

A QUALITATIVE CASE STUDY DECONSTRUCTING TEACHERS' DECISIONS
IN THE PRE-ACTIVE STAGE OF TEACHING TO ILLUMINATE
CONSIDERATIONS MADE FOR TEACHING 21ST-CENTURY
SKILLS AND KNOWLEDGE

A DISSERTATION IN
Education

Presented to the Faculty of the University
of Missouri-Kansas City in partial fulfillment of
the requirements for the degree

DOCTOR OF EDUCATION

by
Carl M. Calcara

B.A., University of Missouri-Kansas City, 1998
M.A., University of Missouri-Kansas City, 2002
Specialist in Education, University of Missouri-Kansas City, 2006

Kansas City, Missouri
2019

© 2019
CARL M. CALCARA
ALL RIGHTS RESERVED

A QUALITATIVE CASE STUDY DECONSTRUCTING TEACHERS' DECISIONS
IN THE PRE-ACTIVE STAGE OF TEACHING TO ILLUMINATE
CONSIDERATIONS MADE FOR TEACHING 21ST-CENTURY
SKILLS AND KNOWLEDGE

Carl M. Calcara, Candidate for the Doctor of Education Degree

University of Missouri-Kansas City, 2019

ABSTRACT

The purpose of this heuristic case study was to develop a deeper understanding of how middle-level teachers in one Midwestern middle school account for teaching 21st-century skills and knowledge, within the context of a standardized curriculum. This study seeks to obtain descriptive information for how teachers account for 21st-century skills and knowledge in their instruction while in the pre-active stage of teaching. The central question was: What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners? Data collection included classroom observations, lesson reflection journals, individual teacher interviews, and a focus group interview. Through the process of within-case and cross-case analysis, aided by the use of a qualitative data software, NVivo 12 Qualitative Data Analysis, themes identified in the data were: Pre-Active Stage Inputs, 21st-century Framework Comprehension, Barriers to Implementation, and Fidelity to Curriculum. The findings supported much of the reviewed literature related to teacher decision making and inputs with regard to instruction. However, the study revealed that deficit thinking and the pressures of standardization and curricular accountability had a more detrimental impact on teachers' ability and willingness to

implement 21st-century skills and knowledge into lessons, especially when the curriculum did not intentionally include 21st century skills and themes. These findings may guide instructional leaders as well as classroom practitioners toward a more rigorous and comprehensive 21st-century aligned pedagogy.

APPROVAL PAGE

The faculty listed below, appointed by the Dean of the School of Education, have examined a dissertation titled “A Qualitative Case Study: Deconstructing Teachers’ Decisions in the Pre-Active Stage of Teaching to Illuminate Considerations Made of Teaching 21st-Century Skills and Knowledge,” presented by Carl M. Calcara, candidate for the Doctor of Education degree, and certify that in their opinion it is worthy of acceptance.

Supervisory Committee

Loyce Caruthers, Ph.D., Committee Chair
Division of Educational Leadership, Policy & Foundations

Jennifer Friend, Ph.D.
Dean, College of Arts and Sciences and Professor of Education
Rockhurst University

Gus Jacob, Ed.D.
Educational Leadership, Policy & Foundations

Uzziel Pecina, Ed.D.
Educational Leadership, Policy & Foundations

CONTENTS

ABSTRACT	iii
LIST OF ILLUSTRATIONS.....	ix
LIST OF TABLES.....	x
ACKNOWLEDGMENTS	xi
DEDICATION.....	xiii
Chapter	
1. INTRODUCTION	1
The Problem	4
The Purpose of the Study and Research Questions	20
Theoretical Framework	24
Design and Methods Overview	35
Significance of the Study.....	40
2. REVIEW OF LITERATURE.....	44
The Historical and Socio-cultural Context of School and School Reform and Its Continued Influence on Educational Systems	45
Dynamics of Individual and Organizational Barriers to Educational Reforms	58
Critical Pedagogy for 21st-Century Alignment	69
Teacher Decision Making	79
Summary	90
3. METHODOLOGY	92
Rationale for Qualitative Research	95
Case Study	99

Heuristic Inquiry	102
Social Constructivism	104
The Role of the Researcher	106
The Design of the Study	107
Data Analysis Procedures, Process, and Analysis	109
Significance of the Study	124
4. SUMMARY OF FINDINGS	126
Participants	127
Reflections about the Process	129
Telling the Story of the Data	130
Cases	132
Answering the Research Questions: Cross-case Analysis	186
Summary	196
5. IMPLICATIONS OF FINDINGS	198
Implications of Findings and Recommendations	198
Suggestions for Future Research	211
Conclusion	213
Appendix	
A. OBSERVATION PROTOCOL	216
B. LESSON PLAN REFLECTION FORM	218
C. CONSENT FOR PARTICIPATION IN RESEARCH STUDY	220
D. INTERVIEW PROTOCOL	225
E. GROUP INTERVIEW PROTOCOL	227

REFERENCE LIST	228
VITA	253

ILLUSTRATIONS

Figure		Page
1.	Partnership for 21st Century Skills Framework	21
2.	Three Stages of the Teaching Process	23

TABLES

Table	Page
1. Grade Level Assessment Data: Math	7
2. Grade Level Assessment Data: ELA	7
3. Grade Level Assessment Data: ELA by Gender	8
4. Grade Level Assessment Data: Math by Gender	8
5. Grade Level Assessment Data: ELA by Race/Ethnicity	10
6. Grade Level Assessment Data: Math by Race/Ethnicity	11
7. Grade Level Assessment Data: ELA by Special Programs	12
8. Grade Level Assessment Data: Math by Special Programs	12
9. Cohort 7 Longitudinal STAR Data: Math	13
10. Cross-Case Analysis	188

ACKNOWLEDGMENTS

I cannot begin any acknowledgments without starting with my father, Carl G. Calcara. He himself never attended college but modeled for me every day the value of having a strong work ethic and what it means to take pride in that work. While I was playing soccer for the University, he never missed a game, even if that took him to New Mexico, Costal Carolina, or Macolb, Illinois. He has shown me every day of my life what it is to be a good father through his unconditional love and support. If I can be half as good a man and father as he has been to me, I will consider myself successful. Thank you, Dad, for all your unconditional love and support.

Although my work involves my commitment to lots of other people's children and that often looks like missed back to school nights or parent teacher conferences or field trips for my own children, I love them more than they can ever know. Isabella, Francesca, and Claudio, you inspire me, and I hope I make you as proud of me, as I am of all of you. I look forward to where your journeys will carry you.

If there is a testament to the power of coaches and teachers and their ability to change the life trajectory of the students they touch, it would be me. As a high school senior, I had never contemplated college or even life after high school, for that matter. That all changed one cold October afternoon in 1991 when Coach Mike Brown asked me during practice where I wanted to go to college. I remember asking him, "You think I can go to college?" Without Coach Brown, I would not have dared to dream of pursuing college after high school. I am here today because of my coach, my best friend, Mike Brown. Thank you, Coach.

I'm lucky to have met my great, great, grandfather and understand the sacrifices he and the rest of my family have made to make a better life for all of us. My family deserves my love and recognition for helping to raise me, as well as my own children. Thank you all for your love and support—I could not have accomplished this without each of you.

To the one I refer to as editor in chief, you came into my life when I expected it least but perhaps needed it most. Your steady support and encouragement has moved me in many ways these past two years and I would not be here now, finishing this, without you. You will never fully understand what you have been to me, and I will forever be indebted to you. I am beyond grateful.

I need to acknowledge and thank the University of Missouri-Kansas City and all the faculty and staff I have had the pleasure of meeting and working with over these many decades. I have grown up here, and for a young man who never felt he was smart enough to do academic work, I more than appreciated the encouragement from all of you. You all have helped shape me and my passion for education. I am more than fortunate to have had access to you through the School of Education. I want to thank my dissertation committee for not only guiding me through this process, but in my journey along the way as a public educator. I have many fond memories of classes with each of you, and your teachings and guidance have served me well as an educator. Finally, I want to thank Dr. Caruthers specifically for her steadfast encouragement and support. She refused to give up on me; on more than one occasion over these many years, as I contemplated giving up on this dream, it was her words that kept me moving forward. Thank you, Dr. Caruthers, for your continued guidance and support.

This dissertation is dedicated to my best man, my best friend,
my partner in crime, my cousin –
Joseph Vincent Bates
1974–2017

CHAPTER 1

INTRODUCTION

Undeniably, our world is changing at a rapid pace. To the detriment of society, however, our educational system has defied all expectations of evolving in a similar manner. “The supernova (rapid advances and changes to technology, the markets, and climate) is making a joke of both patent law and education. Governments, companies, and individuals are struggling to keep up” (Micklethwait, 2016, p. 1). Outside of education, there are unprecedented advances in medicine, communications, and science, spurred by advanced technologies that are transforming how we live (Friedman, 2016). Inside of education, classrooms, their structures, and instructional delivery has experienced little change in past decades. Faulkner and Latham (2016) wrote, “There is recognition of the need to alter industrial model educational practices for 21st-century learners; practices that currently normalize the content students receive” (p. 137). In a bold disservice to our students, the education currently provided to them is failing to ensure they are equipped with the requisite skills, knowledge, and attitudes to guarantee college and career readiness (Kamenetz, 2016). To this point, The Center on Standards and Assessment (CSAI) released a report in 2016 in which they administered surveys to college instructors, employers, and recent high school graduates regarding the preparedness of high school graduates for college and careers. According to one study (2005) of high school graduates, college professors, and employers, “College instructors estimate that 42% of high school graduates are not adequately prepared by their high school education for the expectations of college classes and are struggling or

having to take remedial courses to catch up” (Peter D. Hart Research Associates & Public Opinion Strategies, 2005, p. 8).

The failure of our compulsory educational system is highlighted in the number of our nation’s youth who are not attending school. According to the National Center for Educational Statistics (NCES), in 2017, the percentage of youth neither in school nor working was higher for older youth than for younger youth. Specifically, 17% of 20- to 24-year-olds were neither in school nor working compared to 12% of 18- and 19-year-olds and 5% of 16- and 17-year-olds. Among 16- and 17-year-olds, the percentage neither in school nor working was higher in 2016 (NCES, 2019). Couple this with the fact that a growing number of today’s high school graduates are not college and career ready (NCES, 2019), and it then becomes clear that post-secondary readiness is not only an educational imperative, but an economic and moral one as well. Quite simply, our educational system must do more.

As Micklethwait (2016) stated, “Governments, companies, and individuals are struggling to keep up” (p. 2). There is a disconnect between the rate of change and our educational system’s ability to develop the learning and training modalities that help organizations and individuals synthesize new realities (Friedman, 2016). Because our educational system’s ability to adapt to the changing landscape has been lethargic at best, I do not believe that we, as a national collective, will be able to systematically and radically alter education in a way that responds quickly enough to current global realities. I do, however, hold a strong belief that the individual classroom teacher possesses the ability to radically transform classroom instruction, and ultimately student learning, in a manner that equips students with the requisite skills, attitudes, and passions that lead to successful

pathways in post-secondary schooling. According to Schmoker (2006), “The single greatest determinant of learning is not socio-economic factors or funding levels. It is instruction” (p. 12).

While our educational system has been reactive and largely influenced by those outside the classroom, the art and craft of teaching, or “how” teachers teach, is still very much controlled by teachers themselves. According to Cain and Laird (2011), “Teacher craft is arguably the most critical component in student academic success” (p. 12). Teacher credibility in the eyes of students had an effect size of 0.90 on student achievement (Hattie, 2012). This means the influence an individual classroom teacher ultimately has on student learning and achievement is significant. The decisions classroom teachers make regarding instructional strategies can either facilitate learning or completely stifle it. Therefore, it is critical to understand just how and why teachers make instructional decisions.

What are the intentional choices teachers make with regard to instruction? Gun (2014) wrote, “When teachers are asked to reflect on teaching, they tend to reflect on the actions rather than the reason behind them. Furthermore, some teachers are unable to provide rationale behind their actions when asked” (p. 76). What is their level of consciousness with those decisions? Why is there a lack of intention when dialoguing with teachers about the rationale behind their instructional practices? It is this question that formed the foundation of what this study sought to understand. Why do teachers make decisions to teach in specific ways? When unpacking curriculum, which teacher decisions prove critical to student learning?

Through this study, I sought to deconstruct teachers’ decisions and glean insight into their intentions with regard to instructional practice. Specifically, I illuminated

considerations made by middle-level classroom educators in the pre-active stage of teaching, which, according to Penso and Shoham (2003), is where the teacher is planning the lesson, gathering resources, creating activities, making decisions about instructional strategies, and thus designing the way in which the lesson will be unpackaged for the students. I explored the essence of why classroom teachers create and deliver content and instruction in specific ways. By unwrapping teachers' cognitive thought processes, I could reveal how they have constructed their reality about classroom instruction, and how those constructs influence the decisions teachers make with regard to instructional delivery.

The Problem

The future of our students depends on their ability to be adaptable, creative, and ingenious problem solvers. Teaching to state assessments does not accomplish this goal. Instructional shifts in education need to happen in order for students to be successful innovators in our 21st-century world (Alismail & McGuire, 2015). Given that most educators know what is required for students to be both productive citizens and college or career ready, why do teachers continue to deliver curriculum through ineffective instructional strategies which so often fail to engage students and unlock their potential? Schmoker (2006) wrote, "Close studies of classroom practice over many years have revealed that most—though not all—instruction is mediocre or worse" (p. 2). The pervasive use of ineffective instructional practices continues to negatively impact student learning and achievement, resulting in ill-prepared students unable to face the challenges their post-secondary lives will present. As cited in Hattie's (2012) work, *Visible Learning for Teachers*,

The effect of high effect teachers compared with low-effect teachers is about $d = 0.25$, which means that a student in a high impact teacher's classroom has almost a year's advantage over his or her peers in a lower-effect teacher's classroom. (p. 23)

Furthermore, the quality of teachers' instruction is the most significant predictor of student learning. Student success or failure is largely determined by how well teachers are able to deliver instruction to their students (Early, Rogge & Deci, 2014; Martella & Merchand-Martella, 2015; Rowe, 2003). Clearly, the quality of the instruction impacts student learning, as does the level of expertise of the teacher delivering it. As evidenced by Hattie (2012), Nationally Board Certified (NBC) educators show that "74 percent of the work samples of students in the classes of NBCs [educators] were judged to reflect a deep level of understanding, compared with 29 percent of the work samples of non-NBC teachers" (p.30). The more experienced and trained the classroom instructor, the more likely students are to learn.

Unfortunately, more often than not, classroom teachers continue to choose to implement low yield teaching strategies. A 2005 study of 1,500 classroom observations revealed that only four percent of classrooms had a clear learning objective. Only three percent of classrooms showed evidence of high-order thinking. No classrooms where students were either writing or using rubrics were observed. And, 52% of the classrooms were utilizing worksheets. (Learning 24/7, as cited in Schmoker, 2006, p. 18)

Data from a similar observational study of K-8 teachers in Chicago's public schools noted similar findings. Diamond and Spillane (2004) conducted a multi-method study of school leadership in 15 K-8 public schools in Chicago. Researchers spent between 50 and 70 days per school year in eight case study sites from 1999 to 2003. The seven other schools were interview only sites. In the case study sites, data collection included semi-structured interviews, observations and shadowing, and classroom observations and teacher interviews.

The study found that much of the instruction was teacher directed with very little student talk time other than individual student responses to whole group questions (Diamond, 2012).

These types of low yield teaching strategies continue to be too pervasive in classrooms today. In the most recent walkthrough data, collected in 113 classroom observations at Bella Vista Middle School, which is the established pseudonym for where the study was conducted, 73% of the students were listening or working independently. Instruction with a didactic emphasis is more consistently found in predominately black schools (Diamond, 2007). The pedagogy of poverty too often prescribes to a basic urban style that frequently elicits basic instructional strategies and curriculum without the input from learners (Haberman, 2010). If students need to develop 21st-century skills, teachers must more frequently scaffold for complexity and rigor in classrooms. Passively listening or idly engaging in independent seat work 73% of a school day is not the recipe for the critical thinking and creative collaboration requisite of our 21st-century students. Students spending 73% of their instructional time listening or working independently will not ensure students' success beyond their secondary experiences.

Assessment Data at Bella Vista Middle

As I reflect on low yield teaching strategies and the achievement of students at Bella Vista Middle School, I am painfully aware that many of our students are not meeting the academic benchmarks the district has set for their learning. Furthermore, three years of state assessment data in (see Table 1) shows a pattern of low performing students in the district in which the study was conducted. State assessment data over the past three years demonstrates a continuing pattern of decline in mathematics with scores significantly below state average due to a large number of students performing at a below basic level.

Table 1

Grade Level Assessment Data: Math

Grade	2015			2016			2017		
	6th	7th	8th	6th	7th	8th	6th	7th	8th
State Average	259.9	285.5	258.7	316.5	311.4	281.8	316.6	315.0	285.5
District Average	243.6	228.8	195.1	265.8	255.5	252.6	258.0	252.8	223.2

Source: State and District Profile Data (2015, 2016, 2017)

Although the English Language Arts (ELA) scores were above the floor, which is a minimum state assessment index score of 300, more students performed at the Basic and Proficient levels but the district’s ELA scores (see Table 2) remain significantly lower than the state averages.

Table 2

Grade Level Assessment Data: ELA

Grade	2015			2016			2017		
	6th	7th	8th	6th	7th	8th	6th	7th	8th
State Average	335.1	338.5	344.6	337.9	330.0	340.8	339.1	334.3	343.3
District Average	306.1	299.3	321.3	314.1	302.3	312.3	306.2	303.9	306.0

Source: State and District Profile Data (2015, 2016, 2017)

Further evaluating state assessment data and looking more specifically at what accounts for the index scores in the tables gives yet another lens of not only the gaps continuing to persist in student learning, but also the critical need to alter curriculum and instruction in a way that ensures learning for all students. Tables 3 and 4 show **ELA and Math scores disaggregated by gender.**

Table 3

Grade Level Assessment Data: ELA by Gender

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
Female	Sixth	28	35.0	27	33.8	22	27.5	3	3.8
Male	Sixth	37	35.6	24	23.1	37	35.6	6	5.8
Female	Seventh	26	28.0	23	24.7	35	37.6	9	9.7
Male	Seventh	35	37.6	21	22.6	29	31.2	8	8.6
Female	Eighth	24	21.2	31	27.4	46	40.7	12	10.6
Male	Eighth	43	39.1	28	25.5	32	29.1	7	6.4

Source: Bella Vista Middle School (2017)

Table 4

Grade Level Assessment Data: Math by Gender

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
Female	Sixth	28	35.0	39	48.8	11	13.8	2	2.5
Male	Sixth	41	39.4	41	39.4	19	18.3	3	2.9
Female	Seventh	35	38.0	37	40.2	18	19.6	2	2.2
Male	Seventh	42	45.7	31	33.7	14	15.2	5	5.4
Female	Eighth	33	39.8	43	51.8	6	7.2	1	1.2
Male	Eighth	49	53.3	35	38.0	*	*	*	*

Source: Bella Vista Middle School (2017)

ELA grade level assessment data disaggregated by gender show that with the exception of sixth grade, female students out-performed their male cohorts with higher numbers of female students scoring proficient and advanced. Both groups are being outperformed by their counterparts in the state as referenced in Tables 1 and 2; however, these data highlight a disparity of performance between male and female students at the school where the study was conducted.

