced in the center rather than work on the computer, or replied with snarky comments such as, "I love you too, Mr. P," Mr. P would

walk around the room telling students how disrespectful they were or exerting dominance as noted in this exchange:

Mr. P: The context of the story is that 100 years ago Mexicans flooded the U.S. borders and took control. Those who gained control were related to a drug lord, El Patron. Now, read page 157 silently while I connect the speaker to the computer.

David: (Name changed. Throws his note-taking sheet across the room.)

Audio: “I’d probably go to hell if I had a soul anyways...”

David: That’s me, a soulless Mexican. I’m going to wander purgatory for eternity (he gets up and begins slowly moping around the room).

Mr. P: Now sit down, David. I’m tired of babysitting today. (Audio is still playing and Mr. P moves around the room, following David until he returns to his seat.)

Audio: (describing a violent scene)

David: (announcing to class) I saw a guy get shot, just like in this story. We aren’t soulless people.

Mr. P: That is enough, David. Kids don’t see people get shot like in the book.

Paul: (Name changed.) Mr. P, I’m hungry. Do you have any snacks today?

Mr. P: Snacks are for those who finish their work. It’s like getting paid.

Audio: (The story continues for 15 minutes without incident.)

- David: (Gets up, knocks the books off the shelf) THIS story is BULLSHIT. (He leaves the room.)
- Paul: (Gets up, picks up the books, slams them down one by one on the shelf.) Do I get a snack for helping?
- Audio: (Another 10 minutes pass. During this time, the book goes into detail about a violent beating of a teen in prison. Whispers start moving around the room, “That’s just like T in juvie.”)
- Mr. P: Stop the whispering. Listen to the story. I’ll do you a favor and summarize the chapter for you. Be ready to type it in your checkpoint.

When asked his opinions on the interactions with students during the reading of the text, Mr. P connected their behavior to boredom and his inability to plan anything beyond the platform.

The work is already done. I don’t have to plan anything, not even questions. It’s all there. I just make sure to keep the kids on track with the blue line and checkpoints. It’s like babysitting a bunch of kids who can’t read or write. That’s why I give them the summaries. It helps us move at the right pace. And the Learning Director watches us on the Summit dashboard to make sure we are on pace.

In asking about the content of the story and if the content might affect behaviors in class he claimed that the book was just a story and that the students “have seen worse on t.v.”

It’s About the Test Not Us

Students in both seventh and eighth grade shared that learning at school is about passing the tests. Whether it was Jaye and Apollo comparing scores on previous checkpoints or my observations and interviews with students who expressed they were stressed about not passing a test and having to wait until the following day to retake it, learning was always connected to testing. The students discussed this idea during the focus group interview.

Jaye: So you work to pass the test. It isn't about liking the stories.

Nikki G.: Right. Like just answer the questions and move on. Fun stuff is for home or after school.

Jorge: Except for that day in history when the history teacher shared the documentary about the Black Panthers because the Marvel movie was big. That was cool.

Nikki G.: Yeah, but he got in trouble because it didn't match up with Summit. I think the Director's son complained about it.

When asked if school should be more than just a test and if students should connect with reading in school, the participants were silent for 53 seconds. The participants struggled to find words to explain their thoughts.

Apollo: Well, of course it should be more, but they tell us that kids who go through Summit here do better in high school because they know how to schedule their time and get work done.

Nikki G.: I don't know. Maybe. Like I'm lucky cuz I have a writing club and like the teacher there, he always shares poetry from Black poets and spoken word and that's cool. It's really powerful for me

because I connect. Like maybe I would do better in Summit if they used the stories and poets he (the writing club instructor) shares with us.

Jaye: Yeah. That could be cool, like if we could read something we want and do a project instead of a test?

Jorge: Like the other teacher used to do before she left?

Apollo: Yeah, that was fun. We're supposed to be doing projects with Summit, but we never do the whole project.

Jaye: But it's about the test now. Like we're invisible to the computer. It can't see who we are and what we like.

As previously shared, Jaye wrestles. Per the stories selected for Summit and Lexia, characters do not represent Jaye as either a Filipina or a female wrestler. In fact, the text selections for either program lack diversity and have limited multicultural pieces. This lack of multicultural literature is further discussed in the following section as the meso level of analysis allows for a look at what might be supporting the macro messages and dominant discourses of stress, efficiency, and technology as teacher. The need to become efficient workers who accept what they are told to do and believe about school is prevalent throughout the interviews and observations. These beliefs are further observed when zooming in further to the meso level of analysis.

Meso-Level: Getting to the Heart of the Noise

At the meso-level of analysis, I paid attention to critical phrases, narrative themes, and the narrative process (Pamphilion, 1999), hoping to discover what themes students shared and demonstrated about themselves and the literacy learning culture. Such

analysis required turning back to the interviews, observation notes, and historical documents. As I compared the orally communicated data to the visual narratives students presented in class, a deeper, more incongruent story emerged about how students see themselves in the English classroom and how the culture of the classroom informs student learning. While each student shared within their interviews that reading is essential, they see themselves as readers, and they believe themselves to be good students, the data demonstrated students' literacy learning as a set of disparate skills, systemic racism, and a lack of personalization.

Literacy as Disparate Skills

According to the reading specialist at the site, students overall are reading below grade level. She believed the increase in SBAC scores was due to the focus on testing individual reading skills needed for testing, but not for maintaining reading attention nor synthesis abilities across longer pieces of text. Both Summit and Lexia break reading down into sets of skills aligned to the Common Core Standards. Summit presents skills as four categories: cognitive skills, power focus areas, additional focus areas, and challenge focus areas. All skills are presented within the units of study when students are reading novels. Students receive grades based upon assessment of the cognitive skills. The cognitive skills account for 80% of the grade and the focus areas account for the remaining 20% of the grade. The learning unit claims to align cognitive skills, power focus areas, and challenge focus areas.

For the seventh-grade unit titled *The True Story of Anne Frank*, Summit provides an overview page to the student with a list of essential questions, list of enduring understandings, a description of the unit, and the skills to be evaluated. Within this unit


the cognitive skills addressed include: structure, relevant sources, informational thesis, explanation of evidence, organization, and multimedia in communication. The power focus area includes structures in poetry and drama, and knowledge of words. The challenge focus areas are two reading assessments. During my time spent in the seventh-grade class, I was able to observe students interact with a unit of study on the Summit Learning Platform.




Jaye appeared to struggle with reading the play version of *The Diary of Anne Frank* online. When it was time to read the play, she would scroll up and down the page, not holding it still enough to read. On more than one occasion, she asked if there was a version of the play with audio so she could listen and read. With no help or suggestions from Mr. P, Jaye spent more than 9 minutes searching for a screen-reader. Eventually, she discovered a screen-reader and was then able to hold the screen still. She listened to the play using headphones and was eventually able to answer the questions on Summit. Yet, Jaye was not the only student to struggle. MJ, Jaye's friend and shoulder seat partner, worked on the power focus area titled structures in poetry and drama. On this screen (See Figure 7), MJ was presented with a description of the focus area, score needed to pass, types of poetry she would need to know, and all of the resources she could access prior to take the test. Students do not need to access all the resources within a power focus area, if they feel they can pass the assessment. In order to complete the assessment, students must request access to the test. The teacher can then see how long a student has spent on the resource page and determine if the student is prepared and the test should be unlocked. On multiple occasions, as students requested access to assessments, Mr. P would open the assessment without seeing how long a student had

spent on the resource page. For this power focus area, MJ spent a maximum of 15 minutes before requesting access to the assessment.

Figure 7

Summit Learning Seventh Grade Power Focus Area Structures in Poetry and Drama

Structures in Poetry and Drama 

Objectives	Focus Area Details
<p>Introductory Materials</p> <p>Resources</p> <ul style="list-style-type: none">  What is Poetry? An Introduction to Poetry and some Common Poem Structures  Focus Area Note-Taker Boost your chances of passing the content assessment by taking notes! This tool will help you learn more from the Focus Area resources. Make a copy to type, print a hard copy, or use it as a guide to take notes by hand. 	<p>Description</p> <p>By the time you finish this playlist, you should be able to - Identify and define common forms and structures of poetry and drama - Explain how common forms and structures of poetry and drama contribute to the overall meaning of the work.</p> <p>Score Needed To Pass</p> <p>8 out of 10 correct.</p> <p>Key Terms</p> <p>Forms and Structures in Poetry: Free Verse, Epic, Verse, Stanza, Couplet, Haiku, Ode, Limerick Forms and Structures in Drama: Comedy, Tragedy, Drama, Act, Scene, Soliloquy</p>
<p>Objective 1</p> <p>Identify and define common forms and structures in poetry.</p> <p>Questions</p> <ul style="list-style-type: none">  What is a couplet? Diagnostic Question <p>Show Answers</p>	<p>Courses</p> <ul style="list-style-type: none"> (2021) English 7 - Habits (2021) English 7 (2021) Kentucky English 7 <p>Projects</p> <ul style="list-style-type: none"> (2021) The True Story of Anne Frank

Note. Figure 7 shows the screen a student sees when they open to a focus area on Summit Learning. The screen is similar to what a teacher sees as well. This means that the objectives and focus area descriptions are not differentiated for students.

During the 15 minutes, MJ watched a YouTube video on common poetry structures and opted to avoid the note taking tool. She watched a slideshow on poetic forms, spending less than 10 seconds per slide - too quick for even me to read each slide. She opened a list of poetic terms and definitions only to skim through the list before watching another YouTube video on poetry. She opted to avoid the Quizzlet practice quiz. MJ also opened but quickly closed two practice questions which required reading two different poems and ignored two more videos about poetry and another slideshow.