Much has been studied and written with regard to the achievement gap that exists between students of color and their White counterparts since the introduction of No Child Left Behind (NCLB) legislation was signed into law in 2002. Designed to close the achievement gap and ensure equity, high-stakes assessments have had the opposite effect. Au (2019) writes, “high-stakes standardized testing has not only failed at achieving racial equality, its proliferation has only exacerbated racial inequality and worsened the education for students of color” (p. 34). Au continues, “test scores correlate most strongly with family income, neighborhood, educational levels of parents, and access to resources—all factors that are measures of wealth that exist outside of schools” (p. 36). Although this study was not intended to look specifically at this inequity, clearly students of color, specifically African American, Multiracial, and Latinx, in the district where the study was conducted, score Below Basic and Basic at much higher rates than their White counterparts. Tables 5 and 6, which are ELA and Math grade level assessment data disaggregated by race and ethnicity, highlight this disparity.

Table 5

Grade Level Assessment Data: ELA by Race/Ethnicity

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
Black	Sixth	50	43.1	28	24.1	34	29.3	4	3.5
Hispanic	Sixth	4	30.8	6	46.2	*	*	*	*
Multiracial	Sixth	*	*	*	*	5	38.5	*	*
White	Sixth	6	15.8	13	34.2	14	36.8	5	13.2
Black	Seventh	40	38.5	24	23.1	35	33.7	5	4.8
Hispanic	Seventh	6	23.1	7	26.9	9	34.6	4	15.4
Multiracial	Seventh	6	42.9	*	*	5	35.7	*	*
White	Seventh	9	22.0	10	24.4	14	34.2	8	19.5
Black	Eighth	47	34.1	43	31.2	43	31.2	5	3.6
Hispanic	Eighth	4	19.1	4	19.1	12	57.1	1	4.8
Multiracial	Eighth	7	46.7	3	20.0	4	26.7	1	6.7
White	Eighth	9	19.6	8	17.4	18	39.1	11	23.9

Source: Bella Vista Middle School (2017)

Table 6

Grade Level Assessment Data: Math by Race/Ethnicity

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
Black	Sixth	50	43.1	48	41.4	16	13.8	2	1.7
Hispanic	Sixth	5	38.5	5	38.5	*	*	*	*
Multiracial	Sixth	5	38.5	7	53.9	*	*	*	*
White	Sixth	8	21.1	20	52.6	7	3	3	7.9
Black	Seventh	49	47.1	40	38.5	*	*	*	*
Hispanic	Seventh	12	48.0	6	24.0	5	2	2	8.0
Multiracial	Seventh	7	50.0	5	35.7	*	*	*	*
White	Seventh	9	22.5	17	42.5	9	5	5	12.5
Black	Eighth	65	55.1	48	40.7	*	*	*	*
Hispanic	Eighth	5	35.7	7	50.0	1	1	1	7.1
Multiracial	Eighth	4	30.8	7	53.9	*	*	*	*
White	Eighth	47	24.1	16	55.2	*	*	*	*

Source: Bella Vista Middle School (2017)

Eric Jensen's (2009) work, *Teaching with Poverty in Mind*, specifically highlighted the impact of the chronic stress of poverty on all aspects of child development. Therefore, it is no surprise the students who qualify for Free and Reduced Lunch (F&R Lunch) and live at or near the national poverty standard reflect those realities in their performance. Perhaps more than any of the other data, the disparity between student performance is reflected here, among these groups of students. Tables 7 and 8, show ELA and Math grade level assessment data disaggregated by Special Programs, specifically students with Individualized

Educational Plans (IEPs) and those students who qualify for Free and Reduced Lunch, are the largest percentages of students scoring Below Basic and Basic.

Table 7

Grade Level Assessment Data: ELA by Special Programs

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
IEP	Sixth	20	71.4	*	*	5	17.9	*	*
F&R Lunch	Sixth	53	40.8	40	30.8	34	26.2	3	2.3
IEP	Seventh	18	62.1	8	27.6	*	*	*	*
F&R Lunch	Seventh	48	37.8	33	26.0	37	29.1	9	7.1
IEP	Eighth	32	71.1	8	17.8	4	8.9	1	2.2
F&R Lunch	Eighth	49	29.9	47	28.7	57	34.8	11	6.7

Source: Bella Vista Middle School (2017)

Table 8

Grade Level Assessment: Math by Special Programs

Group	Grade	Below Basic	% BB	Basic	% Basic	Prof	% Prof	Advanced	% Adv.
IEP	Sixth	22	78.6	4	14.3	*	*	*	*
F&R Lunch	Sixth	54	41.5	58	44.6	16	12.3	2	1.5
IEP	Seventh	20	69.0	9	31.0	*	*	*	*
F&R Lunch	Seventh	62	49.2	47	37.3	16	12.7	1	0.8
IEP	Eighth	32	72.7	10 12	22.7	*	*	*	*

F&R Lunch	Eighth	59	43.4	63	46.3	*	*	*	*
--------------	--------	----	------	----	------	---	---	---	---

Source: Bella Vista Middle School (2017)

Formative assessment data collected further highlights a lack of student growth and learning in the areas of math and reading. Data from the most recent Standardized Test for the Assessment of Reading (STAR), which is a norm-referenced assessment given to students bi-annually, show that 47% of eighth grade students read in the lowest 25th percentile nationally. Barely a quarter of the class is reading at grade level. In regard to mathematics, also assessed by STAR (see Table 9), the trend is equally troubling with only 30% of the students on grade level. Moreover, a longitudinal review of data shows math performance among students declines every year from the point at which students leave fifth grade.

Table 9

Cohort 7 Longitudinal STAR Data: Math

	40+ PR	25-39 PR	10-24 PR	1-9 PR
2017- 2018 Grade 7	41%	18%	20%	20%
2016-2017 Grade 6	56%	18%	16%	9%
2015-2016 Grade 5	63%	14%	13%	10%

National and International Comparison Data

Clearly the existence of a lagging educational system, too often relying on outdated patterns of instruction, are reflected in the performance of students as cited in the assessment

data above. These data mirror student achievement trends that are widely reported nationwide. In a study of more than 200 million test scores from approximately 40 million third through eighth graders in public schools nation-wide, Reardon (2011) found the following patterns of inequity:

- Average test scores of Black students are, on average, roughly two grade levels lower than those of White students in the same district; Hispanic-White difference is roughly one-and-a-half grade levels
- Achievement gaps are larger in districts where Black and Hispanic students attend higher poverty schools than their White peers; where parents on average have attained high levels of education; and where large racial/ethnic gaps exist in parents' educational attainment. (p. 5)

Gill (2011) noted:

Many districts continue to struggle with student achievement, most notably achievement gaps that stubbornly exist between majority and minority populations. In many urban areas of the country, student literacy remains a national disgrace. High school dropout rates remain high, 50% in some of the urban areas of the country. Students are leaving high school unable to read and complete basic computations. (p. 282)

Unfortunately, what this means for students, especially students of color and those qualifying for special programs, is that they are less prepared to meet the challenges of college or career pathways after high school. At the Next New World Conference, according to Schwartz (2016a), "every panelist agreed that right now, the U.S. does not have a system that produces students that meet the needs of the rapidly changing 21st century economy" (p. 1). These sentiments are shared by the teachers in the building in which the study was conducted. When teachers at Bella Vista Middle School were asked the question on the bi-annual district climate survey, "*My school adequately prepares all students to be college and career ready,*" less than 20% of classroom teachers reportedly felt they were "adequately" preparing students for college and career. These teachers' beliefs about their

students' ability to be ready for post-secondary opportunities are abundantly supported in national and international student data points.

Data released from the most recent Program for International Student Assessment (PISA, 2016) pointed to a struggling educational system with our nation's middle and secondary students dropping in national and international assessments where they once excelled. The United States ranked 19th in science, 20th in reading, and 31st in mathematics out of the 35 Organization of Economic and Co-Operative Development (OECD) countries who participated. According to the same report, 20% of 15-year-old students in the United States did not reach minimum baseline performance in science. Conversely, the proportion of low performers was less than 10% in Estonia, Hong Kong (China), Japan, Macao (China), Singapore, and Vietnam. Worse yet, about 19% of 15-year-old students in the United States did not attain minimum proficiency in reading, while an even greater number, 29%, were unable to attain minimum mathematics proficiencies (PISA, 2016). Similarly, the National Association for Educational Progress (NAEP) released its 2015 findings reporting "only 39% of the students we graduate in this country are college and career ready" (Kamenetz, 2016, p. 3). Considering only five countries in the OECD outspend the United States in per capita expenditures on education, the efficiency of our educational systems, its practices, and what educators do in the classroom must be brought into question.

A review of the ACT High School Profile Report continues to paint a picture of ill-prepared and under-readied high school graduates. According to the State Department of Education (2018) the composite score was 20.4, while the school in the district in which the study was conducted had a composite score of 18.2. According to ACT, only 27% of the 1,914,817 students who took the ACT in 2018 met the College Readiness Benchmark scores

for readiness (ACT National Profile Report, 2018). Thus, clearly a composite score of 18.2 would indicate students in this district are less likely to adequately perform on college level work than their peers nationally. If scoring on the nationally normed assessment indicates that only 28% met the benchmarks of readiness, then students in this district are clearly at a disadvantage as they matriculate. In 2016 and 2017, the state mandated all 11th grade students be required to take the ACT. With the influx of students now taking the ACT, almost 20,000 more students statewide, state and district composite scores have dropped as a result.

Given a rapid loss in jobs from the manufacturing sector over the past few decades, and fewer opportunities for unskilled labor to find employment, today's dropouts and underprepared youth, wrote Radcliff and Bos (2013), "are more likely to face unemployment, poverty, ill health, incarceration, and dependence on social services" (p. 136). Secondary educators tend to think of schooling as preparation for college and career and do not often associate what they do as perpetuating health, joy, and overall well-being. However, in the absence of instructional success, those characteristics are more difficult to obtain and frequently result in an increased expense to the state. Again, the need for our educational system to do more to ensure our citizens have viable pathways to achieve happy, healthy, and financially independent lives is both a moral and economic necessity.

Impact of Instruction: Effective and Ineffective

Clearly, data being reported point to a system that is struggling with readiness. Falling test scores, increased dropout rates, and a lack of collective readiness all can be attributed to the continued persistence of ineffective instruction, teachers' personal resistance to change (Bok, 2006), and a rigid organizational structure promoting

standardization and low level skills (Darling-Hammond & Adamson, 2014; Schwarz, 2016b; Spillane & Diamond, 2007).

Effective teachers and instruction can be one of the most significant factors impacting student learning. Early, Rogge, and Deci's (2014) study on engagement, alignment, and rigor, through 2, 171 classroom observations, supports the notion that "the quality of teachers' instruction is the most proximal and powerful predictor of students' learning" (p. 219). However, the responsive and engaging instruction our students need to ready themselves for their post-secondary world is still not occurring with any urgency. According to Hattie (2012), "up to 90% of the instruction we conduct can be completed by students using only the surface-level skills" (p. 217). If students are to be critical thinkers, capable of analyzing and creative problem solving, then schools must teach in ways that promote these 21st-century skills. While teachers will not disagree with this premise, Schwartz (2016b) wrote, "they don't often know exactly how to teach these skills explicitly because many of the mandates and required curricula seem to push in the opposite direction" (p. 1). Teachers often struggle to reconcile differentiated instruction, tasks, and content in the very standardized context in which they find themselves today.

Accountability Movement and its Impact on Instruction

The standardization movement and mandates for curricular hegemony over the past few decades have served to remove much of the creative license teachers once had over curricula. As curriculum at the local, state, and national levels becomes more standardized, teaching content outside prescribed curricula is systematically suppressed. Davis, Beyer, Forbes, and Stevens's (2011) small scale case-study explored pedagogical design capacity through teachers' narratives. In this study, two elementary teachers as the participants,

through semi-structured interviews and classroom observations, provided illustrative and contrastive cases, exploring how teachers' curriculum adaptations are impacted by standardization. The study found that even in districts where science was a core subject, it was accorded less instructional time than numeracy and literacy in elementary classrooms. Furthermore, science teachers need support in finding ways of adapting curriculum materials. According to Duran, Yaussy, and Yaussy (2011), "scientific literacy is, unquestionably, a necessity for success in the modern world" (p. 98).

Diamond and Spillane's (2004) multimethod study of school leadership in 15 K-5 and K-8 Chicago public schools, referenced earlier, found that the pressure from high stakes testing may often lead to a myopic lens on curricular objectives by focusing on basic skills or cause a splintering of curriculum in order to meet the demands of standardized testing. To this point, Griffith, Massey, and Atkinson (2013) wrote,

Policymakers and politicians are advancing [standards-based curricula] with mandates and legislation determining what students at each grade level should know and be able to do...with novice teachers typically embracing the standards and associated pacing guides, whereas experienced teachers identify the movement as frustrating due to loss of their professional freedom. (p. 307)

If mandates squeeze time for teaching inquiry, experimentation, generating hypothesis, creativity, and innovation, where, then, will students acquire those necessary skills to the levels requisite for 21st-century citizens? Teachers essentially control how curriculum gets unpackaged in their classrooms by dictating which instructional strategies they will utilize. Teachers need further professional development about balancing the needs of students with the adopted curriculum and mandated standards (Griffith et al., 2013). The decisions teachers make with regard to instructional practice are critically important. Teachers bring with them to the classroom their own ideas, beliefs, and prejudices about teaching, learning,

and students. These beliefs and assumptions work in unison to impact classroom practice and ultimately, student learning. The differences between high-effect and low-effect teachers are directly related to the attitudes and expectations that classroom teachers hold about their ability to influence student learning (Hattie, 2012). Slater, Davies, and Burgess's (2009) qualitative study about teacher effectiveness where they collected exam results for 7,305 pupils of 740 teachers, across 33 schools evidently shows that teachers matter a great deal. High-impact teachers raise test scores by (at least) 25% of a standard deviation. Having a high-impact teacher, as opposed to a mediocre or poor teacher, makes a monumental difference. Therefore, it is critical to be able to understand how teachers' decisions in the pre-active stage of teaching are made. The pre-active phase is the period before instructional delivery occurs. This is the stage when teachers are planning the lesson and evaluating and selecting teaching methods and materials that influence pedagogical decisions (Tsui, 2003).

When teachers do not know what to do, they often do more of what they know. In many instances, that means a reliance on classroom practices that have long outlived their relevance. Faulkner and Latham (2016) wrote that educators "need to unlearn much of what has been valued and central and relevant to 20th century learning" (p. 138). Research on change, and resistance to it, more than supports the idea that getting anyone to "unlearn" is no easy task. As Bok (2006) wrote, "faculties are more likely to resist any determined effort to examine their work and question familiar ways of teaching and learning" (p. 334).

A broader discussion of organizational and individual resistance to change, teacher reasoning and decision making, the impact of globalization, and critical 21st-century pedagogy is developed in Chapter 2. This heuristic case study relied on participant

interviews, classroom observations, lesson reflection journals, and focus group data to determine how and why teachers are delivering instruction in the manner which they are.

The Purpose of the Study and Research Questions

In 1997, Nel Noddings wrote in an article entitled, *A Morally Defensible Mission for Schools in the 21st Century*, that “we have seen changes in work patterns, in residential stability, in dress, in manners, in music, and perhaps, most importantly of all, in family arrangements. Schools have not responded in an effective way to these changes” (p. 27). If that were true in 1997, given the acceleration in technologies (Friedman, 2016) over the past two decades and their impact on creating a globally connected culture, workforce, and economy, it rings even more true today. Because instructional patterns and practices in Bella Vista Middle School have remained largely stagnant, and similar to those described in the 2007 State School Improvement Plan (SIP) report which stated, “the use of varied instructional practices was minimal and teachers were presenting instruction and lessons that were considered to be at a low level of depth of knowledge,” I was more than curious to examine the knowing to doing gap (Freeman, Sugai, Simonsen, & Everett, 2017) that exists among teachers.

Therefore, the purpose of this qualitative case study was to deconstruct teachers’ decisions about the selection, development, and implementation of instruction in the pre-active stage of teaching and to illuminate considerations made for 21st-century skills and knowledge by middle level educators at Bella Vista Middle School. Although there are common strands that run consistent through several 21st-century frameworks as well as varying definitions, for the purpose of this study, when 21st-century skills and knowledge

are referenced, I reference the framework established by The Partnership for 21st Century Skills or P21 framework (see Figure 1).



Figure 1. Partnership for 21st Century Skills Framework (P21, 2019).

This framework focuses on the following four themes and skills:

- 21st Century Themes: global awareness, civic literacy, health literacy, financial, economic, and environmental literacy.
- Information, Media, and Technology Skills: Information, media and ICT literacy.
- Life and Career Skills: Flexibility and adaptability, initiative and self-direction, social and cross cultural skills, productivity and accountability, and leadership and responsibility.
- Learning and Innovation Skills: Critical thinking and problem solving, communication, collaboration, and creativity and innovation (P21, 2019)

Further discussion of 21st-century skills and learning is discussed later in this chapter as well as in Chapter 2.

I found it critical for the purpose of this study to clearly define pre- and post-active phases of teaching. Tsui (2003) clarified pre-active versus interactive decisions where “the former refers to the period before teaching when teachers are planning the lesson and evaluating and selecting teaching methods and materials; the latter refers to the time when teachers are interacting with students in the classroom” (p. 22). According to Parmigiani (2012), data indicate that during the pre-active or planning stage of teaching, teachers’ decisions are focused on students’ characteristics and methodology. It was necessary for participants to understand the distinction between pre-active, interactive, and post-active decisions. The research questions served to guide the direction of the study regarding my intention to deconstruct teachers’ decisions.

Research Questions

The following central question and sub-questions were formulated as follows: What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?

- 1) What teaching decisions do teachers make in the pre-active stage of teaching within the standardization movement that drive curriculum and instruction?
- 2) How do teachers address the needs of diverse learners in the pre-active stage of teaching?
- 3) How do teachers plan for teaching 21st-century knowledge and skills in the pre-active phase of instruction?

The Teaching Process

For the purpose of this study, I needed to establish the three stages of the teaching process that are interrelated and connected as shown in Figure 2



Figure 2. Three stages of the teaching process.