Upon beginning the assessment, she immediately opened another tab and began to use Google to search for the answers. The assessment included multiple choice questions about a soliloquy from Hamlet, the poem Annabelle Lee by Edgar Allen Poe, and an excerpt from Anton Chekhov's *The Anniversary*. The remaining questions focused on knowing the differences between odes, limericks, and other forms of poetry by comparing different poems. She missed 3 questions. After another 20 minutes had passed, MJ requested access to the assessment again. This time she missed only 2 questions, earning the needed 80% to pass. Two of the questions she missed, were ones she previously missed. As MJ had searched for the answers to these 2 questions, she said, "I don't even understand what to search for. Who reads stuff like this anyhow?" She was referring to both Hamlet and Anton Chekhov. I am certain that she retained little to no learning from the experience.

Lexia also focuses on literacy as a set of skills separate from one and other. The skills are broken up into 3 strands: word study, grammar, and comprehension. Word study includes Latin roots, prefixes, suffixes, word completion, spelling patterns, sentence completion, Greek combining forms, Greek spelling patterns, and word construction. Grammar includes parts of speech, parts of sentences, capitalization and punctuation, and text structures. Comprehension includes multiple skills focus areas partnered with specific texts.

When using Lexia, students rarely focus on one skill area for a prolonged period of time. As shared in the portraits of Jaye and Apollo, both students often used the time to chat or toggle between multiple activities and screens such as Gmail. Jaye, when working on Lexia, moved between various screens and would often use the restroom during this

time. She would be gone from class for 10 to 20 minutes. She said during an interview, “it’s not like Mr. P even looks at how we are doing on Lexia. He struggles to keep up with all the data from Summit.”

Lexia and Summit are two different platforms and do not align to each other. If a student chooses to work on Greek spelling patterns in Lexia, there is no connection to the unit of study in Summit. Content learning becomes a siloed set of skills. Even within Summit, as students are reading the play version of *The Diary of Anne Frank*, they are to be learning about various forms of poetry. The knowledge associated with knowing poetry does not connect to the play or play structure. Again, demonstrating to students that literacy learning is a set of disparate, disconnected skills. Furthering the idea of disconnection, the text selection presented in both platforms do not work to connect to diverse students or to context.

Coded Inequities: It’s Just the Way It Is

As noted in the theoretical framing provided in Chapter 1 of this study, the critical lenses of Critical Race Code (Benjamin, 2019) and Culturally Historic Responsive Literacy Practices (Muhamad, 2020) were implemented to analyze the literacy learning within PL Technology. The critical lens motivated a revisiting of the multiple interviews, observations, and returning to the texts students encountered via Summit and Lexia. As previously noted, the eighth-grade students were reading *The House of the Scorpion* by Nancy Farmer. The story follows the character, Matteo Alacran, from his birth to potential leadership as a drug lord. The character, Matteo, is a clone of El Patron, a drug lord of the country called Opium. Opium sits at what was once the current border between Mexico and the United States. The book is marketed as science fiction since the

protagonist struggles to understand his existence as a clone created in a petri dish and birth from a cow.

Students follow along with the text while listening to an audio recording. This includes listening to the author's note about the story. In the author's note, Nancy Farmer explains how the setting for the novel came from her visit during Christmas to the border region to gather details about the setting. It is here she provides,

It was a cold, clear morning. We saw the border patrol, also known as La Migra, hiding in various places in the hills. Christmas is showtime for La Migra with all the illegal aliens going back and forth to visit family. (p. 384)

Farmer follows this description with sharing her fear that an "ambush" of "aliens" (p. 384) would occur. However, what she does encounter is a man lying in the middle of the road begging for water. The man explains he had been left behind by his group due to a border patrol attack. She further describes the situation,

Jose, our new acquisition, was trying to walk to Phoenix. He thought it was twenty miles away, but it was really more than two hundred miles. Jose had a poor sense of geography as well as direction...In the old days, when I was a girl, you could overlook a few people sneaking across the border. Now there are thousands of Joses, and since 9/11, the rules have all changed. (pgs. 384-385)

Given the research regarding raciolinguistics (Alim, 2016), problematic words and phrases discovered while reading and listening to the author's note included *illegal aliens*, *ambush*, *acquisition*, *thousands of Joses*, and the insinuation of a lack of intelligence. Unfortunately, this was not the only instance of racialized languages and imagery of Mexicans within the text. However, knowing these words and experiences are

those of the author, these words illuminate why the racialized stereotypes exist within the story. These words also explain why both Nikki G. and Jorge believe that “it’s just the way it is” with how white Americans perceive Mexicans. Not only do the students hear the news stories about the need to build a border wall, they are inundated with the negative messaging in their English classroom.

As previously noted, Mr. P did not select this text for the class to read. *House of the Scorpion* is a suggested reading designated by Summit Learning. For eighth grade, Summit suggests reading a minimum of four novels or plays during the school year. A way to advance the reading practice is to read more than the suggested four texts. Mr. P’s class prepared to read only two suggested titles: *The House of the Scorpion* and *The Crucible*. Mr. P was directed to use *House of the Scorpion* as the alternative text for the unit of study, *The Golden Compass*, which presented ideas of atheism. As with the eighth grade, Mr. P has the seventh grade read only two titles for the year: *The Giver* by Lois Lowry and the play version of *The Diary of Anne Frank*. For each grade level Summit provides pre-created curriculum for units of study (See Table 3).

Table 3

List of Summit Readings by Title, Author Identification, and Protagonist Identification

Title	Grade	Suggested or Alternative	Summit Project Connection	Author	Author Identification	Protagonist Identification
House on Mango Street	7	Suggested Alternative for Flying Lessons	Cultural Narratives	Sandra Cisneros	Mexican-American	Chicana, female

Flying Lessons	7	Suggested Alternative for House on Mango Street	Cultural Narratives	Kwame Alexander, Kelly J. Baptist, Soman Chainani, Matt de la Peña, Tim Federle, Grace Lin, Meg Medina, Walter Dean Myers, Tim Tingle, Jacqueline Woodson		
The Outsiders	7	Suggested	The Outsiders on Trial	S.E. Hinton	White	White
The Hobbit	7	Alternative	From Story to Screen: Comparing books to movies	J.R.R. Tolkien	White	White and fantastical creatures
The Giver	7	Alternative		Lois Lowry	White	White
The Hunger Games	7	Alternative		Suzanne Collins	White	White
The Diary of Anne Frank, dramatized	7	Suggested	The True Story of Anne Frank	Frances Goodrich and Albert Hackett	Jewish	Jewish
The Crossover	7	Suggested	Rhythm and Flow	Kwame Alexander	Black	Black
The Westing Game	8	Suggested	Unsolved Mystery with Westing Game	Ellen Raskin	White	White
The Golden Compass	8	Suggested Alternative for The House of the Scorpion	Dream On	Phillip Pullman	White	White

The House of the Scorpion	8	Suggested Alternative for The Golden Compass	Dream On	Nancy Farmer	White	Mexican
Fences	8	Alternative	Critical Lenses.	August Wilson	Black	Black
Zoot Suit	8	Alternative		Luis Valdez	Chicano	Chicano
The Crucible	8	Alternative		Arthur Miller	Jewish	White
A Doll's House	8	Alternative		Henrik Ibsen	White	White
Tuesdays with Morrie	8	Suggested	This I Believe	Mitch Albom	Jewish	Jewish

For seventh grade there are five potential units of study and four potential units of study for eighth grade. For each of these units, Summit suggests readings and then provides assessments aligned to those readings. If a teacher selects a reading outside of Summit, Summit cannot be used to track assignments or assessments. As PL Tech Academy is partnered with Summit, teachers are not allowed to add or change any curriculum.

The lack of teacher control over the curriculum raises concerns because, as shown in Table 3, seventh and eighth grade reading selections are written by predominately white authors with white protagonists. For seventh grade, 3 authors identify as white, 1 as Mexican-American, 1 as Black, and 2 as Jewish. For eighth grade, 4 authors identify as white, 2 as Jewish, 1 as Black, and 1 as Chicano. For both grade levels, books that might be considered multicultural as they are written about diverse protagonists by authors who represent the same cultural identity were not included in the classes at PL Tech Academy. Meaning there was no opportunity for students to connect with characters who were like them.

Lexia, the other platform implemented in the classroom, does not provide a rich multi-cultural reading experience either. For grades 6-8, Lexia offers 23 different readings (See Table 4).

Table 4

List of Lexia Readings by Title, Author Identification, and Protagonist Identification

Title	Grade	Lexia Skill Focus	Author	Author Identification	Protagonist Identification
Harlem	6-8	Tone & Mood	Langston Hughes	Black	NA Poem
Dreams	6-8	Tone & Mood	Langston Hughes	Black	NA Poem
Oranges	6-8	Tone & Mood	Gary Soto	Chicano	NA Poem
UN Speech Malala (part 1 and 2)	6-8	Persuasive Techniques	Malala Yousafzai	Pakistani	Informational Text
After Twenty Years	6-8	Characterization Irony & Narrative Structure	William Sydney Porter (O'Henry)	White	White
The Dinner Party	6-8	Irony & Narrative Structure	Mona Gardner	White	White
The Last Leaf	6-8	Irony & Narrative Structure	William Sydney Porter (O'Henry)	White	White
Hope	6-8	Tone & Mood Conflict & Theme	Emily Dickinson	White	White
The Outsiders	6-8	Theme	S.E. Hinton	White	White Informational Text
Losing is Good	6-8	Argument Analysis & Evaluation of 2 Texts	Ashley Merryman	White	Dog and White family
A Dog's Purpose	6-8	Analysis & Evaluation of 2 Texts	W. Bruce Cameron	White	White
Hatchet 3	6-8	Analysis & Evaluation of 2 Texts	Gary Paulson	White	White
JFK Moon Speech	6-8	Analysis & Evaluation of 2 Texts	John F. Kennedy	White	NA
JFK Apollo	6-8	Analysis & Evaluation of 2 Texts	John F. Kennedy	White	NA
All Summer in a Day (part 1 and 2)	6-8	Evaluation of 2 Texts	Ray Bradbury	White	White

From Feet to Wheels	6-8	Compare & Contrast	NA (Informational text excerpt)	NA	NA
Cost of Freedom	6-8	Compare & Contrast	NA (Informational text excerpt)	NA	NA
No Limits	6-8	Argument	NA (Informational text excerpt)	NA	NA
Later Start Time	6-8	Argument	NA (Informational text excerpt)	NA	NA
Postal Pack	6-8	Compare & Contrast	NA (Informational text excerpt)	NA	NA
Longer Day	6-8	Argument	NA (Informational text excerpt)	NA	NA
Civic Responsibility	6-8	Informational Text & Summary	NA (Informational text excerpt)	NA	NA
Marvels of Construction	6-8	Informational Text & Summary Analysis & Evaluation of 2	NA (Informational text excerpt)	NA	NA
Artwork	6-8	Texts Analysis & Evaluation of 2	NA (artwork)	NA	NA
Monsters	6-8	Texts	NA (artwork)	NA	NA

Of the 15 author identified texts, 11 are written by white authors. Lexia includes poetry, fiction, informational text, and artwork. Of the 3 poets, 1 identifies as Black, 1 as Chicano, and 1 as white. Of the 7 fiction authors, all are white as are their protagonists. Of the informational texts provided, 3 identify as white, 1 as Pakistani, and 8 are unknown or uncredited texts.

Unlike Summit, when students are reading with Lexia, they read completely on their own. Students may be reading different texts at different times depending on the skill they have decided to focus on. This means that students may encounter images or stereotypes within texts on their own without critical questioning or guidance. For example, the story Jaye read with Lexia, *The Dinner Party* by Mona Gardner, is set in

India in the early 1900s. Indian boys and girls work for and serve the main characters, a British woman and her husband, a British Colonial Officer. Neither the comprehension questions nor the story introduction video, prepare students to critically question the power dynamics or history of the story. As noted earlier in the findings, even when texts are read as a whole class, there is no discussion of issues related to diversity and social justice.

There were numerous instances in which Mr. P disregarded issues of social justice within the reading of *The House of the Scorpion*, potential issues of social justice within the local community, and responses to students regarding accents in the play version of *The Diary of Anne Frank*; thereby, negating the contextual connection between students, the texts, and the world. From the moment *The House of the Scorpion* began in class with a description of the protagonist, a Mexican clone, being called an *It* or *filthy clone*, to Aztlan, formerly known as Mexico, being a communist state operated as a prison work camp with a bad economy, Mr. P never once stopped the audio to explore historical connections nor perceptions or to question the author's purpose in sharing such imagery. When David shared his feelings about the text and identifying with the protagonist as a "soulless Mexican," Mr. P ignored him claiming to me, "There is no time for questioning. We have a pace we need to follow or the Learning Director will note it in my review." Mr. P also shared "I haven't taken any credential courses yet so I don't really understand what it means to ask critical questions with curriculum." In other words, not only did Mr. P admit he was not pedagogically prepared, but he was also not aware of how one can critically question texts, a needed skill and understanding for English teachers. Without

such questioning in the classroom, students hold on to and recreate negative racialized narratives.

Lack of Personalization

Summit and Lexia are marketed as personalized learning platforms. According to the Lexia Power Up Literacy brochure, Lexia provides,

- Personalized and scalable implementation
- An unparalleled level of personalization and adaptive instruction enables students to progress at their own pace
- Personalized learning paths
- Personalized goals
- Personalization for districts and school partnerships (Lexia Learning, 2020).

Summit Learning provides their mission as: “Summit Learning is a personalized approach to teaching and learning inspired by our mission to help every student lead a fulfilled life” (Summitlearning.org, 2020). Neither website clarifies what is meant by the term personalization. PL Tech Academy uses Lexia as a supplemental learning platform to provide additional “testing support.” According to Mr. P., during Learning Lab time students are to work on Lexia. Students choose what to do on the platform. While the teacher can retrieve data from Lexia for each student, neither he nor the Curriculum Director have time to look at the data as the data from Summit is prolific and forefronted in one-on-one student meetings. Summit is used as the main conveyor of curriculum and pedagogy. Students do not have choice with pacing as the blue line determines what needs to be completed by what date. They can choose which skill to work on within a

specified time frame; however, all focus skill areas need to be completed. Students do get to choose if they study for the focus area assessments or not. While both platforms claim personalization, the focus is solely based upon choice. In Lexia students choose what skill to work on and on Summit students choose what additional learning to complete prior to an assessment. Students, seeking to personalize their learning space and experience, tend to demonstrate personalization via fashion and deliberate actions.

Apollo, who claimed to want to read, often simply turned on a screen reader for a longer piece of text and listened via headphones. He, like Jaye, implemented choice in learning activities by checking the blue line on Summit a minimum of four times within an hour. He also chose to personalize his school experience through his clothes. He refused to tie his tennis shoes, wore his collar up, and pegged his pant legs' cuffs. Rather than wear the uniform pants, he would wear pressed jeans and even placed a sticker on his school computer. A defiant move as it disrespected the school property while claiming it for his own. To beat the system, he was trying to complete all the seventh-grade material on Summit before the end of the school year. Apollo shared,

There is a student who has done it. If I can finish seventh grade, I can start on the eighth grade. The only problem is they don't have ninth-grade curriculum yet.

Nikki G shared that she hated the uniform and started wearing her hair differently each week as a way to personalize her experience.

My mom used to braid it ALL the time when I was in elementary. Now I do something different each week...one time the Director said my hair was a distraction. My mom talked to her and she hasn't said anything since.

Nikki G not only pushes back against this aspect of school, but she also attends a writing club after school. The writing club was not an offering created by the director and the curriculum focuses on spoken word poetry outside of the Summit Learning Platform. Writing and performance are connected to the community and context of the students' lives, unlike Summit and Lexia. Nikki G loves writing, but not on Summit. She gives the minimum required to pass during class and gives her reading and writing energy to the club.

The students recognize that they all take the same assessments and complete the same activities in either platform; defeating the purpose of personalization. In a class conversation recorded between Jaye and Apollo,

- Jaye: I passed that focus area already.
- Apollo: Yeah, I haven't looked at it yet. Is it hard?
- Jaye: It was for me. But you'll do better than I did. English is easier for you.
- Apollo: Did you do the one on argument?
- Jaye: Yeah. I scored 80%. (Jaye looks at Apollo's screen). You got 100%.
- Apollo: You could retake it if you want. I'll help you get 100%. I remember all the answers.

Not only do students all take the same assessments, but they also read the same texts, and participate in the same class activities. By not defining personalization, both platforms are able to hide behind the term while fostering individualization.

Micro Zoom: Reading into the Silence

Pamphilion (1990) shares that at the micro-zoom level, the researcher focuses on the orality of the interviews and observations. Such focus includes giving attention to the moments of silence, expression, and emotions. At this level of analysis, as I compared the orality of the transcripts to my notes about body language and topic, I noticed a pattern of linguistic incongruence, a term used to explain when participants do not have the language to explain their experiences because they did not create the language (Devault, 1990). The students did not create the terminology regarding their experiences with platform learning, so they could not find any other words to describe their experiences beyond those modeled by the system. When offered opportunities to consider how literacy and tests impacted them, the participants had no words to explain their thoughts. This lack of language to explain or describe a phenomenon manifested on several occasions, such as when I asked participants in the focus group interview if school should be more than testing. When asked if school should be more, participants were unable to describe what else school could possibly provide.

The other pattern I noted within the transcriptions is the number of times participants whispered when they shared negative experiences with the platform and the robotic and mechanical tone used to describe their learning processes on the platform. The change in voice intonation included the teachers' requests to hold interviews off-campus. Even when interviewing off-campus, Mr. P, the reading specialist, and the special education instructor would lean close and whisper when speaking negatively of the platform. Almost as if they were afraid someone nearby would hear them.

Interactional Zoom: My Role in the Noise

At the interactional level of analysis, the researcher examines the transactions between self and participants and personal reactions to participants during interviews (Pamphilion, 1999). In my study, this included incidences during classroom observations. Pamphilion (1999) noted that since interviews are transactions between a participant and a researcher, each with their own identities, experiences, and knowledge, what one researcher gathers in an interview may differ from what another researcher gathers. Brinkmann and Kvale (2015) also noted that interviews are active processes, producing knowledge between participants. In other words, interviews are meaning-making endeavors. Therefore, beyond understanding her role within the interview process, the researcher must also understand how she has positioned the interviewees within the relationship (Brinkmann & Kvale, 2015). In this section, I attempt to share how my transactions and reactions impacted the interviews and observations.

Transactions

In this project, I wonder if student participants would have been as willing to share their middle school experiences had I not responded to their questions about my own literacy and reading journeys. Two examples of this are when Apollo asked about attending college and when I shared my childhood speech impediment of a lisp with Jorge to help him feel comfortable with stuttering.