The pre-active stage (Penso & Shoham, 2003) is when the teacher is planning the lesson, gathering resources, creating activities, making decisions about instructional strategies, and thus designing the way in which the lesson will be unpackaged to the students. The active stage, or interactive stage (Gun, 2014) of teaching is the actual teaching of the lesson. The teacher unpacks the lesson according to created plans. And finally, the post-active stage (Penso & Shoham, 2003) of teaching is the period after the lesson has been completed. Teachers in this phase should be using both anecdotal and formative assessments to review and assess instructional effectiveness. It was important to operationalize the three stages, as they not only served to provide critical knowledge of the teaching process, but strengthen my understanding of the culture of teaching and the world in which it exists.

By deconstructing teachers' reasoning with regard to instructional practice and making meaning of the patterns of considerations teachers associate with instructional delivery, instructional leaders will be better able to: (a) provide professional development opportunities that promote effective pedagogical practice, (b) facilitate and promote reflective practices within individual teachers, (c) understand core issues and fundamental

barriers to effective pedagogy, and (d) facilitate curricular and pedagogical alignment with regard to 21st-century concepts and skills.

Exploring the research questions with regard to teachers' decisions in the pre-active stage of teaching required an analysis and integration of personal assumptions, experiences, and published literature that provided the foundation for the theoretical context of the study. The theoretical framework is described in the following section.

Theoretical Framework

The theoretical framework, as Maxwell (2013) described, is “the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research—[it] is a key part of your design” (p. 39). Sekaran (2000) defined theoretical framework as a conceptual model of how the researcher theorizes the connection between the several factors that are critical to the problem. The framework which follows encompasses my collective beliefs, assumptions, and theories, not only informing my study, but shaping how I responded, interpret, and made meaning of the phenomenon being studied. The conceptual framework explains, in narrative or graphic representation, what it is to be studied and how it is presumed the phenomena are connected and inter-related (Miles, Huberman, & Saldaña, 2013). The design of the qualitative case study included mental constructs, ideas, and beliefs that I hold about the influence our educational structure has on the practice of classroom instruction and how that model continues to persist and influence practice today, often to the detriment of learning.

In heuristic research, Moustakas (1990) wrote, “the investigator must have had a direct, personal encounter with the phenomenon being investigated. There must have been actual autobiographical connections” (p. 14). The autobiographical connection with the

phenomenon is my 18 years of educational experiences, observations, and reflections, as well as research in the areas of pedagogy, instructional leadership, and 21st-century curriculum collectively, resulting in my personal fundamental and core beliefs about education and classroom practice. These beliefs include: (a) education and educational practices have remained relatively stagnant over the past century; (b) corporate capitalism helped shape a self-preserving bureaucratic structure of education which continues today; (c) a more globalized world means that there are new challenges for education and the students it serves; and (d) a teacher's beliefs about instruction are strong and may create barriers to change. These assumptions serve as the foundation of context knowledge informing and shaping my theoretical framework. This framework helped to establish a solid context from which to satisfy the purpose of this study, which was to deconstruct teachers' decisions in the pre-active stage of teaching to illuminate considerations teachers make for teaching 21st-century skills and knowledge.

To ensure the study was properly informed, literature was reviewed in four areas. These areas include the historical influence of corporate capitalism on the structure and leadership of the American educational system, globalization and education, 21st-century pedagogical practice, and resistance to educational change. The rationale for including these areas of focus was derived from the need to understand which forces have—and continue to have—influence over our schools and the teachers in them.

Reviewing the historical influence of corporate capitalism and its continued impact on the American educational system gives context to the structure of education as it exists today. Our system was predicated on the idea of assimilation, amalgamation, and unification of large groups of immigrants that steadily flowed into the United States at the turn of the

century. Given the reality that our system continues to educate students in similar patterns, with similar structures and similar practices, it was critical that the study be informed through the historical lens which offers insight into current realities. The review of research regarding globalization and the new educational imperatives served to juxtapose the hegemonic structure of education with the global dynamics outside of it. This review of literature served not only to inform the study about what 21st-century pedagogy is needed to ensure students are marketable and competitive, but also to highlight how lethargic to change the American educational system has been.

Finally, as it is my contention that even though the education system is slow to adapt, individual classroom teachers are, even in the context of the standardization movement, in a place to be responsive to 21st-century demands. The review of literature on organizational and individual change brings to light, in part, why our system and the teachers in it have been slow to respond. An understanding of critical research in these areas was intended to not only better situate the study in a strong foundation, but to give insight into the realities as they currently exist in education, while highlighting challenges educators face in implementing crucial changes going forward.

The Historical Influence of Corporate Capitalism on the Structure of the American Educational System

It is important to provide a conceptual framework that is grounded in historical perspective with regard to how the established bureaucratic structure of our educational systems continue to influence teaching and learning today. Given that schools are bureaucratic organizations, their structures, procedures, and bureaucratic hierarchies are the main working components of a school's structure (Kilinc, 2016). Hoy and Sweetland (2001)

expressed, “it is safe to argue that organizational rules reinforce employee compliance behaviors, punish those who do not abide by rules, and closely control employee behavior” (p. 2). Kilinc’s (2016) quantitative study in which 252 teachers in 15 primary schools were administered a three-part survey, found that “bureaucratic school structures are an important influential variable for teacher self-efficacy levels” (p. 8). Teacher self-efficacy is, by definition, the teacher’s perceptions about the skills they possess to improve student learning. School structures and bureaucracy have such a strong influence on the way teachers feel about the work they do; clearly organizational bureaucracies perpetuate beliefs and practices that persist in schools and influence classroom practice. Sinden, Hoy, and Sweetland (2004) pointed out that there were negative teacher perceptions regarding innovative behaviors in many bureaucratic organizations. Hindering school structures have a negative impact on the ability of that organization to bring about change, innovation, and collaboration, thereby limiting school improvement (Hoy & Sweetland, 2001). Providing this review of how bureaucratic structures have and continue to influence the current state of education highlights the critical need for reform. Schools will need to reevaluate their educational missions in light of the hyper-globalized world, changing labor markets in a post-Fordist economy, and new skills that include the ability to adapt to rapidly changing job demands (Burbules & Torres, 2000). Students today must be ready for the globalized world our educational system was not designed to address.

Globalization and Education

Globalization, in its simplest form, refers to changes that transcend national borders (Astiz, Wiseman, & Baker, 2002). Globalization is not a new phenomenon; however, this phenomenon has taken on new characteristics that are redefining needs for citizens. Clothey,

Mills, and Baumgarten (2010) wrote, “Advanced skills and specialized knowledge are deemed essential for the new ‘knowledge society’ shaped by the global economy” (p. 305). Educators and educational institutions have the unique challenge of preparing students for jobs using technologies that do not yet exist. Case in point, had a 1971 Volkswagen Beetle advanced in its capabilities at the same rate as micro-processors, “today, that Beetle would be able to go about three hundred thousand miles per hour. It would get two million miles per gallon of gas, and it would cost four cents” (Friedman, 2016, p. 36).

The emergence of a hyper-developing global market and the outsourcing of manufacturing has made finding work without an advanced degree or specialized training difficult if not impossible. This is supported in what Astiz et al. (2002) refers to as economic globalism, defined as a “global market operating across and among a system of national labor markets through international economic competition” (p. 67). Opportunities once afforded to students post-graduation in the manufacturing sector are no longer realistic in today’s competitive labor market. According to Hardy (2008), by 2030 nearly “half the projected job growth will be concentrated in occupations associated with higher education and skill levels. The overall number of college graduates the United States is producing as a percentage to total college graduates globally has dropped almost 50 percent” (p. 19). Couple this with a national dropout rate of 30 plus percent (Wise, 2008), and one begins to see the dilemma faced by the American educational system. Research on the effects of globalization has shown youth in Western cultures experience higher rates of depression by 15–24% (Bashir & Bennett, 2000). As schools continue to address social emotional learning and mental wellness, the impact globalization is having will need to be addressed.

As markets become more competitive, our schools are continuing to educate fewer students capable of success, past their secondary educational experiences; teacher education programs must respond accordingly. Universities do not exist in a vacuum; as institutions, they are increasingly affected by global changes (Boni & Calabuig, 2015). The rise of globalization requires the development of an international perspective on education (Ferguson, 2008). Students from diverse cultural, linguistic, and racial/ethnic backgrounds comprise 30% of the K-12 school-age population in the United States. (Gay, 2010). “Whereas education was once the traditionally local social institution, the education system now faces significant strains to teach and prepare students for a society they will face as adults” (Zhao, 2010, p. 423). When educators define 21st-century pedagogy, clearly there is a critical need for culturally responsive pedagogy to be included in this definition.

Culturally responsive pedagogy requires teachers to understand and recognize culture in a way that is often overlooked or at best incomplete. “Successfully teaching students from culturally and linguistically diverse backgrounds—especially students from historically marginalized groups—involves more than just applying specialized teaching techniques. It demands a new way of looking at teaching that is grounded in an understanding of the role of culture and language in learning” (Villegas & Lucas, 2007, p. 29). According to Samuels (2018), “culturally responsive pedagogy is characterized by teachers who are committed to cultural competence, establish high expectations, and position themselves as both facilitator and learners” (p. 23). And although America’s classrooms continue to become more diverse in demographics, classroom teachers often feel ill-equipped to effectively and successfully meet the needs of diverse learners (Samuels, Samuels, & Cook, 2017).

Teacher preparation programs have not sufficiently met the challenges of today's globalized world (Kelly, 2004). In short, teachers' global competencies need to keep pace with the demands of the globalized world in which they find themselves. A qualitative study was conducted by Xin, Accardo, Shuff, Cormier and Doorman (2016), in which 118 teacher candidates enrolled in a graduate-level methodology course. They were surveyed to determine levels of global competency. The study concluded that when global perspectives were embedded into the curriculum, there were significant changes in students' perspectives in the following areas: investigating the world ($p < .55$); recognizing perspectives ($p < .51$); communicating ideas ($p < .56$); and taking action ($p < .51$) (Xin et al., 2016). Clearly, global competencies and 21st-century pedagogies need to be a part of the curriculum students receive in order to ensure they are ready to meet the challenges of a hyper-globalized world

21st-century Pedagogy

The new challenges of globalization require educators to rethink our educational systems and how educators carry on the business of educating students. Although education has undergone many attempts to realign and transform, according to Wise (2008), "national efforts have, for the most part, simply propped up an antiquated system instead of rethinking and repairing it" (p. 10). Globalization is going to force education and educators to rethink what it is students need to know and be able to do. According to Dillon (2007),

Pressures of globalization will certainly continue [and] call for a different approach to learning. Students will not be focused so much on collecting information, as mastering the ability to analyze, interpret, and utilize it. Content will continually change, requiring students to develop skills to accommodate these changes. (p. 36)

Not only will contemporary educators need a new and better approach to learning; they must learn a new and better way of teaching. To do that, educators must understand our individual

and collective mental models and how those experiences shape who we are, what we do, and how we teach. As educators, we must reflect on paradigms and beliefs perpetuating our resistance to altering long held practices.

Global competency needs to be a part of the curriculum students receive in order to ensure students are ready to meet the challenges of a hyper-globalized world. There are several frameworks that have been created to facilitate the teaching of 21st-century skills, such as: The Partnership for 21st Century Skills (Twenty-first Century Skills, 2007), Tony Wagner's Seven Survival Skills (2008), the Iowa Core 21st Century Skills (Wagner, 2010), and the Assessment and Teaching of 21st Century Skills (ATCS, 2012). Although these frameworks differ slightly, they all share the following elements critical for student development. These areas include (a) collaboration and teamwork, (b) creativity and imagination, (c) critical thinking, and (d) problem solving (Envision, 2018). Traditional subjects are and will continue to be important; however, educators cannot ignore the impact of technology in every aspect of our students' lives. Students will need new skills to be able to evaluate and critically synthesize information and the source of that information for meaning and accuracy (Griffin, 2013). To be literate in the 21st century, skills and knowledge must go well beyond simply reading.

The International Literacy Association (ILA) noted that for students to be considered fully literate in today's world, students must become familiar in 21st-century digital and technological literacies (ILA, 2019). Because new 21st-century technologies will continue to impact education, teachers' understanding of both digital literacies and technological integration is critical to ensure pedagogy stays relevant (Martinez & Pilgrim, 2015). Therefore, it is critical for teachers to have a working understanding of these literacies and

be able to teach to them. Many teachers in classrooms today do not possess such an understanding.

Martinez and Pilgrim (2015) conducted a mixed methodology study in which they collected both qualitative and quantitative data from 43 members of the Texas Association of Literacy Education (TALE) to determine teachers' ability to define terms related to digital literacies. Qualitative data were collected and coded from the open-ended question interviews conducted with the co-researchers. Although 66% of participants reported they believed technology should be integrated into classroom practice, the study found that only 43% of participants could clearly define the term "new literacy," and only 60% could provide examples of "new literacy" skills.

Any discussion about 21st-century education should also turn the scope of examination inward to the persistent tensions that exist within this discussion and highlight the continued influence of market forces to shape and drive the educational system and even curricula that are established and distributed. "Wedded to the belief that the market should be the organizing principle for all political, social, and economic decisions, neoliberalism wages an incessant attack on democracy, public institutions, public goods, and noncommodified values" (Giroux, 2016, p. 2). A prominent example of the tensions at work is the notion that future market demands will dictate careers with STEM (Science, Technology, Engineering, and Math) requisite skills and knowledge and push the focus of school curricula to this end. Technocratic rationalities play a part in reducing teacher autonomy with regard to curriculum creation and instruction. Teacher-proof curricula packages reduce teacher work to simply carrying out predetermined content and instructional delivery (Giroux, 2013). In this conservative model, analytical and critical

thinking is seen as dangerous because it perpetuates a rejection of authority replaced with self-reliance and judgment (Robinson, 2012).

The discrepancy between how kids learn inside the formalized world of their schools—which includes patterns of practice and structures, complete with bells, rigid schedules and drills—and the nonlinear amorphous types of informal learning that exist outside of education will have to be reconciled (Davidson, 2011). As difficult as rapid change may be, educators must break the cycle of hegemonic practices and redefine what it means to be well-educated in the 21st-century world.

Resistance to Instructional Change

Classroom educators develop ideas and beliefs based on their own experiences with regard to schooling which, in turn, shape their practices in the classroom. Many of the decisions teachers make with regard to instruction are intuitive and not based on data. In fact, research has pointed out that data use in schools continues to be limited (Schildkamp & Ehren, 2013). When I observe middle level educators in the classroom, I often see evidence of teachers relying on instructional practices that are universally accepted within the building culture as “effective” but which have not been measured for their effectiveness. Even though there is regular professional development for best practice, teachers continue with patterns of instruction that are generally considered ineffective. When individuals are presented with new information, they will validate or invalidate this based on their existing mental models. By doing this, teachers do not have to reform their established beliefs about teaching and learning (Duffy, 2003). Teachers, as well as others, have the tendency to interpret things confirming and supporting existing beliefs while avoiding data that is contrary to those held beliefs (Kahneman & Fredrick, 2005). This confirmation bias also

suggests that not only do teachers avoid data that are contrary to their beliefs; teachers may also interpret new data in a way that makes it consistent with prior beliefs (Vanlommel, Van Gasse, Vanhoofer, & Van Petegen, 2017). In this fashion, instructional bias becomes a barrier to sustained instructional change.

Teachers' own experiences within education are responsible for the creation of their educational mental models. These models and beliefs shape how educators practice their craft. Because teachers search for information, techniques, and philosophies to support existing beliefs, teachers will often draw the same conclusion over time because the lens with which they view education does not change. The idea of reflective practitioner is then lost, and according to Kise (2006), "reflective practices may only reinforce those mental models unless teachers receive outside perspectives and information" (p. 47). The strength of one's personal mental model and the role it plays in shaping our actions as educators is evident in the account of one teacher's frustrations as his department underwent curriculum revision:

"If you guys want to save any resemblance of what World History is, I suggest you get over there," said Roy, who is a senior member of his department.

"Why?" asked another department head.

"They're changing the way we teach World History," replied Roy (T. Snelling, personal communication, January 2, 2006).

Roy's objection to changing the scope and sequence, and to teaching the discipline in a thematic way, was in conflict with his established mental models. People do not resist change; they resist being changed. Events that are linked in memory with a sense of powerlessness and disrespect of prior knowledge and experience are not likely to be well

received (Sparks, 1997). This is consistent with Snyder's (2017) qualitative study about veteran teacher resistance to change. Nine veteran teachers who were over 50 years old and had taught for over 20 years in both rural and urban districts were interviewed through semi-structured interviews which provided the phenomenological experiences of each of these teachers. Findings from this study concluded that veteran teachers resist change negatively impacting social nostalgia, such as relationships, or decreasing political nostalgia, such as control over curriculum and pedagogy. Roy's hesitation to a curricular change was likely in response to his loss of political nostalgia.

The difficulties of change within humans are well documented, and much of this information about change management and theory served to inform the literature review. Several factors causing teachers to resist instructional change, such as motivation and low levels of knowledge and experience, can contribute to a teacher's difficulty in reflecting and changing practice (Hunzicker, 2004).

The theoretical framework of this study brings to the forefront the assumptions I hold and provides theoretical reasoning to support my selection of empirical literature related to the historical influence of corporate capitalism on education, globalization and its influence on education, 21st-century pedagogy, and resistance to educational change. These areas of focus make up the literature review and also served to help make meaning of the collected data of the five participants. An expanded discussion of this theoretical framework is visited in the review of literature in Chapter 2.

Design and Methods Overview

The purpose of this qualitative case study was to understand teachers' decisions about the selection, implementation, and development of instructional practices in the pre-

active stage of teaching to illuminate considerations made for 21st-century skills and knowledge in one Midwestern middle school setting. The unit of analysis for this study was teachers' pedagogical decisions in the pre-active stage of teaching. The blended use of heuristic inquiry, a form of phenomenology, and constructivism formed the foundation of qualitative inquiry and research utilized in this study. According to Yin (2003), "the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken and how they were implemented, and with what result" (p. 23). A case study design promoted a deeper understanding of the participants' lived experiences with the unit of analysis

Site and Participation Selection

The research setting that was selected for the study was the one that I am most familiar with, as I have worked in this building for the past six years as an administrator. The setting for the study is a large middle-school with urban characteristics (Schaffer, White, & Brown, 2018) with a reported student population of 626 students. Seventy-four percent of the families at this school qualify for free and reduced lunch. The student demographics include 62% black, 18% white, 10% multi-racial, and 10% Hispanic. This site has one of the highest transient rates of any of the secondary buildings in the district, with 110 new students joining the district for the first time. The school district is positioned near a large urban district and has experienced significant population shifts over the past decade. The school is reflective of the larger community with regard to socioeconomic factors and diversity.