Positioning interviewees as informants, or people with specialized knowledge (Brinkmann & Kvale, 2015), about using a personalized technology platform to gain literacy knowledge, one could argue this impacted the information participants opted to share. I argue that by positioning students as members or informants within the

relationship, middle school participants were more able to demonstrate agency rather than vulnerabilities supporting an asset view in my portraits of the students.

Reactions

Examining my reactions in the transcribed interviews and in my analytical notes forces me to question my “values, stereotypes, and truths” (Pamphilon, 1999, pg. 407). To become an ethical researcher, Brinkmann and Kvale (2015) wrote that researchers must consider the consequences of the process and the role of self. One way to accomplish this is through thick description of the contextualizing and narrativizing (Brinkmann & Kvale, 2015). However, Benjamin (2019) and Fanon (2008) cautioned that thick description may lead to overexposure, a form of oppression, and continued stereotypes and vulnerabilities especially for students of color. For these purposes, it was imperative to iteratively reflect upon my reactions prior to constructing case studies and findings.

During reading time in class, my reactions were either shock or frustration. I was shocked that a teacher would rely upon technology to provide the teaching or I was shocked at how the teacher verbally and physically responded to students. For example, the teacher opted to do nothing when David mentioned seeing a person get shot and then days later squirting a ketchup packet on his stomach and announcing to the class he had been shot, only to then fall on the floor in the middle of the classroom and lie silent for more than five minutes. The teacher did not stop the audiobook, did not request for David to return to his seat. Nothing. Later the teacher shared he was relieved to have the five minutes of silence. As the story played in both sections of the eighth-grade classroom, not once did the teacher stop the audio to discuss the trauma in the story or allow students to

connect and reflect upon their connections to the story. Reflecting on these reactions led me back to the literature about the needs of content and pedagogical content teachers must have in order to teach. In this way, I could then analyze the interviews and observations with less judgement.

I also found myself angry at times regarding the interactions between the teacher, students, and the platform. During one observation, after sitting with students and listening to the audio for ninety minutes in which there was never discussion about what had been read or listed to, the teacher read from his screen, “You are being tested on cognitive skills such as can you sit and have conversations about books without the aid of a teacher. For today, your checkpoints are cognitive checkpoints.” In moments such as that I was angered by the lack of connections around what the platform was suggesting, such as having a conversation only to then have the students type responses onto a Socratic worksheet without any conversation. Further reflection upon my notes led me to understand that these moments, initially identified as anger, were in fact sadness for the learning experiences students were experiencing.

A reaction that is also apparent in my notes and even within the interviews is surprise. When Jaye shared she wrestled, I was audibly surprised. I paused in the interview, gathered my thoughts, and asked her if she was on a team and what was her weight category. Upon initial listening this may sound like a way to connect with the participant, which it did; however, it was my way to recover from realizing the petite, initially shy and quiet student was in fact powerful and wry.

Through analyzing my emotions and reactions I admit to my own subjectivities within this research. These truths offer me and others an opportunity to enter into discourse around points of difference and authenticity of the research findings.

Conclusion

I began this chapter surrounded by silence and books. I end this chapter in the same space. However, I find myself in a more contemplative mood. When the chapter began, I was locked within the noise of the site via the audio recordings of the interviews and notes in my journal about the level of sound. I was jealous of the students when they put their headphones on to avoid the noise and focus. However, as I come to the end of this chapter, I realize I do not necessarily detest the literal noise. Rather, I am saddened by the metaphorical noise of hegemonic narratives allowed to continue. In getting to know the students as strong, intelligent, creative, and hardworking people, I am left hoping they have the opportunity to experience literacy learning in a culturally sensitive manner. I am also writing this conclusion knowing the students are now secluded in their homes, working on their checkpoints, with no human interactions beyond their immediate families. If the platform is allowed to perpetrate traumas via text selection and pedagogical practices within the students' homes, how are those students faring at this moment in time? In the next chapter, I will discuss my findings and share potential implications for educational leaders, teacher education programs, and curriculum designers.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Throughout this study I have sought to share the experiences of students using personalized learning technology in their literacy classes. My intention was to explore the lived experiences of middle school students using the technology as a way to highlight cultural and or structural arrangements that influenced literacy achievement for a diverse group of students. Previous research in this area has solely focused on achievement via standardized scores reducing literacy practices to nothing more than mere numbers (Robbins, 2005). Additionally, such reports of achievement have been unable to demonstrate if students are empowered as critically literate citizens. As this study shows, both cultural and structural arrangements do impact literacy learning as well as the development of student relationships regarding beliefs about learning.

In chapter 4, I employed zoom analysis to best analyze the multiple sources of data collected over the span of the study. Within the macro, meso, and microanalysis levels, a total of 6 findings were presented. These findings, presented in this chapter with limitations of the research, answer the research questions of how one PL technology platform influences literacy learning, what skills and knowledge are developed via such a platform, and what social and structural factors within the classroom and school impacted literacy learning within one PL tech environment.

The Race to the Top District grant funding, which called for acculturation of immigrant and refugee children, supported both educational technology companies and school districts to create and implement platforms supporting and reproducing the status quo within classrooms as demonstrated in the discussion below. PL tech negates the

social and cultural practices associated with best practices in literacy learning and places a heavy emphasis on the assessment of skills as a demonstration of knowledge. Further, by forefronting the platform as the gatekeeper of knowledge, the instructor role is weakened as evidenced by the learning environment described here. It was thought that the platform could act as holder of both content and pedagogical knowledge leaving the teacher to focus solely on behavior management. In what follows I provide discussion of the findings from Chapter 4. The section is organized to illustrate how PL tech privileges one form of knowledge and how educational inequities are built into the system.

Efficiency Replaces Collaborative Practices

Students claimed to be efficient readers and learners because of the use of PL technology. This efficiency led to perceptions of urgency, or the need to complete assignments quickly per the platform deadlines, and stress for both the students and teachers. Students' sense of efficiency included being able to keep pace with the program and the ability to work alone to quickly find answers to multiple choice questions; thereby, privileging one form of knowing – individual quick responses. Quick responses were rewarded by the system and if students completed the work before the end of the day, they could then have time to converse with peers; however, there was no time to converse with peers during learning time or reading time. The Gates Foundation's call for PL tech privileges individual mastery of learning (Patrick et al., 2013) yet, according to previous research, focus on individual mastery using PL tech leads to problems of epistemology (Au, 2009; Benjamin, 2019; Lea, 2014; Foucault, 1995) and pedagogy within literacy learning (Muhammad, 2020; Robbins, 2005; Shannon & Shannon, 2001). Hidden within the notion of individual mastery and efficiency is the lack of communal,

co-constructed learning opportunities. Literacy is a communal and collaborative practice (Freire, 1973; Moll et al., 1992; Muhammad, 2020). Rueda (2011) claims that a positive attitude regarding literacy cannot be built if cultural practices and norms, like communal learning, are ignored.

As noted in the findings, practices associated with passing the focused literacy areas on Summit in a timely manner did not allow for any communal learning practice or enjoyment of reading. Darder (2017) claims that without communal learning, the classroom becomes a “utilitarian” (p. 100) space in which students are independent of each other. One of the students in this study, Nikki G, felt the need for community and was able to find a community in her writing club after school where students learned how to write and perform spoken word poetry, a highly communal practice with historical roots in the Black community. Other students were not as fortunate.

The absence of collaborative pedagogies and communal epistemologies may lead to a lack of reading enjoyment (Rueda, 2011). This creates a tension for teachers within California using PL technology as the California Common Core reading standards call for “attentive reading that is at the heart of understanding and enjoying complex works of literature” (CDE, 2013, pp. 2-3).

The tension between standards, teaching practice, and policy is not a new phenomenon. As noted in Chapter 3, Au (2004) asserts that students who are tracked into low level literacy courses are denied collaborative literacy learning opportunities; suggesting that personalized learning technology, like many curriculum policies prior, maintains a system of coded inequities. As Benjamin (2019) asserts, the New Jim Code, or coded inequities within technology platforms, places instances of individual efficiency

over communal forms of knowing and learning and is designed to mass produce behaviors as industrious. In other words, learning becomes a transactional process in which the goal is to complete tasks and gain basic skills rather than build a meaningful relationship with learning. In this way, issues of equity can be hidden or forgotten in the urgency to push students to complete a designated amount of work. This was observed on multiple occasions in the classroom when the teacher would ignore opportunities to critically question or discuss issues of social justice in the classroom in favor of keeping pace with Summit's blue-line measurement of accomplishment.

Problems of pedagogy are also hidden within the standard of efficiency in individualized classrooms or programs. This practice goes against research that suggests building, growing, and sustaining literacy over a lifetime and dialogic processes are best practice (Bomer & Bomer, 2001; Stachowiak, 2016). Dialogic processes support building relationships between students and between the teacher and students (Darder, 2017). Dialogic processes require quality time for readers to interpret, grow, connect meaning, build perspective, and build empathy (Wolf, 2018). Empathy building occurs when students learn to listen and connect one text with others and develop a democratic awareness of various perspectives (Bomer & Bomer, 2011; Wolf, 2018). Without dialogic processes, pedagogical practices in literacy classrooms leans towards didactic questioning techniques (Darder, 2017) and passive engagement with text (Stachowiak, 2016). Didactic questioning becomes a tool for efficiency as time is not needed for deeper connecting, and, as the research suggests, it is at the sacrifice of critical thinking. Didactic questioning was observed within both the Summit and Lexia platforms as students in this study responded to multiple choice questions about reading selections. At

no time were critical, dialogic processes regarding whole class readings observed during the research.

An emphasis on efficiency can also lead to stress, as noted by both the students and the teacher. In a study of students in a personalized learning classroom, Basham et al. (2016) found that when students need to make quick decisions about their learning, they must possess a high sense of self-regulation. On multiple occasions in the classroom, students misbehaved, toggled between tabs on their screens, used the restroom multiple times, or simply turned and talked to peers about situations other than the learning in front of them. The tension between the wasted time of not knowing how to respond to an assessment question, and the urgency of meeting the Summit blue line was mentioned multiple times.

Efficiency was the terminology used by the Summit Learning platform to describe the learning process. It influenced not only the literacy learning within the classroom but the culture of the classroom as well. This research confirms that the stress and the efficiency of platform literacy learning is not supportive of what previous research has found to be conducive to sustaining lifelong literacy practices (Bomer & Bomer, 2001; Muhammad, 2020; Puzio & Colby, 2013; Wolf, 2018). Instead, students would have been better served if they had been able to engage in critical thinking and more dialogic practices—practices that have been shown to correlate to greater health (OECD, 2013; Ross & VanWilligen, 1997; Willms, 2003), wealth (Bradshaw, 2004; Greiener et al., 2008; OECD, 2013; Willms, 2003), and liberation as well as to lower rates of incarceration (NEA, 2007), voting (NEA, 2007), and to a greater sense of empathy,

evidenced by increased involvement in community service such as volunteering and voting (NEA, 2007; Wolf, 2018).

Technology as the English Teacher

Both students and the teacher routinely turned to the Summit Learning platform to guide the learning in the class. Students shared that the teacher was present to mentor them through the program as well as for managing behaviors. The teacher confirmed the students' statements in both interviews and observations. However, merely managing students through the learning meant that Mr. P handed over all learning and pacing to the learning program such as, text selection, curriculum pacing, and writing instruction. This was problematic as noted on several of the occasions I observed in the classroom. For example, not having the ability to pre-read and pre-select texts for whole class reading meant Mr. P had to rely upon the platform for all curriculum activities.

The lack of teacher preparation also undermined Mr. P's ability to engage students within learning and to manage various aspects of the classroom. The instructor noted that he often did not know how to manage situations or potential class discussions as he held neither a degree in English nor a credential. At the time of this study, he had not completed any credentialing coursework as he was considering if teaching would become his lifelong profession. Experienced teachers are able to maintain a comprehensive understanding of the classroom; therefore, they are better able to manage both decision making processes for classroom management and learning outcomes (Westerman, 1991). Novice teachers are likely to have a narrower scope of understanding of the classroom and more likely to simply focus on only learning outcomes associated with school provided curriculum (Westerman, 1991). Darling-Hammond (2010), in

analyzing inequity in schools, notes that low-income minoritized students receive fewer supports in schools such as experienced, credentialed teachers. Teachers affect student learning (Darling-Hammond, 2006) and teaching is a complex profession (Lampert, 2001). Handing over the job of teaching to a computer program because the platform provides all student resources as well as all lesson plans including scripted passages of instructions for each day, flies in the face of the expectations held for credentialed teachers. The more complex decision-making skills credentialed teachers are trained to engage in to support student learning, such as being able to formatively assess and immediately adapt to student needs in the moment while still meeting objectives is critical (Westerman, 1991) yet, in this study neither the teacher nor the platform were able to achieve such complexity of teacher practice.

Lampert's (2001) research provides 4 elements of complexity within teaching that support learning: 1) it is never routine, 2) it has multiple goals, 3) it is done in relationship to diverse students, and 4) it requires multiple forms of knowledge. While the learning platform may provide resources to meet multiple learning goals, the platform only provides routinely structured lessons, a form of standardization which supports maintaining the status quo and building efficiency as a mindset for future places of low-level work (Foucault, 1995: Lea, 2014). Exemplary teacher education programs prepare teachers to build cross cultural experiences, hold both pedagogical and content knowledge, educate for equity, support students with varying abilities, and how to juggle the day-to-day changes in a classroom (Darling-Hammond, 2006). Exemplary teachers also know about different learning theories, developmentally appropriate practices,

language development, curriculum development, and a variety of assessment techniques (Darling-Hammond & Bransford, 2005).

As English is a core requirement for secondary education, inserting an uncredentialed teacher into the middle school English classroom is a travesty for the students. Not only was the teacher unprepared to manage content, but he was also unable to respond to issues of equity, support students with IEPs and 504s, and support emerging bilingual students. Rather, he allowed for systemic issues of racism evident in the content of the instructional material to go unchecked. The literature selections and raciolinguistic notions of language development, both discussed in succeeding findings, coupled with the teacher's inexperience, lack of credentialing as an English teacher, and the support of the school's director for maintaining hegemonic narratives undermined teaching and learning for the students in this study.

Testing Replaces Identity Development

In listening to and observing students, the focus area assessments on the Summit Learning platform were an important aspect of the daily routine. While Summit markets its program as having projects to meet the needs of a diverse student population, the projects do not truly represent project-based learning. Project-based learning (PBL), according to the Buck Institute for Education (a leader in PBL) is a pedagogy which promotes students actively engaging in providing solutions to real world problems or complex questions (Buck Institute for Education, n.d.). According to PBL Works (n.d.), there are 7 essential design elements to include within a project: the teacher poses a challenging problem or question; maintains sustained inquiry over time; engages students with authentic contexts; privileges student voice and choice; includes reflection, critique

and revision; and creates a public product. Wilder (2015) in a systematic review of the literature regarding PBL, found that PBL supported learning outside the content area such as communication, collaboration, and critical thinking. However, the projects provided within Summit Learning failed to meet the PBLWorks design elements and the needed collaboration skills to work on a project.

In contrast, the Summit Learning projects included a class reading that was proscribed and scripted. The text chosen was deemed appropriate by the school site (such as the play version of *The Diary of Anne Frank* and *The House of the Scorpion*).

Expectations for written responses to the reading, and reading assessments were predetermined. In addition to the reading, focus area assessments were completed by students. The assessments presented within Summit and Lexia appear to have a sense of impartiality, one of the four dimensions of the New Jim Code (Benjamin, 2019).

Impartiality is the appearance of rising above human subjectivity. As long as students are able to access their resources, extract information from the text, and pass the tests, they pass the class. As students practice more assessments, what they learn is that analysis and criticality are not needed abilities to succeed. Delpit (1995) notes that this form of learning teaches students to function as cogs in the machine of a dominant society.

Gutierrez (2001) and Moll (2000) add that when assessments measure nothing more than discrete skills, students lose out on developing complex literacy abilities as well as lose the ability to associate literacy with context and cultural artifacts, negating the social practices of literacies; thereby, losing out on learning about themselves. When the social practices of literacy are lost through inauthentic assessment practices, students are left feeling invisible, as noted by Jaye in the focus group interview when she said, “But it’s

about the test now. Like we're invisible to the computer. It can't see who we are and what we like." Furthermore, PL tech supports the power mechanism of regulation. Regulation occurs when students are rewarded for their behaviors (Foucault, 1995). When students earn a green passing signal on their Summit dashboard, they learn that passing an assessment is a privileged form of knowledge further moving them into accepting a standardized highly monitored work environment, arguably not the environment that is reflective of today's workplace that demands collaborative problem solving, critical thinking and the ability to take multiple perspectives into account.

Literacy as Disparate Skills

In Chapter 2 of this study, I wrote that literacy is more than a set of independent skills. Literacy is reflection (Banks, 2003), connectedness (Hunsberger, 2001), and liberation (Banks, 2003; Freire, 1970). Muhammad (2020) shares that literacy combines skills with learning about self and freedom. Furthering her own argument, Muhammad (2020) claims that modern literacy instruction needs to include literacy as cognitive skills of reading, writing, and speaking coupled with Criticality, or the ability to question power structures.

Summit Learning provides a heavy focus on literacy as disparate skills. Cognitive skills are separated from reading and grammar skills. Students did not need to spend much time on focus areas as they could search the Internet for the answers to the 10 question assessments as evidenced by MJ, Jaye, and Apollo. Speaking is not included in any skill set which can be assessed online. The skill sets do not always align to or support the whole class textual readings. At no time were the skills connected to the context of the students' lives. In a classroom in which a teacher has the ability to control and create

curriculum, teachers can consider students' interests and funds of knowledge to support in-class instruction. In this study, evidence of students' outside interests such as reading, writing poetry, wrestling, and a desire to play music did not align to the skills and texts presented by the platform.

Within the Summit Learning platform, critical reading, such as reading to determine a theme and identifying supportive evidence, is an objective and a focus area on which students are assessed via 10 multiple choice questions, and not via writing. As noted in Chapter 2 of this study, Burbles and Berk (1999) share that critical reading is a Eurocentric skills-based action in which logic and evidence are sought and can be assessed. Critical reading and analysis are not the same as Criticality. Criticality is the teaching that encourages students to question power structures and counter inequitable practices (Muhammad, 2020). Literacy as Criticality requires teaching students to identify inequities and to question texts, authors, and the power structures presented within a narrative while using critical thinking skills of using evidence; however, evidence may come from both the text and lived experiences thereby creating a deeper connection to textual reading and understanding as readers make text-to-self connections (Darvin, 2018). This is not easy to assess in a literacy classroom with a focus on learning from a technology platform such as Summit Learning as Criticality requires participation in class discussions with opportunities for various perspectives to be voiced. This is a missing practice in the classroom observed for this study. As the pacing of assessments is determined by the platform and not the teacher, there is no time to hold challenging discussions about texts. This means there is no time to teach students how to have these types of challenging conversations or to reflect upon their understandings of the world.