The surrounding area is a combination of older single-family homes and multi-family housing in close proximity. The school itself has seen a multitude of administrative

changes over the past five years with a new principal, five different associate principals, and a majority turnover in staff during this time. There are fewer veteran and experienced teachers remaining in the building. The average teaching experience is 9.1 years compared to the state average of 12.6 years of experience. Only 38.6% of certified staff at Bella Vista Middle School have obtained advanced degrees, while the state average is a little over 50%.

I used purposive sampling to select five participants for the study, maximizing sampling and highlighting perspectives on the phenomenon being studied (Creswell, 2013). Purposive sampling relies on the judgment of the researcher to select participants, and it is this familiarity with teachers and the culture in which they exist that I utilized to select participants who were able to provide a unique insight to the phenomenon being studied. The goal of purposive sampling was to focus on characteristics or criteria of a population that are of significant interest, which allowed me as the researcher to better explore and answer the research questions (Patton, 2015). I wanted to illuminate teachers' voices as they related to the phenomena this study was designed to explore. Laverly (2003) cited the importance of integrating participants that have an intimate experience with the phenomenon being studied. Too often, teachers' voices are underutilized in serious reform efforts. Lew (2008) stated, "it is an uncommon practice to find teacher voice at the heart of any renewal effort with regard to instructional practice and student learning" (p. 12). In utilizing teachers' voice, I hoped to build a detailed, thick description of teachers' reasoning with regard to the creation, selection, and implementation of instructional practices.

The research design purposefully selected teachers who met the initial following criteria:

- Current teacher at Bella Vista Middle School

- Three or more years teaching
- Teaches English Language Arts, Mathematics, Social Studies, or Science
- Agreed to participate in the study
- Participants would not be evaluated by me or reassigned to assistant principals for the 2019—2020 school year.

The participants of the individual case studies were individually and collectively interviewed and observed, thus providing a common framework from which to conduct cross-case analysis of the participants' realities as they exist within the phenomenon. The researcher, through cross-case analysis, according to Yin (2003), worked "to build a general explanation that fits each of the individual cases, even though the cases will vary in their details" (p. 112).

Data Collection

Multiple data sources for this case study were utilized to more specifically reveal the essence of what the study sought to uncover, but also this crystallization of multiple data points enhanced data credibility (Patton, 2015; Yin, 2009). "Crystallization provides us with a deepened, complex, thoroughly partial, understanding of the topic. Paradoxically, we know more and doubt what we know. Ingeniously, we know there is always more to know" (Ellingson, 2009, p. 3). Multiple data points provided a more complex and deeper understanding of the unit of analysis.

Data sources included in this study were semi-structured interviews, classroom observations, and lesson plan reflection forms. Initially, one 55-minute classroom observation was conducted with each of the participants. I utilized the observation protocols to guide my notes, observations, and reflections. One-on-one interviews with teacher

participants helped me to uncover their thinking with regard to curriculum and instruction planning prior to delivery and revealed patterns that gave insight into the research questions from their unique experience and interactions with the phenomena. In addition to semi-structured interviews, I reviewed lesson plan reflection forms that each of the co-investigators filled out for five days of instruction. These lesson plan reflection forms captured the essence of teacher planning and revealed through their instructional actions the reality of inputs used to inform teaching decisions and their perceptions of the skill and themes from the 21st Century Framework present in those lessons. I then reviewed the themes that emerged from cross-case analysis with the participants in a focus group interview. This final focus group interview gave participants an opportunity to ask questions, add thoughts, and make further recommendations. The data yielded from this focus group interview added validity and further insight into the cases and research questions.

Data Analysis

In qualitative studies, it is common for data analysis and collection to happen concurrently. Early data analysis helps the researcher continue to reflect on the existing data and develop strategies for collecting further data to inform the study as it progresses. The data analysis process involved the integration of the six phases of heuristic inquiry Moustakas (1990) described, which involve “initial engagement, immersion, incubation, illumination, explication, and culmination of the research in creative synthesis” (p. 27). Data were coded for the purpose of identification, synthesis, and retrieval (Grbich, 2013) using NVivo 12 Qualitative Data Analysis Software. (2019). Coding, according to Miles, Huberman and Saldaña (2013), “is also heuristic—a method of discovery. You determine

the code for a chunk of data by careful reading and reflection on its core content or meaning. This gives you intimate, interpretive familiarity with every datum in the corpus” (p. 73). By looking at recurring regularities in the data, it can then begin to be sorted into categories (Patton, 2015). The emergence of descriptive themes yielded the essence of the phenomenon studied. Understanding how the co-researchers in this setting have constructed reality helped me as the researcher glean insight into the phenomenon. The observations, participant interviews, and lesson reflection journals were analyzed with regard to the research questions. Chapter 3 provides a more detailed description of the data sources and design elements.

Significance of the Study

Given the fact that our hyper-globalized world continues to force educators to reevaluate and redesign the way they systematically educate our students to ensure students meet the demands of the ever changing labor market, it is critical to understand intimately the decisions teachers make with regard to 21st-century instruction. This globalized labor market requires new skills, new technologies, and new systems thinking. Employees are required to take risks, to be innovative and self-reliant, and to problem solve (Wagner, 2008). Just as our global labor markets require new skill and thinking, so must our educational systems. Educators must reimagine conventional educational institutions to meet the needs citizens will face (Cookson, 2009). Practices inside classrooms have not changed radically enough to ensure students are prepared to face the challenges their post-secondary lives will present to them.

The Center on Standards and Assessment (CSAI) stated an overwhelming majority of college instructors (78%) reported that public high schools are not preparing graduates to

meet the expectations facing them for college (CSAI Report, 2016). Data released from the most recent Program for International Student Assessment (PISA) show results that point to a struggling educational system. Our nation's middle and secondary students ranked 19th in science, 20th in reading, and 31st in mathematics out of the 35 Organization of Economic and Co-Operative Development (OECD) countries who participate. Systematically, traditional instructional methodologies persist to the detriment of college and career readiness.

As cited earlier in this chapter, walkthrough data collected from over 160 classroom observations at Bella Vista Middle School revealed that 73% of the time students were listening or working independently. This type of didactic instruction is more consistently found in predominately high poverty schools attended by African American and Latinx students (Diamond, 2007). Given that in the study site, African American students make up 62% of the student population, Diamond's work helped to explain the present instructional realities. For students to be able to develop 21st-century skills and thinking, teachers must more frequently scaffold complexity and rigor in classrooms to get students to do just this. Simply listening or idly completing independent seat work 73% of a school day is not the recipe for the types of critical thinking and creative collaboration 21st-century students require, and it falls far short of preparing students to be college and/or career ready.

Individual teachers and building instructional leaders must take up this task, as it is what they do on a daily basis that can most significantly bring about pedagogical change. In a report entitled *Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability*, the United Nations Educational Scientific and Cultural Organization (UNESCO) placed an emphasis on teacher education, as education is the center of creating a

more sustainable future, and teachers are in the place to shape better educated future generations (UNESCO, 2005). Teachers are obviously at the epicenter of the college and career readiness process, and the beliefs they hold and bring with them greatly impact their effectiveness. For example, self-efficacy, defined as an individual's beliefs and judgments of one's capabilities, has been recognized as an important factor that significantly influences student achievement and behavior (Skaalvik & Skaalvik, 2007; Tschannen Moran & Woolfolk Hoy, 2001).

I suggest that it is critically important then for instructional leaders to understand teachers' decisions and judgments with regard to their pedagogical practices. Deconstructing teachers' decisions about lesson creation and delivery will give instructional leaders insight as to what considerations are attributed to both effective and ineffective practice in the pre-active stage of teaching. Understanding teachers' motivation and reasoning with regard to incorporating 21st-century pedagogy in the classroom will help educators to better prepare students to face the challenges of a globalized labor market and take on their role as global citizens. This information will also be an invaluable tool as administrators begin the transformational tasks aimed at promoting and sustaining effective pedagogical change more accurately reflecting the needs of 21st-century learners.

The target audience for this study includes educational leaders, curriculum coordinators, and teachers in the United States. This study provided an insight into the factors influencing teachers' decisions as they are planning for instruction which allowed for educators to more intentionally manipulate instructional decisions that are counterintuitive to critical 21st-century teaching and learning.

In Chapter 2, I provide a comprehensive discussion of related studies as well situate the evolution of the educational system of the United States within a historical context. Together, the background context and relevant studies served as the foundation for this inquiry. Chapter 3 includes an overview of the study of methodology, including the rationale for qualitative research, the design of this study, and its limitations. Ethical considerations present in this study were addressed and brought to light. Chapter 4 reports the findings of the study, and, through cross-case analysis of data, provides a springboard for answering the research questions. The study concludes with Chapter 5, which addresses answering the research questions, offers implications and recommendations regarding the findings, and suggests areas for future research.

CHAPTER 2

REVIEW OF LITERATURE

This heuristic case study was further informed by addressing a variety of critical literature surrounding and connecting to the topic of deconstructing teachers' decisions about pedagogical practices in the pre-active stage of teaching in order to illuminate the considerations teachers make for both maieutic and didactic instruction in one Midwestern middle school. The review of literature focused on four main areas: the historical and socio-cultural context of school and school reform and its continued influence on educational systems; dynamics of individual and organizational barriers to educational reform; critical pedagogy for 21st century alignment; and teacher reasoning as it relates to lesson creation and instructional delivery.

Opening this review with a historical overview of education established the framework for the bureaucratic context in which the current state of education exists, thus providing a platform from which to analyze school reform efforts and their continued impact on schools and students. Analysis of research about dynamics of individual and organizational change highlights just how organizations and individuals respond to change agents and further elucidating other factors impacting pedagogical practices and beliefs. Considerations of critical pedagogy for 21st century alignment provided the necessary context from which to critically evaluate current practices and offered a roadmap for educational change. Finally, Chapter 2 concludes with a comprehensive review of the research about teacher reasoning with regard to instructional planning and delivery.

Through peer reviewed articles, dissertations, books, and supporting literature sourced from humanities, social sciences, and education databases including Google

Scholar, ProQuest, and Ebscohost, informative literature was abounding in all areas with the exception of teacher reasoning. Despite numerous search terms including teacher reasoning; teacher decision making; instructional decision making; and spontaneous, intuitive, and deliberative decision making, to name a few, current research in this area remained difficult to obtain. Search results of teacher decision making were more prevalent in years dating from the 1970s through the early part of the 1990s. I speculate that this coincides with the transition and rise of standardization and accountability movements inside education. Searches regarding school reform yielded over 20,000 results with books, articles, and journals spanning the past quarter century.

My goal, through this literature review, is to understand more completely the structural and hegemonic forces influencing classroom practice today, while gleaning insight into the construct of middle level educators as they make decisions about instructional practice.

The Historical and Socio-cultural Context of School and School Reform and its Continued Influence on Educational Systems

As portions of this study were concerned with organizational behaviors and the bureaucratic nature of educational systems, it is important to place in context the social and historical conditions in which our current educational system was conceived. Viewing education from a historical and social lens provides a platform from which to deconstruct the creation, purpose, and function of education as it was intended and how it arrived in its contemporary state. Framing education through a historical lens, Nehring (2009) wrote, “allows us to see the whole story from beginning to end. Such omniscience, impossible in the schools we inhabit today, is one of the great attractions of history as a source of

knowledge about contemporary challenges” (p. 14). Examining this framework is critical to begin the review, as it is a lingering mechanism of systematic education still continuing today, much to the detriment of our students.

The American educational system, as it is well documented, in the early part of the 20th century, was unrivalled by any other in the world. This system successfully served millions of immigrants who made their way to this country where they were not only taught to speak, read, and write in their new language, but were also acclimated, socialized, and prepared for roles suiting the needs of the manufacturing industry. Notably, this same paradigm influenced schooling for African Americans and First Nations People, leading me to a thorough examination of the socio-cultural processes of school reform, how those same factors shape reform movements today and their impact on students.

Manufacturing’s Influence on School Reform

The fundamental principles of democracy and free enterprise were working in unison to transform the political, economic, and social landscape of this country in the early part of the 20th century. Although in reality, the opportunities of democracy were denied to most in this country and the economic opportunities available provided for a miserable existence at best, it was the glorification of these ideals that attracted millions of immigrants. This mass European migration contributed to rapid urbanization and fueled the industrial machine’s need for a large labor force.

At the turn of the century, the face of the nation was changing; roughly 14 million European immigrants converged on the United States between 1896 and 1920. A drastic decrease in the percentage of workers in agriculture, from 50% in 1870 to 27% in 1920, shows not only the shift of labor but also the transition of the economy from agrarian to

industrial (Takaki, 1993). Two significant questions central to the discourse of education and educational reform at the turn of the century were related to the function and purpose of education and who should control and influence educational institutions. Given the prevalence of capitalism and industrialization, it is no surprise the answers to these questions would have their foundations in both. The role of corporate capitalism in education in the early part of the 20th century is well documented. In his book, *Education and the Cult of Efficiency*, Callahan (1962) wrote in the early 20th century “the business ideology was spread continuously into the blood stream of American life. . . it was, therefore, quite natural for Americans, when they thought of reforming schools, to apply business methods to achieve their ends” (p. 132).

Over 100 years later, big business and its influence to narrow school curriculum and instruction, diminishing learning opportunities for children, continues (Kozol, 2005; Nehring, 2009; Tyack & Cuban, 1996). The manufacturing and corporate educational reform agendas that persist today, according to Gorelewski (2013), rely on “business metaphors of efficiency through debureaucratization, competition, choice, monopoly, and failure” (p. 61). According to Sahlberg (2011), these reform movements rely heavily on standardized testing and assessment, accountability and competition, divests joy from student learning, and is wrong for education.

Nehring (2009) wrote:

The history of public schooling in the United States may be understood as the tragic misapplication of industrial thinking to human growth and learning. That we continue to conceive of schools in terms of industry even in a post-industrial society speaks to the enduring power of the manufacturing metaphor to make satisfying sense of the world. (p. 3)

When one thinks of school reform, larger reform initiatives such as No Child Left Behind (NCLB), Individuals with Disabilities Act (IDEA), and Race to the Top, to name a few, are the ones that tend to come to mind. However, what is less obvious is how manufacturing or market-initiated reforms (Nehring, 2009; Saltman, 2011) impact teaching and learning. Teaching becomes deskilled and generalized as curriculum becomes a pre-manufactured product that is to be regurgitated and delivered to students. The focus on testing has resulted in an environment that has become increasingly boring and disconnected from students' lives and sense of future (Beaulieu, Sparks, & Alonzo, 2005). Kenneth Saltman (2011) addressed this manufactured pedagogy in what he established as *The New Market Bureaucracy in the U.S. Public Schooling*. To this point, Saltman stated:

Teaching becomes robotic, less about intellectual development and more about adhering to prescribed methodological approaches. Such prescriptive methodologies also disallow a focus on the specific educational content and student experience, rendering critical pedagogical approaches impossible. While critical pedagogies aim to expand understanding of the production of both knowledge and subjective experience, prescriptive methodologies aim to decontextualize knowledge and reduce comprehension of experience of the individual. (p. 62)

New market positivism reforms, which are characterized by standardized testing, standardized curriculum, and expansion of privatization, has been revitalized in this new era. Standardized, high-stakes testing offers the promise of certainty in a world rendered abstract through the principle of capitalist exchange applied everywhere (Adorno, 2000). Test scores and letter grades allow for the stratification to continue along historically prescribed lines. Market demands need a matrix with which to assign people to various stations on the social ladder (Garrison, 2009).

No Child Left Behind (NCLB), with its standardized and high-stakes testing, aimed to close the achievement gap between students of color and their White counterparts, with

the goal, according to Torres (2008), “to ensure that we do not have a two-tiered approach to educating our children in public schools, an expectation for those who ‘have’ and a separate set of expectations for those who ‘have not’” (p. 236). Pickney (2008) stated, “the NCLB policy also makes a strong case for the presence and effect of cultural and ideological differences” (p. 167). Several years after its implementation, NCLB has had a pernicious effect on students of color, educators, and urban communities (Green & Gooden, 2014; Nehring, 2009). The very problems NCLB reforms were created to resolve with regard to adequacy and equity, unfortunately, persist today. Saltman (2011) stated:

In the current dual system, elite public schools in rich, predominately White communities prepare managers, leaders, and professionals for the top of the economy and the state, while the underfunded public schools in poor working class, and predominately non-White communities prepare the docile, disciplined workforce for the bad jobs at the bottom of the economy and for exclusion from the economy altogether. (p. 68)

If NCLB and its reauthorization were reforms designed to close the achievement gap, rather than perpetuate it; ensure parity and equity, rather than draw contrast and further stratify, then a look into the organizational structure in which these reforms exist is warranted. Institutional Theory, according to Heck (2004) “focuses on the influence of institutions” (p. 152). While Pickney (2009) maintained that Institutional Theory “incorporates a means to understand ideology and values, especially of the dominant culture, and how power is wielded to translate those ideas and values into policy” (p. 168). Before continuing the review of literature regarding the impact school reform efforts have had on urban schools and funding, it is critical to review the historical context of the institutions that were created to educate African Americans and First Nations People.

Historical Context of Education for African Americans and First Nations People

At the turn of the century, the United States was faced with unparalleled social and economic problems. Heck (2004) stated, “the sources of conflict are always rooted in differences in ideology, i.e., difference in beliefs about the way social, economic and political systems should be organized and operate” (p. 152). Strife along racial and ethnic lines, conflicts between worker and employer, mass immigration, rampant poverty, overcrowding, and housing shortages characterized life for many in this country. Takaki (1993) wrote:

This dilemma of preserving racial hegemony while becoming a multicultural society perplexed policy makers of the new nation. They were especially concerned about two groups. “Next to the case of the black race with our bosom,” worried James Madison, “that of the red on our borders is the problem most baffling to the policy of our country.” (p. 83)

At the turn of the century, in an effort to assimilate groups into the dominant culture, educational systems were created and structured to do just that. “Historically, the social and educational institutions of American society have been molded and shaped by assimilation ideologies and monoculture perspectives” (Anderson, 1992, p. 137). Those perspectives include a belief in the superiority of the dominant White culture over people of color and First Nations People. Caruthers (2007) wrote, “the ideology of racial and cultural superiority protected the power and interests of philanthropies, business men, and planters whose self-interests, grounded in economics and political power, further marginalized Indigenous People and the freed slaves” (p. 306).

From the very founding of this country, the ideology of bigotry and racism persisted and is evident in the language of our most foundational of documents. In the list of grievances levied against King George III in the Declaration of Independence, it stated, “He

has excited domestic insurrections among us, and has endeavored to bring on the inhabitants of our frontiers, the merciless Indian savages, known rule of warfare, is undistinguished destruction of all ages, sexes and conditions” (Declaration of Independence, 2019, para. 29). Takaki (1993) wrote, “what emerged to justify dispossessing them was the racialization of Indian savagery. Indian heathenism and alleged laziness came to be viewed as inborn group traits that rendered them naturally incapable of civilization” (p. 38).