This practice may lead to an eventual decline in civic engagement, as higher rates of literacy are associated with community involvement (NEA, 2007; OECD, 2013).

A lack of Criticality in the literacy classroom allows for dominant discourses to exist, and in this study, it was one of the many missing components of best literacy practices which supported the instances of nuanced racism as evidence within the classroom.

Coded Inequities: It's Just the Way It Is

Benjamin (2019), relying upon the work of Fanon (2008) and Foucault (1995) argues that technology serves as a tool for white supremacy as it is a set of algorithms constructed by predominately white people, privileging one interpretation of the world. Coded inequity within the Summit Learning platform modifies and rewards specific newly gained behaviors, as evidenced by the assessment practices offered by Summit. It rewards behaviors for not questioning text selections, as demonstrated by the pacing provided by Summit and lack of teacher designed discussion questions during the reading of class texts. Furthering the idea of coded inequities within this study was the strategy of rewarding individualization. Students did not participate in or gain knowledge in how to engage in discourse practices that would support the development of literacy practices regarding either fictional or informational reading selections. A focus on individualization siloed students into their own learning pathway without communal supports or co-constructed learning opportunities. This practice was also observed and supported by the ahistorical literacy practices. Sets of skills were taught but not connected to culture, context, funds of knowledge, or language. Inequities were further deepened and standardized when a non-credentialed teacher with no content knowledge

managed the system and the learning for class. While Summit is a program created by people, no one from Summit Learning appears to have spent time questioning the text selections or the pedagogy used.

As noted in the findings and further explored in the next section, administration at the site maintained a blind eye to potential inequities due to their own positionality and drive to grow the site; a positionality that privileged the background of a Christian woman and daughter of a prominent reverend in town. The school director determined that one of the potential texts offered by Summit Learning would not be introduced to the students as it had the potential to spread ideas of atheism. The units offered by Summit Learning, which contained texts written by insiders of the culture promoted in the book were not offered at the school. Students did not have access to texts on site such as a school library. The teacher explained they could not afford to purchase class sets, as the site was already working with the Zuckerberg Foundation to sell buildings at the site to support paying for a high school location and the director did not want to request funding for texts or any additional supplies. In striving to control the agenda for students, the teacher, and the site director were enacting what Foucault (1995) would call the power of distribution. Lea (2014) explains that on school sites distribution as a power mechanism is observed when leaders work to exclude students from certain experiences while controlling and dominating the agenda of the site. Students and teachers are not given choice or agency. The director, using her positionality and perceived needs, maintained inequity through the power of distributing which texts could enter the classroom.

Students need to see themselves and their experiences reflected in the texts they read. Not only should students learn how to select reading for themselves (Worthy,

Mormman, & Turner, 1999), students need to read from a wide array of culturally diverse authors (Banks, 1993) written by cultural insiders (Brickmore et al., 2017). As noted in the findings, *The House of the Scorpion* is written by a cultural outsider and does not provide positive depictions of Mexican people therefore reinforcing and institutionalizing a negative belief system about Mexicans. This was evident when Jorge spoke of his interpretation of the book, *House of the Scorpion*. He explained that the book describes Mexicans as drug lords and drug users and claims that the story is “just the way it is” meaning that the dominant narrative shared about Mexicans is a story he has learned to accept and live with regularly. While Jorge shares that the book won’t happen exactly as it is written, he is aware that no one, including the teacher, are critically questioning the narrative that is shared by the text. Without a teacher to guide critical examination, students using the technology platform are not encouraged to question or interact with the text beyond the assignments posed via the platform.

Such generalizations within literature of groups of people lead students to see themselves negatively and may cause them to act out (Hunsberger, 2007). This was observed on numerous occasions in the classroom. In one instance while students listened to the text *House of the Scorpion*, David, an eighth grader who identified as Mexican, threw his note taking sheet across the room and stated, “That’s me, a soulless Mexican. I’m going to wander purgatory for eternity” and proceeded to slowly mope around the room with his shoulders slumped down as if acting out purgatory. During passages which included violence, David would note he knew people who had been shot, only to be dismissed by the teacher and told to be quiet. In response, David would get up and dance in the middle of class or act out a fight scene. The teacher responded by passing out

candy to students who behaved according to his rules and punishing those who did not. On the days David acted out, he was denied a class snack and break time. At no time did the teacher stop the text to question students or to check in with how students were managing the trauma of the book in connection to their personal lives; thereby, not seeing the students beyond bodies in the classroom to be managed. Fanon (2008) calls this the *epidermalization of inferiority* as students are seen, but not seen simultaneously. In this example, David is being taught to ignore who he is and what he has experienced in life, as the teacher ignores the importance of offering a critical perspective to the representation of Mexicans. The teacher focuses instead on student behavior and rewarding silence instead of attending to the perpetuation of racist academic content.

PL Tech Lacks Personalization

Personalized learning, which includes an emphasis on student to teacher relationships and promotes student agency that is, by giving students some choice of what is learned and when it is learned, is essential according to previous research (Basham et al., 2016; Darling-Hammond, 2010; Patrick et al., 2016). Personalized learning should be equity based so that all students succeed (Darling-Hammond, 2010). As PL technology was advocated for in the Race to the Top District grant competition, it called for acculturation and increasing both math and literacy assessment scores. The platforms created to meet the call for Title I schools however focused on standardization rather than student agency and meeting the needs of a multicultural student body. This form of personalized learning offered by PL technology does not work to offer students choice in what is learned and when it is learned, rather it works to be personalized for the sites implementing PL tech. While sites are given the freedom to decide which texts to

include, which projects to focus on, and which aspects of the program to implement, in this situation students are not the ones making decisions about their learning; therefore, PL technology in this study does not disrupt the standardized one size fits all model of schooling Darling-Hammond (2010) claimed personalized learning could accomplish. Personalized learning is one that first focuses on equity so that every student may succeed (Darling-Hammond, 2010; Patrick et al., 2016). Darling Hammond (2010), Patrick et. al. (2016), and Basham et. al. (2016) further the definition of personalized learning to include teaching that promotes student agency, provides students choice on when, how, and what they learn, and fosters independence from a larger system (Illich, 1971).

In contrast to personalized learning as described by Darling-Hammond (2010), the platform implemented in this study focused on supporting learning as a transaction. When learning becomes nothing more than a transaction, educational inequities are maintained and students do not have agency. One must ask who is at the center of the educational experience in this situation? If personalized learning is designed for the school site and curriculum leaders, who receive the curriculum free of cost, and the focus of learning is not geared at creating a stronger, literate society prepared to question, what is the role of the students within this form of personalized learning? While I am left with these larger questions, I am also reminded of the limitations of the study I have presented.

Limitations

The goal and the purpose of this study was never intended to be generalized to other schools or educational settings. The findings from this research should be interpreted in light of 5 specific limitations. First, the data were collected at one charter school in a high poverty neighborhood and district. It is possible that in a non-charter

school or in an affluent district, findings might be different from those discussed here; however, personalized learning technology is more often adopted by Title I schools and districts and may not exist within affluent schools. This is an area of study that needs to be examined more closely as the reform movement of personalized learning technology may create further divides across educational settings. Second, the platforms examined in this study were limited to two: Summit Learning and Lexia. There are numerous platforms available and the list only continues to grow. It is possible that other platforms are finding ways to support richer literacy learning. Additionally, this study was focused on one middle school classroom with an uncredentialed teacher. While personalized learning technology promises the role of the teacher will transform into mentor, it is possible that a credentialed, experienced teacher may influence the learning context differently than the teacher in this study. This study used a critical framework to analyze the literacy learning of students using personalized learning technology. A different lens or focus for analysis, for example, using students' learning outcomes, would not likely expose the construction of teaching and learning described here. Finally, this study focused on gaining and sharing the voices of the students and not teachers or administration, both of whom have different understandings of literacy learning. While teachers and administration were interviewed to confirm or disconfirm evidence gathered, a deeper investigation into their experiences with PL technology was not sought.

Implications for the Field

As research on personalized learning technology is a nascent field and the number and options of platforms are expanding, there are implications from this study for the

field of education and future research. Here I provide potential implications and considerations for state and federal policy makers, state level literacy leaders, and school district leaders. The section concludes with a call for continued and expanded research on this topic.

State and Federal Educational Policies

While the purpose of education is not clearly defined at either a state or federal level, there is an obvious tension between the two which needs clarification. A goal of the Race to the Top District Grant was acculturation of immigrants and refugees especially regarding literacy and language learning. As California has one of the highest immigration rates in the United States, state policy regarding language has recently shifted away from forms of language acculturation to bilingual and dual language learning education. Numerous researchers (e.g., Anstrom et al., 2010; Cadiero-Kaplan & Rodriguez, 2008) claim that K-12 teachers are not prepared to teach emerging multi-lingual students or prepared to implement culturally relevant pedagogies. If personalized learning platforms do not offer or focus on supporting emerging multi-lingual students through the use of culturally relevant pedagogies and teacher education programs do not properly prepare teachers to work with a multicultural student population (Henry & Tator, 2005; Gorski, 2009; McGarry, 2008), a continued disconnect in learning and achievement will continue within the state.

As noted, PL technology is implemented in Title I schools. Title I schools have higher concentrations of poverty, greater numbers of English language learners, and greater numbers of marginalized students (Haxton et. al., 2012). Additionally, Title I schools often have higher per pupil expenditures (Haxton et. al., 2012). Darling-

Hammond (2010) discovered these schools often lack resources such as computers, curriculum, and credentialed teachers – all issues observed in this study – and all issues related to reproducing inequitable learning situations. To resolve the issue of being able to afford curriculum and computers, the charter school studied here opted to accept a partnership with Summit Learning, a project of the Zuckerberg Foundation. Through this partnership, free curriculum, teacher training on the platform, and computer access were granted to the school. Additionally, The Race to the Top Grant specifically called for personalized learning technology to be implemented in Title I schools. The grant relied upon research from the Bill and Melinda Gates Foundation. The connections amongst technology giants, educational policy, and learning cannot be disregarded. Such partnerships are determining and defining the purpose of education for some students, but not all students. Through these partnerships, corporations are also redefining the role of the educator within the classroom.

Given the platform implemented at the site for this study, the teacher no longer focuses on creating curriculum, setting pacing of learning, or modifying curriculum to meet the needs of all students. Rather, the platform is marketed as an entire curriculum and teaching package in which the teacher oversees data, facilitates student access to the assessments, and provides behavior management in the classroom space. Hattie (2003) and Oppen (2019) provide evidence that experienced teachers are the number one influence on student achievement as they have both the needed classroom experience, content knowledge, and pedagogical knowledge to best manage a classroom. With statewide initiatives focused on Universal Designed Learning, trauma informed teaching, social emotional learning, and cultural responsiveness, a disconnect between corporatized

curriculum, federal educational funding, and state educational goals becomes apparent. A closer examination of such partnerships, as those in which corporations are allowed to provide free curriculum to schools within the state, needs to be analyzed and evaluated to determine if what is marketed to the school meets the requirements and goals of education at the state level. Additionally, federal grants for Title I schools should be closely analyzed to determine if learning outcomes and goals align or misalign to state educational goals and initiatives.

The problems with PL technology identified in this study do not imply that all technology in education needs to be disregarded as we live in a society which relies heavily upon technology use, especially within higher paid jobs. However, the technology implemented and used within Title I schools should align to state level learning outcomes and initiatives. This includes high quality hardware and software which allows for the creation of products and participatory forms of learning. Simply stated, the technology used in Title I schools ought to move beyond transactional learning of skills. The PL technology in evidence in this study arguably did not meet the needs of student learning and literacy in ways which would support students' ability to gain access to college and potentially higher paid jobs.

Literacy Leadership at the State Level

At the state level, teachers are mandated to pass subject matter assessments. Literacy is viewed as incredibly important; so much so that K-6 teachers must complete an additional assessment demonstrating knowledge of best practices in the teaching of foundational literacy. At the state level, a team of literacy experts consisting of researchers, veteran teachers, and policy makers meet regularly to discuss standards,

revise expectations, and craft policy regarding the teaching of literacy. This team also assesses the texts introduced at all grades levels within the state.

This study suggests that the state literacy leadership team ought to spend time evaluating the approved reading list for the state of California. Currently, books like *The House of the Scorpion* remain as acceptable choices on the approved reading list for California classrooms. This is not to suggest books be banned, rather books should be prioritized and anchored within the frameworks and standards in California upon which teachers are assessed. For example, the California Standards for Teaching Practice (CSTP) Standard 2 assesses teachers on creating and maintaining effective learning environments for all students (Continuum of Teaching Practice, 2012). This standard has 7 elements of which one is about promoting and developing a classroom in which all members feel safe, protected, and are treated fairly. Supporting text selections which make students feel unseen or promote a negative hegemonic narrative about a race of people is not one which promotes safety and fairness.

Literacy leaders ought to have full access to any technology platforms promoting literacy learning prior to any technology platform being adopted by a district. Much like prioritizing literature within current frameworks and standards, technology platforms out to be evaluated against literacy goals, best practices in literacy teaching, and teacher evaluation standards. This work would then support the district level leadership teams in identifying best programs and platforms to implement.

District Level Curriculum, Assessment, and Technology Leaders

Each school district and county office of education maintains positions for support personnel to evaluate and to assess the curriculum adopted in comparison to the

needs of the students within the district and school context as well as in relation to the learning. Additionally, districts and country offices of education have technology leaders responsible to adopting, implementing, and maintaining technology. Prior to adopting personalized learning technology platforms, both curriculum, assessment, and technology leaders should work together to assess the value of such platforms in relation to the learning goals and needs of the students and surrounding community. Not only should district leaders assess if the platforms support learning for the students, but they should also check to ensure that such platforms use and implement best practices for literacy learning including collaboration, communal knowledge, authentic assessments, and multicultural literature opportunities.

Future Research

To better understand how PL technology is impacting literacy learning, new literacy research needs to occur. One very recent study published through *Educational Research*, focused on using institutional logic and the logic of accountability to analyze personalized learning technology in one school district's math classrooms (Daruwala, Bretas, & Ready, 2021). Tensions with assessments were found, as teachers felt the system offered background knowledge preparation, but not current grade level learning, a lack of personalization, and tension between policy and implementation. This study as well as the findings from this research suggest there are problems with relying upon a platform to deliver learning experiences rather than relying upon highly trained teachers to create and deliver learning experiences. More research is needed on PL technology to better understand the learning science used to inform the development of the various systems. As the purchasing and implementation of platforms grows, educational

researchers will need to begin to study and analyze how learning is impacted by the various platforms to better inform district curriculum leaders. Does literacy continue to be connected to liberation, health, and higher education? In what ways is technology impacting current literacy learning? Additionally, further research needs to be conducted on how PL technology impacts learners beyond middle and high school. Where do students who attend schools which use PL technology go after high school? How are their lives impacted by this way of learning? Further research into why PL technology is implemented in more Title I as compared to non-Title I schools needs further understanding. Why is PL technology seen as a panacea for the future of learning for students in Title I districts and not advocated for schools in general? To what extent if any is it viewed as the most effective pedagogy in schools with affluent students? How does PL technology create, maintain, or eliminate issues of equity?

With the advent of COVID-19 and pandemic teaching in which both students and teachers retreated to their homes to participate in class time, many districts, such as the one I currently work for, are implementing the use of the Cyber High personalized learning platform. Cyber High has all core content areas as well as electives which have been A-G approved through the University of California system. Students move through units and earn a credit for each unit completed. Teachers sit online with students to answer questions and provide support to students who struggle with the platform. In Ohio, school districts give families the option to be fully online with Lincoln Learning Solutions, a personalized learning technology platform, or attend hybrid courses with teachers online. The question remains: how has learning been impacted by these systems?

Concluding Thoughts

One does not set out to complete a qualitative dissertation within a few months as there is needed time for data gathering, analysis, and writing; however, this dissertation has required more additional time than I first thought. The time needed was not for finding a site at which to conduct my study, rather it was for stepping away from the data. While zoom analysis (Pamphillon, 1999) allowed for a deeper understanding of the phenomena, it also required listening to transcripts multiple times and revisiting stories of inequity which were at times unbearable to listen to repeatedly and then to write. Amid analyzing data and writing, I accepted a position within a school district implementing personalized technology. I was able to participate as a user of a PL technology platform from the point of a teacher. I plan to take my teacher journal and compare the findings from this study to my current place of instruction to further educators' learning about PL technology platforms with diverse, Title I students.

During this study, I observed disheartening moments in which students were openly disregarded, oppressed, and controlled. Yet, there were moments of hope in knowing that outside of school, students were finding themselves and dreaming of a future. The need for well trained teachers, who can make sense of the situations before them, build meaningful relationships with students, and hold both content and pedagogical knowledge was highly apparent. I was reminded of the need for continued growth and learning regarding best practices in teacher education and preparing beginning teachers to enact agency for their students, especially considering new technologies and coded racism.

This study used a critical framing which has come under attack in recent months by many states. At this time, nearly 12 states are considering voting on prohibiting

educators from talking about race and questioning power structures within the classroom (O’Kane, 2021). Idaho recently passed legislation and the following states are currently discussing eliminating critical frameworks: Alabama, Alaska, Arizona, Arkansas, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, Oklahoma, South Carolina, Texas, Utah, and West Virginia (Hays, 2021). Future researchers will want to pay attention to how the tension between a lack of criticality in the classroom and in some cases at the state level, and at the same time a growing diverse student body impact learning in the face of growing technology implementation.