As the country expanded westward, so too did the policy of civilization or extermination. Stripped of their lands and forced to relocate to reservations, indigenous people became a colonized people in need of reformation. “Reforming Indigenous people would also include education; teaching Indigenous people the knowledge, values, mores, and habits of Christian civilization. The assimilation function of common schools made an ideal instrument for transforming the people and their ideologies” (Caruthers, 2007, p. 308). The ultimate goal was assimilation. “On the reservations, the government would subject them to a rigid reformatory discipline. Not allowed to escape work, they would be required to acquire industrial skills until at least one generation had been placed on a course of self-improvement” (Takaki, 1993, p. 233).

During the late 19th century, education was seen largely as the answer to the Indian question. “Determined to remold Indians into models of White, Anglo-Saxon Protestant society, government officials seized upon schools as the best way to make such changes a reality” (Ellis, 1994, p. 85). They were confident in the ability of the classroom to transform Indian children, reservation day schools, reservation boarding school, and off-reservation boarding schools (Caruthers, 2007), which became the means to deliver civility and assimilation to the now displaced Indigenous children. By the 1880s, Caruthers (2007)

wrote, “policy makers were convinced that the off-reservation boarding school was the solution for civilizing Indians and would address the Indian question” (p. 309).

Displacement, exploitation, and assimilation through education was not exclusive to Indigenous people in the United States. If there were a question as to what to do with the displaced Indians and how to best assimilate them into the dominant culture, then too, the same question existed with the freed slaves following the Civil War.

Blacks who had ascended from slavery felt compelled to become literate. To be able to read and write was a direct rebuke of the oppression of slavery and those that had enslaved them. “The former slave fundamental belief in the value of literature culture was expressed most clearly in their efforts to secure schooling for themselves and their children” (Anderson, 1988, p. 5). Long before the well intentioned northern philanthropic societies entered the South, some early Black schools had already been established. Post-Civil War, ex-slaves used these models to advocate for “free” or “public” schools that took the form of Sabbath schools. These Sabbath schools, which were church sponsored, were organized to provide a foundational curriculum of reading and writing (Caruthers, 2007).

Even after the Civil War, the cotton export sector continued to expand and the need of a large labor force persisted. Planter society had no intention of openly welcoming free education to the masses of former slaves and their children. Anderson (1998) wrote, “the planters reacted decisively to the freedman’s educational movement; they were opposed to black education in particular and showed substantial resistance to the very idea of public schooling for the laboring classes” (p. 22). Northern philanthropic groups worked to convince Southern planters that a more educated labor class would benefit their agricultural needs. Training former slaves to prepare as laborers would not only improve social and

industrial conditions for Southern Blacks, but it would also prepare them for socially expected roles based on race (Caruthers & Davis, 2006). The educational systems created in the South after the Civil War perpetuated the idea that Blacks were a product of inferior cultural evolution and not oppression (Caruthers, 2007).

The larger realization of schooling for Black children would not be significantly accomplished until Blacks migrated from the rural south to northern cities. By 1930, some two million Blacks (Takaki, 1993) had migrated to northern cities. This mass migration created other social and economic issues perpetuated by the tenets of racism and bigotry. Blacks were now competing for jobs with White immigrant groups. Inequities of opportunities, both economic and social, would plague the educational system indefinitely. The *Brown v. Topeka* ruling in 1954 was an attempt on the part of the United States Supreme Court to correct these issues. However, first-generation problems, which are characterized by those related to the physical desegregation of African American students, only gave way to second and third generation issues. Despite decades of attempts at educational reforms, issues of equal access, ability grouping, teaching bias, and achievement disparity (Caruthers & Davis, 2006) continue to linger in our educational systems today.

School Reform and its Impact on Funding Adequacy

Educators have entered an era of unprecedented influence on the part of big business in school reform (Bartlett, Kupzcynski, & Holland, 2011). “The skeletal remains of broken reform programs are scattered behind us. Each one once held the hope of reforming public schools and each one has shown little ability to alter routines and results” (Toch, Jerald, & Dillion, 2007, p. 3). Despite serious dollars being allocated to school improvement and reform efforts over the past two decades, the accountability movement, which is

characterized by standardized testing, standardized curriculum, and expansion of privatization (Adorno, 2000), has failed to transform urban schools of color (Anyon, 2005; Green & Gooden, 2014; Payne, 2008).

As stated earlier, the goal of the No Child Left Behind Act was to ensure that we do not have a two-tiered system of education with a set of expectations for the “haves” and a separate set of expectations for the “have nots” (Torres, 2008). However, under NCLB, the privatization of educational dollars, in the name of school choice, charter schools, vouchers, and Supplemental Educational Services (SES) has become increasingly common (McGuire & Ikpa, 2008). As more public school dollars are siphoned away, low performing schools are detrimentally impacted. According to McGuire and Ikpa (2008), “inadequate funding serves to increase the social, economic, and academic achievement gaps between urban and non-urban schools” (p. 4). Urban children are capable of achievement and academic excellence; however, additional assistance and programs may be needed (McGuire & Ikpa, 2008). With reductions of federal funding to public schools coupled with more and more public dollars being funneled to private SESs and Local Education Agencies (LEA), many urban districts are finding it almost impossible to do more with less. Hedges, Laine, and Greenwald (1994) wrote “When disparities in school funding exist on top of disparities in family income, it becomes clearer why there are such profound gaps in achievement between students from poorer backgrounds and those from wealthier homes” (p. 12). Their work about school funding found that a \$500.00 increase in average spending per student would increase achievement by 0.7 standard deviation (Hedges et al., 1994). Although funding, or a lack of it, cannot solely account for the failure or success of school districts with regard to student achievement, clearly the amount of funding a school district receives

makes a difference, and any reform efforts that divest funding from public educational entities is counterproductive to student success.

The reauthorization of NCLB, through inadequate funding and its provisions, reduced the federal government's commitment to public education by placing the responsibility of school improvement on SEAs (Pickney, 2008). In his work titled *No Child Left Behind; Where Does the Money Go*, Bracey (2005) documented concern for the number of Supplemental Educational Services that are moving public school dollars into the hands of nonpublic providers. Philanthropic organizations today, Nehring (2009) wrote, "can leverage the impact of humane and thoughtful school cause. Such national effort as the Coalition of Essential Schools and the Annenberg Institute for School Reform have benefited from the largess of private foundations" (p. 29).

Market-based reforms under former presidents Bush and Obama both pushed for free-market models of school choice and charter programs (Gorlewski, 2013). President Bush's No Child Left Behind Act was amended to add "support for the planning, program design, and initial implementation of charter schools" (U.S. Department of Education, 2006, p. 2). This marketization of public education can clearly be seen in New Orleans after Hurricane Katrina. The White House provided New Orleans with \$1.9 billion in school aid, of which \$500 million dollars went to school vouchers and \$24 million went to charter schools (Saltman, 2007). Market-oriented thinking has helped win wide support for charter schools over the past few decades. Charter schools appear to be the next step in the larger push to privatize public schools and funnel tax dollars into the markets (Mora & Christianakis, 2013).

Although charter schools and school choice reforms are often hailed as the cure for low performing public schools, student achievement among charter schools is not significantly different when comparing matched students in traditional public schools (Booker, Gill, Zimmer, & Sass, 2009; Young et al., 2009). Furthermore, a study carried out by the RAND Corporation found that Chicago charter schools attracted and served students who performed at higher achievement levels prior to entering charter schools (Booker et al., 2009). Another study of 502 charter schools in California found charter schools have fewer students with special needs than traditional public schools, and that African American students were overrepresented in classes for the severely learning disabled and emotionally disturbed (Fierros & Blomberg, 2005). Not only has the standardized school reform movement served to dilute funding from public education to the detriment of urban schools and their students, it has also been shown to have adverse effects on schools serving Native students. According to Beaulieu (2008), “NCLB has severely abrogated the use of Native language and culture in schools serving Native students” (p. 11).

In 2005, the National Indian Education Association held a series of hearings on NCLB and its impact on Native students. A summary from the hearings and the hundreds of witnesses concluded that the over-focus on testing had resulted in an educational environment that was disconnected, boring, and irrelevant to students’ lives (Beaulieu, 2008). The focus on testing and accountability combined with insufficient funding hindered the ability of schools to focus on the broader public purpose of education (Beaulieu et al., 2005). To the disservice of those students who need it most, federal education policy, according to Noguera and Wells (2011), “has not adequately addressed the ways in which poverty and inequality influence learning and school performance” (p. 6).

Despite continued national reform efforts that tend to focus on improved teaching (Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004), out-of-school factors such as inadequacy of funding, social justice, and institutional racism adversely impact those very reform efforts (Berliner, 2009; Horsford, 2010; Miller, Brown, & Hopson, 2011; Milner, 2013). Nationally, there is an increase in the number of schools labeled as “failing,” and the achievement gap, especially in minority and low income subgroups, remains significant (Stewart, Raskin, & Zielaski, 2012). In one qualitative study, in which surveys were collected from 212 superintendents in the state of Minnesota, where they were asked to identify the most significant barriers to implementing reforms at the district level, the following results were reported:

Superintendents, when posed with nine different barriers to district level reform, had the greatest percentage of agreement (strongly agreed and somewhat agreed were combined for all reported results) with: mandates (92.9%), federal requirements (89.0%), lack of funding (87.2%). (Stewart et al., 2012, p. 5)

Although racial achievement gaps in the United States have been a focus, solutions have prioritized standardization, which offers all students the same curriculum, delivered in the same instructional framework, regardless of the fact they are predicated on the worldview, language, and lived experiences of White-English speakers (Gutierrez, Asato, Santos & Gotanda, 2002). Current school reform efforts that claim to address achievement gaps treat racism and culture as if they are non-existent (Sleeter, 2011).

This culture of traditionalism, preservation, and conservatism naturally permeates the psyche of those within that culture. Thus, classroom teachers are, to a degree, simply a reflection of what the culture perpetuates. As I have tried to establish, education as it was envisioned and created at the turn of the century was influenced and continues to be influenced by market competition. Clearly the expansion of schooling was to Americanize

immigrants and other cultural groups by establishing a dominant culture through public schools (Caruthers, 2007). As that very structure of education has lingered today, I am not certain the goal of our current educational system has shown any measurable progress. Furthermore, the increased focus on high stakes testing and guided and scripted curricula have worked against efforts to implement a culturally responsive pedagogy (Sleeter, 2012). Educational leaders are failing our students not only to be adequately prepared to face the challenges of the 21st century, but to provide equitable opportunities of health, happiness, and education.

Dynamics of Individual and Organizational Barriers to Educational Reforms

As previously established, education, as a system of bureaucratic organization, has remained very true to the origins of its design and function. The impact on schools and the business of schooling has been to perpetuate systems and practices that are not fully aligned to meet the needs of our 21st-century world. The culture of traditionalism existing in our schools today proves largely resistant to change. The purpose of schooling is to prepare our youth for a complex, rapidly changing, and interdependent world. Educators hope to do so by clinging to an organizational system that was designed for a simpler, more stable, and independent world (Williams, Brien, & LeBlanc, 2012). Systems change is a difficult task; however, the ability of an organization to adopt and adapt to social, political, and economic forces is crucial to its success. Contemporary schools are large organizations that not only have the challenge of educating the public, but are also confronted by pressures characteristic of large organizations (Swift, 1971).

As a result of these organizational pressures, educational institutions, school officials, and classroom teachers find it difficult to dramatically change the system. Many

school reform initiatives are grossly unsuccessful as schools and school leaders ignore the complex organizational obstacles present within schools (Alsbury, 2008). Organizations struggle because they have a proclivity to focus on singular snapshots of the system. For effective changes to occur, schools must have a plan to address the internal and external factors creating barriers to reform efforts (Senge, 2006). Bjork and Blasé (2009) referred to these barriers as micro and macro-politics. While micro-politics refer to the individual and informal group mechanisms employed in schools to achieve their goals, macro-politics refer to the decision-making processes at a regional and national level. These factors affect school and school reform efforts and “therefore, political processes and dimensions of power, such as influence, values, ideology, and patterns of cooperation and conflicts are relevant to understanding educational policymaking and implementation processes” (Berkovich, 2011, p. 564). Urban school communities have yet to be transformed because most efforts deal with in-school or micro-political issues like instruction and student achievement but do not address larger social dynamics such as structural racism, poverty, and inadequate resources (Berliner, 2009; Horsford, 2010; Miller et al., 2011; Milner, 2013).

Green and Gooden (2014) established, “the shift to include out-of-school challenges is part of a research tradition that recognizes the interplay between urban schools and community development, social inequality, and social justice” (p. 931). Out-of-school factors are those that have a significant impact on the health, learning opportunities, school experiences, and outcomes of children (Milner, 2013), such as political and socioeconomic issues (Green & Gooden, 2014). The factors of poverty, parental educational attainment, and inadequate housing and health care all play a role in the learning experiences of children (Carter & Welner, 2013; Ravitch, 2013; Schaffer et al., 2018). These challenges, in the

context of an urban setting, according to Alexander, Entwisle, and Olson (2014), “cast a long shadow over children’s life-trajectories” (p. 1).

Urban school reform, due to prevalent issues such as lack of funding, higher teacher turnover, higher populations of diverse students, and increased poverty rates, is the most challenging of school reform (Johnson, Bolshakova, & Waldron, 2016; Johnson, Kahle, & Fargo, 2007; Ruby, 2006). Although there has been a push in educational reform to address inequities of educational opportunities for students, inherent organizational challenges, out-of-school factors, and macro and micro-politics have rendered reform efforts ineffective at bringing substantial change to urban schools. To this point, de Silva et al. (2018) maintained:

Many of the social arrangements that are in place seem to benefit and mirror the dominant powerbase, the White majority, yet others who are of Color, specifically African Americans, seem too often to have fallen back into the abyss of racial woe. (p. 23)

Black communities, according to Bell (2004), have high proportions of low achievement and high dropout rates among students. Out-of-school factors and macro-political issues such as school funding and “the American educational system’s refusal to recognize African Americans as a distinct cultural group” (Ladson-Billings, 2009, p. 10), have ensured that large scale reform efforts have fallen short

Although reform efforts have been unable to bring systematic change in urban schools, there are large scale reform efforts that have managed, despite organizational barriers, to be successful. In one mixed methodology study that explored reform efforts to transform urban science teacher quality and learning, positive results were shown. The study involved eight urban schools, 70 teachers, and approximately 10,000 students, most of

whom were Latinx. Johnson, Bolshakova, and Waldron (2016) reported the following findings:

- The capacity of all teachers to deliver new strategies, curriculum, content and reform practices increased.
- Student performance on state science assessments, particularly in ELL students, improved.
- Students scoring in the Proficient range, between baseline year to end-of-year, produced a growth of 6% to 48%. (p. 495)

Factors contributing to the success of the reform effort included: (a) creation of professional learning communities; (b) integration of culturally relevant pedagogy; and (c) building teacher grit and enthusiasm for new strategies. (Johnson et al., 2016). These factors, such as professional learning communities and collective efficacy, have a high effect on student learning (Hattie, 2012). Additionally, integrating culturally relevant pedagogy, which has been largely ignored due to an increased focus on high-stakes testing and standardized curricula (Sleeter, 2012), ensured that “students were engaged in more discourse tied to their backgrounds, experiences, and interests” (Johnson et al., 2012, p. 494). Finally, despite adversity, with parts of the district experiencing out-of-school issues, such as lack of funding and school closings, combined with in-school barriers, such as scheduling constraints and unsupportive administrators, many teachers were still able to weather the storm and implement successful reform strategies within their own contexts. “It was up to individual teachers to choose to teach science in those situations where they did not have ideal support” (Johnson et al., p. 502). The absence of community and culturally responsive practices in reform efforts creates a difficult environment for teachers on their own to successfully implement and sustain change efforts.

Historically, school districts and administrators, in an attempt to promote change in practice, have designed staff development based on the assumption that improved performance is achieved when individuals learn to do their jobs better. The fallacy in this assumption is that, too often, organizational constraints make it difficult for individuals to consistently apply, over time, the understandings and skills they have acquired. Teachers may learn a new instructional skill but find that their use of it gradually diminishes because no one else in the school is using it or because their principals do not support the practice (Sparks & Hirsch, 1997). The structure of education and those charged with managing those organizations—primarily local school boards—have shown minimal success making and sustaining effective educational change. Senge (2006) affirmed, “organizations break down, despite individual brilliance and innovative products, because they are unable to pull their diverse functions and talents into a productive whole” (p. 69).

Given the demands and realities of global forces, such as an increasingly competitive labor market, rapid distribution of knowledge and economic opportunity, and the reallocation of resources including human ingenuity, educators must reevaluate the role, purpose, and function of education. “Whether we like it or not, we are beginning to see that we are pitted against the world in a gigantic battle of brains and skill, with the markets of the world, work for our people, and internal peace and contentment as the prizes at stake” (Cubberley, 1929, p. 34). Although written nearly ninety years ago, Cubberley’s assessment concerning the necessity to organize and govern our educational system is surprisingly applicable today.

School reformers, administrators, classroom instructors, and politicians alike must look to overhaul and radically alter teaching practices to ensure our citizenry is ready to face

the new challenges of a highly globalized society. To do this, all educators must understand how the current structure acts and influences the organizational behavior of our educational systems.

Non-linear Organizational Information, Networks, and Structures

Not only must it be understood how organizations work, especially as applied to education, but it must also be understood how information is spread and how the people within organizations make decisions. Sergiovanni (2002) suggested,

Teachers tend to make decisions not as isolated individuals but as members of collectivities. Their teaching preferences, how they are likely to respond to school improvement initiatives, and even how cooperative they are likely to be with supervisors are all shaped by such memberships. To a great extent, changing individuals means changing the group. (p. 318)

If the school's culture permeates individuals and groups, shaping thinking and practice, then it is likely that instructional practices are no different. To change individuals, as Sergiovanni suggested, one must work to change the networks to which individuals attach themselves, transfer and receive information and knowledge, and shape their mental models and educational philosophies.

Reeves (2006) posited that "most change initiatives fail not because of a feckless principal or inadequate training, but because they are built on an inaccurate model of how organizations function and on faulty assumptions about human behavior" (p. 33).

Organizations and information travel along informal hubs, bridges, and networks in a nonlinear fashion. Administrators often assume dispersing information through the trickle-down theory of hierarchy will yield positive results; however, according to Reeves, "two thirds of reform initiatives are never fully implemented" (p. 32).

These hubs, bridges, and networks consist of the individuals who make up the organization, with the informal leaders in a building often proving most influential to others. A Gallup survey supported that “a majority of employees take their cues from a trusted colleague rather than from the boss, the employee manual, or a silver tongued trainer” (Reeves, 2006, p. 33). Take a quick look back at resistance to reform efforts over the past fifty years and one can see repeated patterns and themes continuing today. For example, Swift (1971) found that educational organizations are not “monolithic, homogeneous” structures—they are made up of a multitude of diverse groups and subgroups:

In American public schools, support for progressive education varies considerably between different groups of school employees. It is more likely to be supported by younger, inexperienced teachers than by those who have taught many years. It is more likely to be favored by teachers in lower grades than by secondary teachers, more by teachers of non-academic courses than by those of academic courses, and more by administrators than by teachers. (p. 157)

Additionally, McCarty (1993) noted that burned-out educators are often very experienced, have many friends and supporters, have earned tenure, and are knowledgeable about and skilled at teaching, yet they often exert a negative influence over others in regard to change and resist making changes in their own teaching behavior. Putnam and Borko (2000) affirmed that in general, “patterns of classroom teaching and learning have historically been resistant to fundamental change” (p. 89). Since teaching remains a human endeavor, clearly this would also imply that teachers themselves have largely been resistant to change.

Clearly, people within an organization are truly important to the change process; however, the organization as a whole, and individuals within, are highly influenced by the bureaucracy itself. Their group behavior, as cultured by being a part of the organization, greatly impacts how readily and effectively change can occur throughout individuals in that organization. Reeves (2006) suggested “leaders who want to authentically change the status

quo must abandon the fantasy that their colleagues will conform to hierarchical expectations” (p. 35). To reach these hubs, nodes, and super hubs, effectively propelling sustained reform, schools need new kinds of leadership. The leadership model of management, typically viewed as something that is done to teachers, must be replaced by a more collaborative paradigm in which school leadership is done in unison with teachers. For the past century, school districts have maintained the same rigid structures of bureaucracy (Rettig, 2004). Rettig’s writing also supports Reeves’ view that organizational control is inefficient. Rettig (2004) stated:

We have come to view problems and issues in black and white terms. Furthermore, people have preconceived ideas; they don’t act rationally and therefore cannot be understood in a logical, linear fashion. Likewise, school systems, departments within those systems, and people in those departments are interconnected in irreducible fashion. (p. 262)

Mental Models and the Individual Change Process

Resistance to change is defined as a cognitive and behavioral response with the intent to uphold the status quo, halting, or influencing change with the proposed change (Berkovich, 2011). So, is change as it relates to education, solely a structural or organizational dilemma? Research suggests that change for individuals is a complex process and more than likely plays a part in teachers’ decision making process as it relates to pedagogical practices. Employees cite several reasons for resisting change that include: difference in values, disagreement on the issues being addressed, and differences between management and employees (Pardo del Val & Fuentes, 2003). Similar patterns of resistance were found among teachers (Baum, 2002; Berkovich, 2011).

Organizations consist of people, and it is the characteristics and capabilities of these people which largely determine what the organization is able to do. The idea that individuals

are responsible for resistance to change inside organizations can significantly determine the success or failure of reform efforts. For example, Sparks and Hirsch (1997) posited that “while knowledge, skills, and attitudes of individuals must continually be addressed, 94% of the barriers to improvement reside in the organization’s structure and processes, not in the performance of individuals” (p. 132). (Although this study only explored what considerations teachers make with regard to pedagogical practice during the pre-active stage of planning, a future study could investigate the degree to which preserving traditional practice can be attributed to organization or individual teacher influences.)

Additionally, it is imperative that educators explore what role the individual plays in the change process. According to Thompson (2003), most educational reform has been at the surface level and failed to challenge firmly held beliefs or procedures about what good schools should do and how they should do it. Change is often only superficial and falls short in addressing the individual’s core beliefs about education. Strong core beliefs and long held mental models frequently lead teachers to resist instructional change. Mental models often resist new information and can be a major obstacle to creating and supporting systemic school improvement. As a result, many classroom teachers do not regularly assess their instructional strategies for effectiveness, leaving instruction to become futile and stagnant. Practitioners must continue to be reflective and introspective, working to frequently reassess their held beliefs and practices. Failure to periodically examine one’s beliefs against new information leads to habitual behaviors of mindlessness (Yero, 2001).

From my experience, this “mindlessness” is pervasive in our educational system. Often, teachers will continue to implement instructional strategies that are ineffective or simply fail to address the needs of different learning styles. Jorgenson (2006) found:

Today's schools are not designed to prepare children for our explosive knowledge economy or its demand for outcomes over process; the traditional model of teachers dispensing discrete, disconnected bodies of information presented in isolation from other subject areas is increasingly obsolete as a way to prepare children in our world. (p. 2)

Introspection is difficult, especially when it means confronting strongly established beliefs and practices. Teachers and instructional practitioners are less likely to initiate change unless that core of information is repeated and sustained and supported. Teachers, continually over time, must be presented with new information to the point they begin to feel disequilibrium between new information and held beliefs (Hunzicker, 2004).

Even when compelling new information is presented, teachers' beliefs about instruction are so strong that they will continue to validate information and techniques supporting those previously established beliefs. The failure of educators to view the world of education through a different lens works to support the status quo.

If a teacher believes a program they have been told to use is based on a solid foundation, and if the program is based on beliefs similar to their own, they will notice ways in which the program works. If they believe it is a waste of time, they notice evidence supporting that belief. (Lilly, as cited in Yero, 2002, p. 121)

Teachers will not even entertain the idea of change if they feel their current model is effective and produces results. To this point, Jane Kise (2006) explained, "reflective practices may only reinforce those mental models unless teachers receive outside perspectives and information" (p. 47).

The end result is that our educational systems continue in much the same fashion, with much the same purpose, using many of the same practices as they have for close to a century. Systematically educating students using antiquated instructional methods fails to adequately prepare students for the new realities and demands of a more globalized labor market. The practices, beliefs, and structure of schooling has changed very little, while the

world has changed drastically. Although globalization has been a common occurrence for hundreds of years, the technological boom of the late 1990s spurred the most rapid advancement of this process, most assuredly changing the meaning, role, and purpose of education in the context of a more “globalized” world. As previously stated, educators and the entire institution of education have been slow to adapt. The result of not taking every opportunity to advance education at a frantic pace will further erode the most precious of national resources. According to Hardy (2008), the National Governor’s Association issued a report entitled *The Silent Epidemic*, in which it declared, “the dropout rate threatens the nation’s economic security” (p. 20).

Every year our country loses thousands of young people—students who leave school without graduating or without the skills and knowledge to succeed in life. This failure to prepare the next generation for tomorrow’s challenges threatens our nation’s economic and civic health. Our schools, particularly our high schools, must prepare all students for the demands of college, work, and citizenship. Today’s large, impersonal high schools were designed for a different era and different economy, and they are leaving far too many young people behind. (Bill and Melinda Gates Foundation, 2011, p. 1)

As difficult a task as creating change in one’s long-held beliefs and assumptions may be, creating organizational change is even more daunting. Organizational change—the shifting of schedules, the creation of teams and daily rituals, and the setting of timelines—are what Cuban (1988) referred to as first order change. He stated, “First order change is when teams are organized, but are restricted by the same bureaucratic restraints that afflicted departmentalized schools” (p. 5). Stewart, Raskin, and Zielaski’s (2012) study entitled *Barriers to District Level Educational Reform*, in which qualitative and quantitative data was collected from 212 acting superintendents, speaks to the difficulty of change in an organization. The study concluded that 80.1% of superintendents surveyed agreed their district had ingrained patterns of behavior resistant to school reform, and 78.2% of

superintendents agreed their district had passive resistance to change. Clearly, established bureaucratic structures and patterns of organizational behavior significantly influence the degree to which reform efforts are successfully implemented.

Critical Pedagogy for 21st-century Alignment

In order to successfully prepare students to meet present and future challenges, educators must equip students to be global citizens capable of using and understanding information technologies; working collaboratively with diverse groups to solve problems; thinking analytically and creatively; and communicating effectively through various mediums. Traditionally, the types of content, knowledge, skills, and instructional practices that have been employed systematically in our educational institutions over the past decade have been just that, traditional. As a whole, these same traditional practices linger in too many classrooms for too many students. Jackson (2009) stated, “our observations suggest that relatively little has changed at the core of most students’ school experience: curriculum, assessment, and instruction. . . .On balance, no sea change in the status of middle grades education has occurred” (p. 6). Prensky (2008) further supported this when he affirmed, “school instruction is still mostly cookie cutter and one size fits all, despite the fact that we live in an era of customization” (p. 43).

The skills students need to be successful are no longer easily transferred from teacher to student by pontification. As Jorgenson (2006) suggested, “the stand-and-deliver model of teaching and learning, with the teacher at the center of instruction, is increasingly incompatible with today’s youth” (p. 2). According to Pink (2005), “the world has moved beyond both the Industrial Age and Information Age and is now into the Conceptual Age which will require creators and empathizers as well as pattern recognizers and meaning

makers” (p. 48). With this move educators can assume a need for a new focus, new curriculums, new pedagogies, and new educational realities. As global forces continue to shape society in unparalleled ways, the focus and purpose of education must be aligned to the new realities of the 21st century. These new realities, as Wise (2008) pointed out, include “a constantly changing labor market that has created new challenges; students must acquire adaptable, transferable skills as well as specific content knowledge to be adequate employees” (p. 10).

Students today are coming to school with more experiences, connections, and access to the world and all of its information than their counterparts just a decade ago. However, for many students, schools do not offer the types of global learning opportunities, access to technology, or open access to information systems they frequently find at home. In an article entitled, “Turning on the Lights,” Prensky (2008) wrote,

When kids come to school, they leave behind the intellectual light of their everyday lives and walk into the darkness of the old fashioned classroom. It is their after-school education, not their school education, that’s preparing our kids for their 21st century lives—and they know it. (p. 44)

Our educational institutions are quickly becoming antiquated systems in which our students are being prepared for a world that no longer exists. As stated earlier, educating students utilizing traditional pedagogy is failing to adequately prepare students. “It would seem obvious that as the world changes, education must change. We can no longer afford to rely on 19th century or 20th century education systems any more than we can afford to rely on 19th century transportation, communication, or medical systems” (Springer, 2009, p. 23).

As a high school social studies teacher, I often questioned the delivery of content in not just my own teaching, but that of my colleagues as well. Although challenging common practices and group held norms about instruction yielded some quality dialogue, minimal

change with regard to instructional delivery was ever achieved. Once the common scope, sequence, and assessments were created, it became increasingly difficult to deviate from a practice of content delivery that was, for the most part, rote, teacher centered, and traditional. As a teacher, I often saw and felt the power of school cultures that dictated decisions about instructional delivery. Common assessments and pacing guides were created; data from those assessments were reviewed to identify who was most efficiently teaching the curriculum. In this way, de facto organizational pressure helped perpetuate a traditional method of instructional delivery in my building that became the norm and, essentially, a commonly held belief about what was best practice. David (2008) found that pacing guides actually deter teachers from utilizing more effective instructional strategies. Pacing guides push “[teachers to] rely on teacher-centered lessons that seem more efficient and predictable than student-centered lessons. Engaging students in more time consuming and cognitively demanding activities that nurture understanding tends to fall by the wayside” (p. 87).

Systematically educating students using outdated teaching strategies and pushing curriculum that is no longer relevant is detrimentally impacting student learning and achievement. Educators need to align what they teach and how they teach it to the realities of what the 21st-century world will demand of our students. Educators also should continue to focus on content and ensure students have a solid building block of requisite facts and information from which to build and connect new experiences and knowledge. However, for too long, education has focused on the didactic, or the pushing of facts, thus neglecting maieutic practice, or the pulling and analysis of opinions, which is a necessary component to successfully realize critical 21st-century education.

Twenty-first-century readiness cannot be singularly defined by market conditions that perpetuate education as a purely economic endeavor of investment in a future labor market and ultimately, corporate profits (Kohn, 2003). For many years, Nel Noddings has advocated that the purpose of education should be to ensure students are loving and lovable people. And indeed, to those who would argue the purpose of education is to preserve and promulgate democratic societies, this is certainly a requisite tenet. Marcelo Suarez-Orozco (2007) offered a broadened definition of what it means to be educated in the global era:

An education for the global era must engender lifelong habits of body, mind, and heart. It must tend to the social and emotional sensibilities needed for cross-cultural work; empathy and learning with and from others who happen to differ in race; religion; national, linguistic, or social origin; values; and world view. They are all our brothers and sisters in the ever more diverse, interconnected, and global human family. (p. 212)

The goal of education should reflect all of these realities. Educational processes should systematically ensure students leave our institutions with an understanding of how they learn best, what motivates them, where their interests lie, and what pathways they can pursue to find health, happiness, and financial independence. Educators cannot do this with rigid curriculums that prove to be inflexible and unchanging compared to the world around them, or with those curriculums guided by market-driven management pedagogies serving only corporate interests of workforce readiness. Rather, schools should be equipped with “Dream Directors” whose job it is to help students realize what their dreams are and what skills and pathways students will need in pursuit of those dreams (Schwartz, 2016a). In his book, *Dream Differently* (2017), Vince Bertram encouraged students who are leaving the comfort of their high schools to not simply follow their dreams, but to “take [their] dreams out of the clouds and hold them up to the harsh light of the day” (p. 15). Students in the 21st

century will need to be self-aware, critical, flexible, and adaptive in ways for which the current educational system has ill prepared them. Educators and civic leaders know what needs to be done to make significant corrections to educational institutions, its structures, and its pedagogies; nonetheless, the key question to ask is, does the culture to support it exist?

It was a combination of personal classroom practice, observation, and a review of current literature that ultimately forged the idea for this study. As I wished to explore and deconstruct the decisions teachers make with regard to lesson planning, two studies that addressed the decision making process in both students (Penso & Shoham, 2003) and high school science teachers (Duschl & Wright, 2006) served as a catalyst for this study. A summary of the considerations teachers cite with regard to pedagogical decision making were dominated by (a) student development, (b) curriculum guide objectives, and (c) pressures of accountability. Anecdotally, my experiences supported that curriculum guide objectives and pressures of accountability dominated the factors teachers cite for pedagogical reasoning. However, I want to further this research by specifically looking for considerations made by teachers to integrate 21st century skills and knowledge into daily lessons. As stated in Chapter 1, it is the combination of these two practices that can adequately serve as a vehicle to teach both the hard facts and soft skills.

Hard Facts Versus Soft Skills in a 21st-century Context

Current literature suggests that soft skills are a 21st-century educational imperative; however, it has been the teaching of hard facts that has largely characterized education up to this point. Terego (2009) posited that there are two kinds of pedagogy that must be addressed for students to be successful in the 21st century: didactic and maieutic, which is

the pushing of facts and the pulling of opinions (p. 43). When I discuss this with teachers, the idea of teaching soft skills or the pulling of facts—the maieutic piece—teachers begin to rigorously defend the necessary instructional time required to teach the content for which they are responsible. They resist the idea of adding anything else to their instructional plates. This chasm between the teaching of soft skills versus hard facts is only perpetuated by high stakes performance testing that promotes traditional practices. Tyson (2009) reported that teachers spend most of their instructional time with students engaged in practices and activities they do not value such as “covering fact-based curriculum, drill and practice, rote memorization activities, and reviewing for high stakes tests, the results of which can have a devastating impact on their adolescent learners” (p. 38).

Again, anecdotally, teachers struggle to comprehend how to more deliberately incorporate the teaching of content neutral 21st-century skills given the overextended content they are already obligated to teach. As a result, Terego (2009) wrote, “maieutic teaching has largely disappeared from the classroom. Maieutic learning is unfamiliar territory to most students and teachers because the desired soft skills deal with ambiguity, not certitude” (p. 44). With the absence of maieutic teaching from classrooms, it will be difficult, if not impossible, to prepare students to face the challenges of the post-secondary world they will encounter.

The question of teaching content versus skills cannot remain; rather, educators must look at how teachers can deliver to our students the necessary components of education for them to be successful. Although the classroom teachers that I speak with almost unanimously cite a division between the teaching of content versus skills, current literature clearly supports an integration of both seamlessly into classroom practice. Umphrey (2009)

posited that “teachers and people who learn effectively obviously understand content in ways that allows them to draw out the big ideas and use those understandings to solve problems” (p. 19). While Rotherham and Willingham (2009) supported the notion that skills and content are not exclusive, they maintained that domain knowledge is an absolute necessity to effectively utilize more complex thinking skills. The task of instructional leaders is to help teachers feasibly initiate more intentional teaching of soft skills, or adding the maieutic component, within the context of all that is already on their curricular and instructional agendas. “We must plan to teach skills in the context of a particular content knowledge and to treat both as equally important” (Rotherham & Willingham, 2009, p. 19). Teachers must understand that the world is shrinking, our classrooms are growing increasingly more diverse, and the reality is that our students will be required to interact with a multitude of people with backgrounds and cultures that are not like their own. Any analysis of 21st-century pedagogy must include a discussion of culturally responsive pedagogy as well.

Culturally Relevant Pedagogy for 21st-century Learners

Culturally responsive pedagogy is a multiple perspective, student-centered approach that promotes equitability and recognizes the contributions and experiences of students from all cultures and backgrounds (Samuels et al., 2017). According to Ladson-Billings (2009), culturally relevant pedagogy assumes three tenets: academic success for all students; students must develop cultural competencies; and students must develop a critical consciousness that challenges hegemonic social structures and order. Culturally relevant pedagogy is connected to the larger field of multicultural education.

It is important to note here the influence of multicultural education, the intent behind this movement, as well as highlight contrasts between it and culturally relevant pedagogy. Chapman (2008) wrote, “In the spirit of creating a more equitable educational experience for all students, multicultural education was birthed from *Brown* and has remained pertinent to conversations about curricular and content reform, whole school restructuring, and district modifications” (p. 43). Multicultural education advocates for educational equality and diversity inclusiveness but stops short of being critical of practices that create social inequities. According to Kim (2011), “multicultural education often takes the form of adding the history and cultures of ethnic minorities to the dominant curriculum without addressing racism and critiquing school structures” (p. 206).

Culturally relevant pedagogy is connected to the larger field of multicultural education, highlighting not only inclusiveness and diversity in curriculum, but also validating students’ lived experiences and promoting advocacy in current social and political contexts (Gay, 2010; Ladson-Billings, 2006; Villegas & Lucas, 2007). This critical lens is important, given the increasing diversity of our classroom settings. Students from diverse cultural, linguistic, and racial/ethnic backgrounds comprise 30% of the K-12 school-age population in the United States (Gay, 2010; National Center for Education Statistics, 2016). Caruthers and Poos (2015) wrote “the majority of African American and Latina/o students attend predominately non-White schools and are taught by White teachers who may not be familiar or comfortable with constructs of diversity” (p. 627). Given that most of the teachers in classrooms do not share the same cultural, linguistic, and racial and ethnic backgrounds as their students, it is no surprise that most do not feel equipped to meet the needs of diverse learners (Darling-Hammond, 2010; Gay, 2010).