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APPENDIX A

Data Collection Guide

RQ Connection	Observation	Interview	Document Analysis
RQ 2	<ul style="list-style-type: none"> • Posting of scores • Assessment practices • Student/Teacher communication/relationships • Communication patterns • PL Tech Practices • Collaboration • Physical setting • Acculturation • When do students choose to learn • Acts of resistance • Behavior • Translanguaging 	<ul style="list-style-type: none"> • Define achievement • Purpose of education • Assessment beliefs • Student teacher relations • SEL • Accountability • Negotiation of learning • Philosophy of PL Tech program • Data, assessments • Student choice (how they learn) • Choice of content • Negotiation of learning 	<ul style="list-style-type: none"> • Philosophy of PL Tech program • Define achievement • Assessment beliefs • Acculturation • Accountability • Dress codes, behavior documents • Rules, objectives, norms
RQ 1a,b,c	<ul style="list-style-type: none"> • Purpose of education • PL Structures • Objectives/learning goals • Normed practices/rewards • Communication patterns • Communal knowledge vs. individual knowledge 	<ul style="list-style-type: none"> • Perspectives on purpose of education • Self-regulation/self-knowledge • SEL • Acculturation • Normed practices/rewards • Communal knowledge vs. individual knowledge 	<ul style="list-style-type: none"> • Standardization of content and activities • Acculturation • Objectives/learning goals • Rewards • Content
RQ 1b	<ul style="list-style-type: none"> • ELA activities • Communication practices 	<ul style="list-style-type: none"> • Literacy within the community, future • Deep learning • Personal connections • How do they perceive themselves as literate? 	<ul style="list-style-type: none"> • Literacy activities • Scores • Written and spoken work
RQ 1a,b,c	<ul style="list-style-type: none"> • Dialogic processes • Crit lit practices • Diverse cultures/perspectives • Content choice • Std center vs. Teach center • Translanguaging 	<ul style="list-style-type: none"> • Crit lit practices • Data usage • Choice • How do stds feel about content • Connections to texts • Discussions, POV, symbolism • Purpose of lit selected 	<ul style="list-style-type: none"> • Lit tracking and assessment tracking • Diverse cultures • Perspectives of lit selected • Purpose of lit selected

APPENDIX B

Classroom Observation Guide

Date: _____ Lesson: _____
 Teacher: _____ Grade/Subject: _____
 # of Students _____ Time/Duration: _____
 Instructional Goal(s)/Standard(s): _____

Pre-Observation Comments:**During Observation: Learning Personalized Via:**

- ☐ ELA Standards-aligned learning objectives
 - Reduced for some students
 - Expanded for some student
 - Other
- ☐ Content objectives
 - Reading level
 - Materials
 - Assignments
 - Student self-selection
- ☐ Instructional methods
 - Whole class
 - Individual
 - Groups
 - Teacher-directed
 - Tech-directed
- ☐ Learning pace
 - Self-paced
 - Mastery-based
 - Adaptive-based
 - Other
- ☐ Learning content (people, time, place)
 - Tech as instructor
 - Alternative instructor:
 - Class setting
 - Community setting:
 - Other:
- ☐ Interactions observed:
 - Student-student
 - Student-teacher
 - Student-technology

Areas of Literacy competencies supported (organized by research question)		
Cognition RQ 1.1	Metacognition RQ 1.2	Motivational RQ 1.2 and 2
<i>By use of these known strategies and tactics:</i>		
<input type="checkbox"/> Connects to prior learning <input type="checkbox"/> Connects to or uses native language <input type="checkbox"/> Builds vocabulary <input type="checkbox"/> Reinforces memorization <input type="checkbox"/> Enhances core knowledge <input type="checkbox"/> Includes rich reading (combination of text types) <input type="checkbox"/> Includes writing (grammar, sentences, paragraphs, essays, personal narrative, etc) <input type="checkbox"/> Includes speaking (various forms of dialogue practice) <input type="checkbox"/> Includes listening <input type="checkbox"/> Includes assessment practices <input type="checkbox"/> Includes interactions away from technology <input type="checkbox"/> Other:	<input type="checkbox"/> Critical thinking and reading <input type="checkbox"/> Critical questioning <input type="checkbox"/> Enhances creative/divergent thinking <input type="checkbox"/> Requires active engagement <input type="checkbox"/> Reinforces memorization <input type="checkbox"/> Builds self-regulatory activities (goal setting, self-monitoring) <input type="checkbox"/> Supports students in seeking outside help <input type="checkbox"/> Includes student tracking of mastery and/or completion <input type="checkbox"/> Other:	<input type="checkbox"/> Multicultural literature <input type="checkbox"/> Variety of text options <input type="checkbox"/> Offers connections to life outside school <input type="checkbox"/> Includes issues of importance to students <input type="checkbox"/> Is differentiated or bases UDL <input type="checkbox"/> Provides high level of engagement <input type="checkbox"/> Includes student choice <input type="checkbox"/> Optimal ZPD without constant repetition <input type="checkbox"/> Other:
<i>As exemplified by (concrete examples):</i>		

Technology Platform and or other tools used:

Classroom set up (sketch):

Observation comments:

Further Reflection Notes (include date):

APPENDIX C

Student Semi-Structured Interview Protocol

1. Describe a typical day in the classroom during ELA.
 - a. What types of activities do you do as a group and as an individual during ELA?
2. What makes a “good” reader?
3. Do you consider yourself to be “literate”?
 - a. Why or why not?
 - b. How would you describe yourself as a student of English?
4. How do you decide what to read?
 - a. Do you like the selections? Why or why not?
 - b. If you could choose, what would you add to or take away from the choices? Why?
5. What literacy skills do you use outside of school?
6. What aspects of your ELA course have supported your learning the most?
7. Describe opportunities for connecting your literacy skills and learning to the world outside of school.
 - a. For example, connections to family, hobbies, community.
 - b. Are you allowed to learn more about your community, hobbies, future goals/aspirations?
8. How has PL Tech influenced your literacy learning?
9. What type of skills do you need to have in order to learn using PL Tech? Is this different than what a student needs in a traditional classroom? Why or why not?
 - a. Do you have these skills?
10. What do you think the programs/platforms want you to learn?
 - a. Is this the same as your teacher?
11. How often do you interact with the technology?
12. How would you describe your time spent on the platform?
13. Are you able to access the platform outside of school?
 - a. If you could, would you?
 - b. How often do you access it outside of school? Where do you access it from?
14. If you could let the people who designed the curriculum know anything about what they designed, what would you tell them?
 - a. What do you think the curriculum writers/creators care more about? Why?
 - b. What do you care about in regards to your learning?
15. What types of technology do you access outside of school?
16. Describe the culture of the school to me.

- a. For example, since I am a visitor to the school, what should I know about this place? What's it like? What should I expect to see and hear?
 - b. Do you think the teachers and principal see the school in the same way? Why or why not? What do you think they see?
17. Do you like learning (or doing school) this way? Why or why not?
18. Why did you choose to attend this school?
- a. If you didn't, who did and why?

APPENDIX D

Instructor Semi-Structured Interview Protocol

1. Describe a typical day in the classroom during ELA.
 - b. How often do you communicate with your students about literature?
Writing? Assessments?
 - c. How often are there group discussions about text?
 - d. What types of activities do you plan during ELA?
2. What is the purpose of school and learning? What is the purpose of being literate?
 - a. Do your students have the same ideas?
3. Do you consider your students to be “literate”?
 - a. Why or why not?
 - b. Can the curriculum support/change this? Can the platform support/change this?
4. Do you have a say in what students read? If so, how do you decide what to read?
If not, how does this affect you as an ELA teacher?
 - a. Do you like the selections? Why or why not?
 - b. If you could choose, what would you add to or take away from the choices? Why?
5. Describe opportunities for allowing students to connect their literacy skills and learning to the world outside of school.
 - a. For example, connections to family, hobbies, community.
6. How often are students interacting with the platform?
7. How often do you interact with the platform?
 - a. Do you spend time outside of your class day interacting with the platform?
8. How do you analyze and use the data presented by the platform?
9. What type of skills do you and students need to have in order to learn using PL Tech?
 - a. Is this different than what a student needs in a traditional classroom? Why or why not?
 - b. Do your students have these skills? How do you know?
 - c. How do the students interact with the technology? Can they and do they access it outside of school?
10. What does “deep literacy learning” mean to you? Do you feel students are getting that experience with PL Tech? Why or why not?
11. How does this technology create equitable learning opportunities for students?

12. If you could let the people who designed the curriculum know anything about what they designed, what would you tell them?
 - a. What do you think the curriculum writers/creators care more about? Why?
 - b. What do you care about in regards to your learning?

13. Describe the culture of the school to me.
 - a. For example, since I am a visitor to the school, what should I know about this place? What's it like? What should I expect to see and hear?
 - b. Do you think the students and principal see the school in the same way? Why or why not? What do you think they see?
14. Do you like teaching this way (using PL Tech)? Why or why not?
15. Why did you choose to teach at this school?
 - a. How long have you been teaching?
 - b. Do you feel prepared to teach in this setting? Why or why not?

APPENDIX E

Administrator Semi-Structured Interview Protocol

1. Describe the culture of the school to me.
 - a. For example, since I am a visitor to the school, what should I know about this place? What's it like? What should I expect to see and hear?
 - b. Do you think the students and teachers see the school in the same way? Why or why not? What do you think they see?
2. Describe the student body for me:
 - a. Who are the students?
 - b. Would you consider them to be literate?
 - c. How do you see them acting as engaged community members?
3. What are the goals of this school?
 - a. As the principal, what are your goals for the school, teachers, and students?
4. What goals do you have for literacy learning?
5. How does the use of PL Tech align to the goals?
6. What are the pros and cons of using and implementing PL Tech for courses like ELA?
 - a. Benefits and challenges
 - b. What do you hear from students and teachers about PL Tech?
7. How much time do you expect students and teachers to spend interacting with the platform for ELA?
8. How does PL Tech impact issues of accountability?
9. How does PL Tech create equitable learning opportunities for students?
10. To what extent, if any, is there variation in learning and achievement across socio-economic status, gender, race, and literacy proficiency level?
11. What type of training did the teachers receive about PL Tech?
12. How do you think PL Tech has affected the campus?
13. If there was one thing you wanted the curriculum designers to know about their product/platform what would you share with them?



Jan 31, 2020 11:19 AM PST

Michele McConnell
Sch of Leadership & Ed Science

Re: Expedited - Initial - IRB-2020-62, Personalized Learning Technology

Dear Michele McConnell:

The Institutional Review Board has rendered the decision below for IRB-2020-62, Personalized Learning Technology.

Decision: Approved

Selected Category:

Findings: None

Research Notes:

Internal Notes:

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

The next deadline for submitting project proposals to the Provost's Office for full review is N/A. You may submit a project proposal for expedited or exempt review at any time.

Sincerely,



Dr. Thomas R. Herrinton
Administrator, Institutional Review Board

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