There is validity to the lack of preparedness on the part of teachers to meet the challenges of their diverse learners. Samuels (2018) conducted a qualitative study utilizing small focus group interviews to examine teachers' perspectives related to culturally responsive pedagogy. The study included over 200 in-service teachers serving in low socioeconomic K-12 schools. Sixty percent of the participants were elementary teachers, with 40% representing middle and high school levels from various content areas. Data from the group interviews were collected and analyzed and "revealed commonalities regarding teachers' perspectives on culturally responsive pedagogy, including perceived advantages and challenges. While participants considered facilitation of culturally responsive teaching beneficial in a multitude of areas, restraints of time and resources were heavily emphasized" (p. 24). These are important factors for building leaders to understand as they work to increase capacity among teachers in the area of culturally responsive teaching. Additionally, if in-service teachers are struggling to meet the needs of diverse learners, a look into the preparation of pre-service teachers is also warranted.

Samuels, Samuels, and Cook (2018) conducted a qualitative study to explore students' perceptions related to culturally responsive pedagogy. This qualitative study included 27 participants from three courses at small liberal arts schools in the South who were pursuing advanced degrees in education. The multi-tiered design included analysis of pre- and post-surveys, virtual discussion submissions, and active learning projects. Prior to engaging in the learning activity, students self-reported their perceived levels of understanding with regard to culturally responsive pedagogy. "Fifteen percent of the students reported they were not familiar; 63 percent reported limited knowledge; 22 percent reported familiarity, and zero percent reported being very familiar" (p. 54). After engaging

in the learning unit, the study found that teachers' responses "were more detailed and complex such as a way to educate students about the social structure, systematic racism, and acceptance and understanding of other cultures" (p. 54). Further findings suggested that teachers "reported a perceived value in culturally responsive pedagogy because they believe it fosters positive relationships and trust, empowers students, offers voice to all populations, and promotes understanding of multiple truths, understandings, and ways of knowing" (Samuels et al., 2018, p. 54). Teachers must have the opportunity and space to reflect critically of their own practices and how they influence or perpetuate biased paradigms.

Essential to classroom teachers in the 21st century is the need for them to not only understand diverse learners and their experiences, but also to reach a level of "critical consciousness." This type of awareness is predicated on identifying personal beliefs reflective of the social context and values of teaching, which include political and economic contexts as well (Freire, 2005). When teachers are provided with opportunities to reflect and interrogate their assumptions and biases, they are better situated to create equitable and inclusive classrooms as well as become agents of change (Samuels, 2018). This aspect of culturally responsive pedagogy is critical, as it is the responsibility of every educator taking up the cause of teaching to recognize the systematic structures creating bias and how we "influence (in)action, counter or perpetuate biases or deficit paradigms, and expose or ignore injustices" (p. 22). Kumashiro (2000) wrote, "The aspect of oppression that we need to work against is the repetition of sameness, the ongoing citation of the same harmful histories that have traditionally been cited" (p. 46).

Teachers, out of necessity, not only need to have a working schema of the knowledge and skills 21st-century students will need to be successful, they additionally need

to think about how their interventions are going to impact student learning. They need an understanding of culturally responsive teaching and how best to implement these tenets into daily practice. As this study is concerned with teachers' decisions in the pre-active context of teaching, it is critical to explore the body of research that begins to touch on teacher decisions both directly and indirectly.

Teacher Decision Making

If one needs a small glimpse into the vast number of decisions a classroom teacher is required to make in the course of a day, sit with one as they prepare instructions and lesson plans for a pending absence. There is a reason teachers would rather limp along feeling unwell than try to articulate in writing all that needs to happen in the course of their day. In essence, it is an attempt to relieve the substitute of as many decision making situations as possible. Shavelson (1973) posited, "Any teaching act is the result of a decision, either conscious or unconscious," and "the basic teaching skill is decision making" (p. 144). Teachers must hold several pieces of information about content, students, classroom management, and external expectations to orchestrate all the educational noise into a seamless learning experience. Shavelson and Stern (1981) wrote:

Teachers are seen as active agents with many instructional techniques at their disposal to help students reach some goal. In order to choose from this repertoire, they must integrate a large amount of information about students. And this information must somehow be combined with their own beliefs and goals, the nature of the instructional task, the constraints of the situation, and so on. (p. 472)

The art and science of teaching is incredibly complex, making teachers' decisions critically important to the outcomes on student learning. However, according to Vanlommel et al. (2017), little is known about how teachers make those decisions. Therefore, it is crucial to seek to understand teachers' reasoning and decision making patterns.

Research related to teacher reasoning and decision making reached its height of study in the 1980s (Borko, Shavelson, & Stern, 1981; Calderhead, 1981; Inglis & Lucas, 1976; Parker & Gehrke, 1986; Peterson & Clark, 1978; Shavelson & Stern, 1981). More recently, studies focusing on the teachers' instructional decisions that enhance activities in the classroom (Maloch et al., 2003; McMillan, 2003; Nevo, 1995; Penso & Shoham, 2003; Parmigiani, 2012) as well as studies that explore how teachers utilize data to justify and support educational decisions (Brown & Weber, 2016; Salvin, 2012; Schildkamp & Ehren, 2013) have been a growing area of focus. In the review of literature, there were consistent themes that were addressed pertaining to teacher reasoning including: (a) decision making theory, (b) decisions in context—pre-active, interactive, and post-active decisions, and (c) influencing factors and inputs or considerations.

Decision Making Theory: Rational versus Intuitive Decisions

Daniel Kahneman (2002) described human decision making using two interacting systems. System one (intuition) is fast, automatic, and effortless, while system two (deliberate thinking) is slow, controlled, and effortful (Moxley, Anders, Charness, & Ralf, 2012). According to Epstein (2010), the intuitive system operates by the hedonic principle (what feels good), while the rational system follows the reality principle (what is supported by evidence). There is an abundance of research in education on data-based decision making that were addressed in the review on rational decision making. However, as Vanlommel, Van Gasse, Vanhoofer, and Van Petegan (2017) wrote, “The dual process approach has become widely accepted, describing a model of human decision-making guided by both rationality and intuition” (p. 76). Vanlommel et al. (2017) found in their study on teacher decision making that:

Despite the efforts that are made to enhance and support data use in schools, teachers' data use is still limited. Although research points out that decisions based on data better correspond with pupils' needs, teachers are still convinced of the contrary. Teachers believe that their intuition, based on experience and personal connection with pupils, leads to better knowledge of pupils' competence and special needs. (p. 81)

These findings support a study on design practice by Davis et al. (2011) that suggested what a teacher knows about teaching and learning influences the educational goals the teacher will establish for learning and selecting activities that they think will be successful. Parmigiani's (2012) study exploring instructional decisions and the biases teachers use during instructional activities found that when teachers want to carry out an activity, they make considerations for methods, times, and contents. "They are likely to look for similar activities. They tend to make the same decision if the past activity presents similar characteristics" (p. 182). This is very much an intuitive based decision. Assuming a past activity in a given class with a specific group of students continues to be best practice without verification runs the risk of developing an instructional stereotype.

In one the most comprehensive analyses on teachers' decision making I reviewed for this study, Shavelson and Stern (1981) cited two studies (Morine-Dersheimer, 1978; Mintz, 1979) that concluded that teachers' concerns about students in their planning were greatest earlier in the year, before teachers reached a judgment about their students. In Vanlommel et al.'s (2017), study about the connection between data and intuition in teachers' decision making process, they concluded that intuition "strongly determined what data is paid attention to, is used to make sense of data and, determines which information deriving from data is taken into account" (p. 80). Given the push in education for teachers to be "data-

driven” in their educational decisions, it is clear that teacher intuition continues to play a significant role in that process.

The push to improve test scores has led to increased interest in the use of data on the part of schools and districts to drive decisions and effect change (Salvin et al., 2013). As the focus and conversation has shifted to standards-based accountability systems, so too has the expectation that educators employ data to justify and guide educational decisions (Vanlommel et al., 2017). Rational, or data based decision making, according to Dane and Pratt (2007), is the process of collecting and analyzing data to inform and direct pedagogical decisions. The use of Data Review Teams to review student results to determine the impact of teaching interventions on student learning has become commonplace in education. This rational basis for decision making is very much a cyclical process with distinct phases of interpreting and diagnosing data to take action (Vanhoof, Verhaeghe, Van Petegem, & Valcke, 2010).

The counter argument to rational or data-driven decision making is not abundant; however, it does add value to the discussion. Neuman (2016) made the argument that a focus of data-driven decisions versus data informed decisions often misplaces the types of instruction students receive as a result. “Students who live in low-income neighborhoods may need more instructional time to acquire—but this does not mean more time spent doing mindless worksheets focused on basic skills” (p. 25). Increased amounts of time spent on worksheets and basic skills can lead to a widening of achievement gaps by depriving students of effective tier one instruction students need (Schmidt & McNight, 2012). One study on the effects of a data-driven reform model on state assessment outcomes found that there is little evidence to support the effectiveness of data-driven state reform (Salvin,

Cheung, Holmes, Madden, & Chamberlain, 2013). And despite more than a decade of data-driven instruction, scores in reading achievement for students in the United States have remained flat and even declined for struggling readers (National Center for Educational Statistics, 2015). The same disconnect exists in math, where the frequent use of computer-assisted instruction programs have demonstrated little evidence of student growth (Salvin et al., 2013). Because of the increasing ability of educators to collect big data on student learning, and the continued pressures to increase test scores, rational decision making will continue to persist in any discussion of educational reform and teacher decision making.

Pre-Active, Interactive, Post Active Decisions

Clearly, depending where in the sequence of teaching decisions are being made, the nature of those decisions will be specific and targeted accordingly; thus, the timing of decisions is an important discussion in the context of this study. Penso and Shoham's (2003) study on student teachers' reasoning while making pedagogical decisions identified stages of teaching as the "pre-active" and "post-active" stage of teaching. Gun (2014) studied experienced teachers' interactive decisions. His work focused on what he refers to as "in action" decisions and reflection. Pre-active versus interactive decisions, according to Tsui (2003), is "the former refers to the period before teaching when teachers are planning the lesson and evaluating and selecting teaching methods and materials; the latter refers to the time when teachers are interacting with students in the classroom" (p. 22). This pre-active, interactive, and post-active distinction was important in this discussion on teacher decision making as it related to this study.

According to Parmigiani (2012), data indicated that during the pre-active, or planning stage of teaching, teachers' decisions are focused on students' characteristics and

methodology. It is during this planning and cognitive, or group dialogue, that teacher talk was often connected to teachers' beliefs about teaching and learning as well as perceptions about other factors such as students and content (Gill & Hoffman, 2009). Duschl and Wright's (2009) case study, comprised of high school teachers' decision making models for planning and teaching science, focused on the selection, implementation, and development of instructional tasks occurring in the pre-active stage of instructional delivery. It concluded that teachers' decisions are dominated by considerations for student development, curriculum guide objectives, and pressures of accountability.

Interactive decisions are decisions made while teachers are engaged in classroom instruction, during which phase teachers must analyze and be attuned to rapidly changing classroom dynamics to make adjustments to instruction. Research on interactive teaching, according to Shavelston and Stern (1981) proved that teachers' primary concern was maintaining activity flow. Kohler, Henning, and Usma-Wilches (2008) found that interactive decisions:

focus on whether students are learning or the types of adjustments that are needed, and judgements made after teaching could determine the types of feedback or grades that students should receive or the need for follow-up activities. All of these decisions are influenced by ongoing classroom context, as well as a teacher's experiences, values, and knowledge of content, pedagogy, and individual students. (p. 208)

Teachers spend a disproportionate amount of time engaged in "in-action" or interactive decision making because the majority of what they do is considered "in-action." In fact, according the OECD 2018 report, there are only eight countries that exceed 800 hours of teaching time, and the United States is one of them, ranking fifth out of 39 countries with approximately 1,000 hours (OECD, 2018). It is critical to not only understand

what is going on cognitively with teachers during this time but to coach teachers to be effective at analyzing and adjusting to student needs during instruction.

For the purpose of this study, I focused on teachers' decisions in the pre-active stage of teaching and continue to refer to this phase in the teaching process as the "pre-active stage" of teaching. Jackson (2009) defined the pre-active stage of teaching as "the period before teaching, when teachers are planning the lesson and evaluating and selecting teaching methods and materials" (p. 22). It was in this pre-active phase of teaching that I was able to more intimately uncover teachers' considerations and intentions with regard to their teaching interventions.

Influences, Considerations, and Inputs

This study sought to gain insight into the considerations teachers make as they are planning and preparing for instruction. Which factors should teachers be evaluating that will lead to the greatest gains in student learning? Hattie (2012) suggested four critical parts in the planning process that teachers need to consider prior to creation and delivery of lessons.

These areas include:

The levels of performance of the students at the start (prior achievement), the desired levels at the end of a series of lessons (or term, or year) (targeted learning), and the rate of progress from the start to the end of the series of lessons (progression), and teacher collaboration and critique in planning. (p. 37)

Hattie's considerations speak to content neutral considerations that yield positive outcomes with regard to student learning. Several studies—Harris (2012), Penso and Shoham (2003) and Parmigiani (2012)—cited pressures of accountability existing outside the control of the teacher and considered to be external. External factors, according to Griffith (2014), that influence teachers' decision making include: (a) the standards-based movement; (b) adopted and/or mandated curricula; and (c) student-centered beliefs. Gun's (2014) study found

several interactive teaching themes influencing teachers' decisions during the active stage of teaching, including the following: (a) pedagogical themes; (b) emerging needs; (c) knowledge of students; (d) knowledge of lesson materials; and (e) exploiting all opportunities to teach.

The stage of the process teachers are in determines the factors they consider when making instructional decisions. Data looking specifically at the pre-active, or planning, stage of teaching found "teachers' decisions are mainly focused on students' characteristics and methods that they intend to use in the classroom. However, classroom management and content are also important parameters" (Parmigiani, 2012).

Lesson planning, curriculum design, and instruction, according to Boschman, McKenney, and Voogt (2014), "are influenced more by considerations concerning concrete classroom activity than by abstract subject matter, knowledge or learning goals" (p. 397).

Teacher reasoning, they continued,

reflects their practical concerns as contingencies and limitations in classroom practice. Found in literature, the most salient are: (a) organizational issues; (b) relationship between student and activity; or (c) how subject-matter is presented to students in such a way that becomes feasible in practice. (p. 397)

Griffith and Groulx (2014) found that for teachers in their study, the belief statement, "When planning lessons, teachers should first think about the standards for the subject area and grade level," was statistically significant when paired with the practice statement, "When teaching, I begin my planning with the standards for my grade level and subject area" (p. 108). As the proliferation of the standards-based movement has made its way into every educational discussion for the past few decades, this study, and it affected the essence of what I was seeking to uncover. "In the age of increased accountability," Griffith (2014)

wrote, “scripted instructional programs, mandated curricula often profoundly influence teachers’ instructional decisions” (p. 306).

The standardization movement has helped to ensure fidelity to curriculum and provide symmetry to curriculums. Ensuring the same learning intentions are consistent across like-content areas is a positive outcome of this movement. The standardization movement has given teachers a narrower focus by very specifically, systematically, and methodically prescribing to them what specific learning intentions are to be taught. Clearly, the standards-based movement heavily influences teachers’ decision making (Ogawa, Sandholtz, Martinez-Flores, & Scribner, 2003; Swanson & Stevenson, 2002). Teachers in public, high stakes classrooms are making decisions based on policymakers’ demands for standardization (Parker & Neuharth-Pritchett, 2006; Parks & Bridges-Rhoades, 2012). Accountability and standards movements over the past several decades have, according to Brown and Weber (2016), “impacted the landscape of teaching by limiting the instructional decision-making of teachers” (p. 67). Teachers, as Griffith, Massey, and Atkinson (2013) wrote, depending on the number of years of teaching experience, cite both positive and negative aspects of standards with “novice teachers typically embracing the standards and the associated pacing guides, whereas experienced teachers identify the movement as frustrating due to the loss of their professional freedom” (p. 307). Nonetheless, it is clear that the standards-based movement weighs on teachers as they are making pedagogical decisions.

Organizational Thinking/Collective Beliefs

As teachers and the science and art of teaching exist within a construct with commonly held beliefs about teaching, learning, students, and curriculum, those beliefs

strongly influence decisions teachers make with regard to instruction. Teachers' decisions are connected to the group or community of which that teacher is a part (Parmigiani, 2012). These collectively held assumptions and beliefs are powerful agents and may cause teachers to make decisions that are antithetical to student learning and achievement.

These beliefs on the part of well-intentioned teachers reflect a lack of cultural and social understanding. Harris (2012) cited entrenched negative beliefs about students in low performing urban schools often result in ineffective classroom practice. Caruthers and Friend (2016) concluded, "a fleeing White population has created spaces of "otherness" solely for poor children, taught by predominately White teachers" (p. 25). "Due to the lack of knowledge about urban students, many teachers position learners at risk of academic failure, misidentification of special needs, unnecessarily harsh disciplinary action and the diminution of the self" (Swartz & Bakari, 2005, p. 829). Often, well-intentioned teachers in urban schools give in to the pedagogy of poverty with its attributes of authoritative and compliance seeking practices. However, below this façade of control, students often direct teacher behaviors by reinforcing deficit beliefs held on the part of the teacher. Haberman (2010) wrote:

Students reward teachers by complying. They punish by resisting. In this way, students mislead teachers into believing that some things work while other things do not. They believe they are in control and are responding to "student needs," when, in fact, they are more like hostages responding to the students' overt or tacit threats of noncompliance and, ultimately, disruption. (p. 84)

What a teacher believes about their students' ability and capacity to achieve is the greatest determinant of success for those students. Teachers often lament about factors beyond their control that include class size, parental support, and socio-economic status. All of these have an effect size on student learning that is far less than the power of collective

teacher belief. “Teachers’ beliefs and commitment are the greatest influence on student achievement over which we have control” (Hattie, 2012, p. 22). Collective efficacy, according to Hattie (2012), was found to have an effect size of 1.57 on student learning. Clearly, then, it is critical for teachers to understand that they are the significant change agents students need, and their beliefs about student learning, more than socio-economic factors, home life, and class size, impact success. Teachers collectively develop common thinking influenced by their past experiences. Huber (2003) found that decision making develops through modalities that arise from individuals and groups. Therefore, it is critical for teachers to not only reflect on their individual decisions, but also reflect on how organizational beliefs impact those decisions.

When teachers continue to teach in similar modalities without analyzing data and reflecting how their teaching interventions are impacting student learning, instructional bias may occur. According to Gun (2014), when teachers are asked to reflect on teaching, they tend to reflect on their actions, rather than on the reasons behind them, and often times cannot provide a justification for their actions. “When teachers want to carry out an activity they are likely to look for similar activities developed in the past with analogous features . . . in this way, the decision maker could tend to create instructional stereotypes, which become teaching methods used daily without reflection” (Parmigiani, 2012, p. 182). As evidenced, instructional bias can most certainly influence teachers’ decisions about what to teach and how to teach it.

One of the last frontiers teachers still have available to them is *how* they teach. Although, anecdotally, many teachers will report they feel they have less autonomy and lack a creative license, the reality is their ideas and thought processes about how they are going

to teach are still very much sovereign to them. Teachers, not programs, make the difference in student learning (Hattie, 2003), and therefore it is critical, as educators, that we understand how teachers make decisions, what factors influence their instructional decisions, and their intentions and considerations about their pedagogical decisions.

Summary

As discussed in this review, our educational system was created in function and structure to not only mirror the corporate capitalism model of efficiency, but also to feed it. The business of schooling served to assimilate large immigrant populations overwhelming America's shores at the turn of the century, and preserve a social stratification system, all but ensuring these very populations remained at the bottom of it. Consequently, it also formed the now antiquated paradigm of readying its students for a life of mindless piecemeal work requiring little, if any, soft skills or free thought. Much to the detriment of our students, this system, its structures, and many of its practices with regard to pedagogy remain today. The world around education has changed at a rapid pace and education has failed to respond accordingly.

The globalized world requires a new knowledge and skill set that includes critical thinking, problem solving, communication, collaboration, creativity, financial and health literacy, and global awareness. Our schools are failing to equip students with these 21st-century skills and concepts. Schools, as organizations, and those individuals whom they employ, have been slow to effect change. When I talk to teachers about best practice and instruction, teachers understand the need to engage students in pedagogy that prepares them for the globalized world they will find when they leave our educational institutions. Given this insight, educational leaders must recognize how effective teachers utilize both didactic

and maieutic instruction to successfully ensure the battery of both skills and content our students need in order to move forward.

CHAPTER 3

METHODOLOGY

Students who graduate from educational systems in this country today are less prepared to face the challenges of our accelerated world, for the system has been designed to yield an antiquated product. Our educational systems must prepare students for a future where opportunities for success require the ability to compete, connect, and cooperate on a global scale (Stewart, 2008). Students must enter the hyper-globalized post-secondary world with prerequisites for success that include critical thinking, problem solving, communication, collaboration, creativity, ingenuity, financial and health literacy, and global awareness. The National Center on Education and the Economy's (2007) report, *Tough Choices Tough Times*, stated:

[students] will have to be comfortable with ideas and abstractions, good at both analysis and synthesis, creative, innovative, self-disciplined and well organized, able to learn quickly and work well as a member of a team and have the flexibility to adapt quickly to frequent changes in the labor market as the shifts become ever faster and more dramatic. (p. 8)

Given the educational realities of the 21st century described in the 2008 report, educators have an obligation to ensure student success by altering and aligning classroom practices to 21st-century demands. National assessment data reveal a decline in the performance of our middle school students. "The National Assessment of Educational Progress (NAEP) shows that 30 percent of our nation's eighth grade students in mathematics and 27% in reading are categorized below basic" (Jackson, 2009, p. 6). International assessment data such as the Program for International Student Assessment (PISA) reveals that in science, "the United States ranked 21st among 30 countries" (Schleicher, 2008,

p. 11). The core problem is that our educational machine was engineered for another era to produce a much different vehicle (Springer, 2009).

When I talk with teachers about instruction, pedagogy, content, 21st-century demands, higher order thinking, and content neutral skills, I am hard pressed to find teachers who do not understand the critical need for their students to be equipped with these skills going forward. However, in practice, these ideas are reflected far less often than their more didactic counterparts, which include lectures and whole group instruction, which inherently lack student choice and depth of knowledge. It is absolutely essential for instructional leaders to be able to deconstruct teachers' reasoning for creating lessons that not only build a solid core of subject knowledge, but promote and build critical 21st-century pedagogy as well.

The purpose of this qualitative case study was to illuminate considerations teachers make for the inclusion of 21st-century skills, knowledge, and content in their instruction during the pre-active stage of teaching in one Midwestern urban middle school setting. It was the intent that the findings from this study would provide insight to develop deeper understanding of how teachers account for 21st-century skills and knowledge in their instructional practices. This understanding will better guide instructional leaders as well as classroom practitioners toward a more rigorous and comprehensive 21st-century aligned pedagogy. This study sought to obtain descriptive information for how teachers account for 21st-century skills and knowledge in their instruction while in the pre-active stage of teaching. The central and sub-questions for this study were as follows:

Central question: What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?

Sub-questions:

1. What teaching decisions do teachers make in the pre-active stage of teaching within the standardization movement that drive curriculum and instruction?
2. How do teachers address the needs of diverse learners in the pre-active stage of teaching?
3. How do teachers plan for teaching 21st-century knowledge and skills in the pre-active phase of instruction?

To explore these questions with regard to teachers' decisions in the pre-active stage of teaching required an analysis and integration of personal assumptions, experiences, and published literature which provided the foundation for the theoretical context of this study. The theoretical framework is described in the following section. It is critical that classroom teachers understand that their teaching interventions and beliefs about their impact on student learning and development are important.

The goal of this qualitative case study was to examine teachers' decision making in the pre-active stage of teaching to illuminate considerations and inputs with regard to 21st-century skills and knowledge. This study was conducted through a qualitative inquiry process. Implementing a case study design allowed for a deeper understanding of teachers' practices with regard to lesson creation, design, and implementation. In this chapter, I elaborate on the rationale for a qualitative research paradigm, the theoretical traditions selected, the design of the study, including the setting and participants, data sources,

sampling techniques, and validity and reliability issues and concerns. I conclude this chapter with a discussion of ethical considerations and limitations of this study.

Rationale for Qualitative Research

Qualitative research is a form of research focusing on descriptive data; one's own written or spoken language and observations of practice and behaviors. The researcher is guided by curiosity for studying and experiencing people in their lived reality. The study was situated in a qualitative paradigm to better understand the phenomenon as it occurred in the real-world. It is important to understand how and why classroom instructors design, create, and implement the lessons and instructional practices they do. Qualitative research attempts to seek the essence of people, objects, and situations (Berg, 2004) through the use of words and written language. Creswell (2013) wrote, "Detailed description means the researcher describes what they see...and provide[s] an interpretation in light of their own views or view of perspectives in literature" (p. 184). The degree to which this study brings light to the phenomenon was determined in part by how well I was able to paint a picture of it through words. Through detailed thick description, I was able to illuminate teachers' voices to help me understand, interpret, and make meaning of the phenomenon. Descriptive written language more readily and colorfully created the images that captured and spoke to the essence of the study.

It was through qualitative inquiry and the formulation of descriptive language that I was able to build a detailed description of the phenomenon that elucidates the issue to a much more in-depth and comprehensive level than a quantitative study could promise. "Qualitative research allows the researcher to familiarize her/himself with the problem or concept to be studied, and perhaps generate hypotheses to be tested" (Golafshani, 2003,

p. 1). As quantitative research seeks to find causal determination and generalizations of findings, qualitative research seeks to intimately illuminate the qualities of some phenomenon (Hancock, Ockleford, & Windredge, 2009). Situating this study in a qualitative paradigm allowed me the flexibility to study the phenomenon through naturalistic inquiry and develop a detailed thick description through interactions with those who experience this phenomenon. The researcher, as Miles, Huberman and Saldaña (2013) posited, “attempts to capture data on the perceptions of local participants from the inside through a process of deep attentiveness, of empathetic understanding, and of suspending or bracketing preconceptions about the topics under discussion” (p. 9).

As an educator, I am drawn to people and the human capital who serve to make up the organization. Qualitative research allows for and necessitates the researcher to fully and completely immerse herself within that data source. The researcher, according to Miller and Alvarado (2005), “seek[s] to understand the world from a participant’s point of view, by listening to or observing a person in a natural environment” (p. 348). The natural environment for this study was middle level classroom settings in which the co-researchers teach. As I was immersed in the culture that I was studying, the research and its findings were subject to my interpretations of the world around me and the meaning I constructed from these experiences. Qualitative research does not concern itself with generalizations and attempt to sterilize the researcher’s own experiences from the study. Rather, qualitative research attempts to balance what Patton (2015) describes as “context sensitivity.”

The researcher places findings in a social, historical, and temporal context; careful about, even dubious of, the possibility or meaningfulness of generalizations across time and space; emphasizes instead careful comparative case analyses and extrapolating patterns for possible transferability and adaptation in new settings. (p. 47)

Qualitative researchers, according to Creswell (2013), “build their patterns, categories, and themes from the bottom up, by organizing the data inductively into increasingly more abstract units of information” (p. 45). The strategy of induction, according to Patton (2015), “allows meaningful dimensions to emerge from the patterns found in the cases under study without presupposing in advance what those important dimensions will be” (p. 64). I utilized case study to explore teachers’ experiences with the phenomenon guided by heuristic inquiry. The hope here was that through the study of a somewhat unique individual, insights could be gained into the phenomenon. This study sought insight into the phenomenon as experienced and reported by the individuals who were in a position to experience it.

The study was situated in a qualitative paradigm to better understand the phenomenon as it occurs in the real world. Qualitative inquiry, according to Grbich (2013), “can help assess the impact of policies on a population; it can give insight into people’s individual experiences; it can enable the exploration of little known behaviors, attitudes and values” (p. 3), thus helping to elucidate considerations teachers make in the pre-active stage of teaching with regard to lesson creation and delivery. A qualitative paradigm allowed me the flexibility to study the phenomenon through heuristic inquiry and develop a detailed, thick description through interactions with those who experienced this phenomenon. Thick description, a term first coined by Geertz (1973), refers to a description for reporting on participants’ meanings with an insider’s view that best captures their realities.

This inductive process allows the importance of interpersonal relationships to be a part of the study. Frankel and Wallen (2003) defined this characteristic of qualitative research through what they call “personal contact and insight” (p. 430). The researcher is part of the culture and phenomenon and is directly involved in the lived experiences of the

people and phenomenon under study. Accordingly, “the researcher’s personal experiences and insights are an important part of the inquiry and critical to understanding the phenomenon” (Frankel & Wallen, 2003, p. 433).

I am a part of the culture in which the study is conducted; therefore, I wanted to embrace my experiences with the phenomenon, and heuristic inquiry allows for this. The heuristic tradition informs the study from an emic perspective by providing a lens to the culture from the inside out. As an administrator in the district, I have several formal and informal contacts with teachers in the area of instruction and classroom practice. Heuristics helps account for those experiences in the research without trying to quantify the nature of what those experiences share. In heuristic research, Moustakas (1990) pointed out, “the investigator must have had a direct, personal encounter with the phenomenon being investigated” (p. 14). Heuristic inquiry allowed my own experiences with teaching, instructional design and delivery, and teachers’ pedagogical decisions to better help me understand the phenomenon by interacting with and making meaning of what others report. It is in this fashion that I was able to construct a thick, rich description of the phenomenon and reported experiences and perceptions.

The constructivist tradition served as a larger framework from which to analyze and interpret the phenomenon as reported. The constructivist tradition is concerned with exploring how people in a particular setting construct reality. The constructivist tradition asks, how have people in this setting constructed their reality? Golding (2011) posited, “the constructivist perspective is that learning is a process of interpreting and organizing information and experiences into meaningful units, transforming old conceptions and constructing new ones” (p. 468). Teachers’ beliefs and their commitments to those beliefs

are the strongest influences on student achievement that teachers control. Furthermore, having the appropriate mind frame and believing teachers can change student outcomes impacts student achievement significantly (Hattie, 2012).

The constructivist tradition ensured that the teachers' beliefs about instruction and the impact of those beliefs were fully realized. Although my emic perspective served to inform much of the study, it was the analysis from the constructivist tradition that may serve to shed the most insight into how this culture has actually constructed reality with regard to their beliefs, ideas, and practices for content selection and instructional delivery. Do teachers perceive themselves to be effectively addressing students' needs when they are planning and designing lessons? Are teachers making a conscious effort to utilize both didactic and maieutic pedagogy in their instruction? The constructivist tradition helped to check the disconnect between what is being reported and what is being practiced. It is this disconnect between what teachers know about instruction and learning and what they do to promote learning, that the constructivist tradition helped to frame. The convergence of these several traditions provided the necessary framework and perspective from which to examine the phenomena. The district in which the study was conducted also provided a rich platform to better illuminate the study by providing a diverse population and unique setting.

Case Study

This case study of five middle school teachers from one urban school district was influenced by heuristic inquiry and constructivism. Case study, as Frankel, Wallen, and Hyun (2012) defined, is "a form of qualitative research in which a single individual or example is studied through extensive data collection" (p. 636). Yin (2009) described case study "as an empirical study inquiry that investigates a contemporary phenomenon within its

real-life context; when boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (p. 18). A case study may contain a single or multiple case studies (Yin, 2009). The study sought to gather data from five different teachers into the phenomenon, which characterized the inquiry as a multiple case study, with each participant characterized as a single case.

Qualitative case study research is described as a form of research that focuses on the participant’s own words, observable behaviors, and the descriptive data that results (Taylor & Bogdan, 1998). Case study is concerned with the investigation of real life cases situated in current contexts and settings (Yin, 2009). Case study research is more about the selection of what to study rather than a methodology that governs the study (Stake, 2006). Other researchers have described case study as a detailed dive into a setting, a group, event, or subject (Bogdan & Biklen, 2007; Creswell, 2013; Patton, 2015). According to Stake (1995), cases are to be classified into one of three different categories: intrinsic, instrumental, and collective. Instrumental cases are considered a tool for exploring an issue, constructing theory, or drawing generalizations. A collective case study consists of exactly that, the study of multiple instrumental cases, while the intrinsic case study is often guided by the researcher’s natural curiosity and interests, which is the case for this study.

A case study may be selected for its uniqueness, an insight into the phenomenon that others do not have, or for what it may be able to reveal about the phenomenon (Merriam, 2009). To identify a case, according to Bogdan and Biklen (2007), the researcher must first “cast a wide net” (p. 59). As I thought about how this study had evolved over the many years it has been incubating within me, I contemplated and grappled with many paths of possible exploration to uncover the phenomenon before landing with the unit of analysis:

teachers' pedagogical decisions in the pre-active stage of teaching. This case study stands on its own as a detailed and rich story about the people, organization, events, and programs while in the bounded system (Patton, 2015). The study is bounded by the setting, participants, and questions (Creswell, 2013).

Qualitative research situated in a case study design explores an occurrence using a variety of data to reveal and illuminate insight into the phenomenon in question (Yin, 2009). These individual cases, through their responses to interviews, provided significant data that helped to bring light to the phenomenon under study. These cases were examined for similar patterns of meaning to establish continuity within themes to establish a multiple case data collection. Multiple-case sampling adds validity and confidence to findings. "Looking at a range of similar and contrasting cases, we can understand a single-case finding, grounding it by specifying how and where and, if possible, why it carries on as it does" (Miles, Huberman, & Saldaña, 2013, p. 33).

Nestling or layering (Patton, 2015) the case study involving several teachers who have constructed a reality within the phenomenon was intended to provide for me an understanding of the considerations teachers make to account for 21st-century skills and knowledge in their instruction. This primary perspective of those who experience the realities of the phenomenon through their daily lived experiences helped me to expand my personal assumptions and mental models I had developed during my tenure as a classroom educator. It was my hope that through this inductive process I could build a detailed, thick description of teachers' experiences and reflect on current instructional practices to better align education to the necessities of the 21st-century learner. Again, I utilized heuristic

inquiry and constructivism to illuminate teaching practices that were developed and designed within a social construct to uncover what influences those important decisions.

Heuristic Inquiry

The theoretical tradition of heuristic inquiry established a critical framework from which to explore the phenomenon in this study. Phenomenology, according to Taylor and Bogdan (1998) “is committed to understanding social phenomenon from the actor’s own perspective and examining how the world is experienced” (p. 3). While heuristics is a form of phenomenology, according to Douglas and Moustakas (1995), it differs in four distinct ways:

1. Heuristics emphasizes connections and relationships, while phenomenology encourages more detachment in analyzing and experience.
2. Heuristics leads to depictions of essential meaning and portrayal of the intrigue and personal significance that imbue the search to know, while phenomenology emphasizes definitive description of the structure of the experience.
3. Heuristics concludes with a creative synthesis that includes the researcher’s intuition and tacit understandings, while phenomenology presents a distillation of the structures of experience.
4. Whereas phenomenology loses the persons in the process of descriptive analysis, in heuristics the research participants remain visible in the examination of the data and continue to be portrayed as a whole person. Phenomenology ends with the essence of the person in the experience. (p. 43)

As I am part of the culture that was my unit of focus, my experiences, perceptions, relationships, and interactions with subjects served to create a unique lens and perspective from which to study teacher resistance to instructional change. Heuristic inquiry, according to Moustakas (1990), is a “process of internal search through which one discovers the nature and meaning of experience and develops methods and procedures for further investigation and analysis” (p. 9). As the researcher, I must allow the inductive process to continue uninhibited by assumption and preconceived notions with regard to the results of whatever the data may yield. The researcher is present throughout the inquiry process and while

understanding the phenomenon with increasing insight, the researcher also experiences self-awareness and self-knowledge (Moustakas, 1990).

This self-awareness also extended to knowing and understanding as professionals, the teacher participants who volunteered for this study. The participation protocols were reviewed individually with each teacher at the onset of this process, as well as before each interview and journal reflection collection. It was made clear to participants that their participation was voluntary and they could opt out at any time without repercussion. Additionally, teacher participants understood their participation was not connected to or related in any way to their evaluation as classroom teachers and would not be evaluated by me this school year. Although there was a risk that teacher participants would be hesitant to disclose with sincerity their thoughts and beliefs, I was confident that my relationship and familiarity with the participants allowed for a truer reflection of their experiences with the phenomena and helped build a richer description of it.

Objectivity in qualitative research, particularly studies that utilize the researcher's experiences, have often been questioned. However, working so closely within the unit of study made it difficult to remain objective to the studied phenomenon. Frankel, Wallen and Hyun (2012) described this un-objectivity as "empathic neutrality."

Complete objectivity is impossible, pure subjectivity undermines credibility; the researcher's passion is understanding the world in all its complexity—not providing something, not advocating, not advancing personal agendas, but understanding; the researcher includes personal experience and emphatic insight as part of the relevant data, while taking a neutral nonjudgmental stance toward whatever content may emerge. (p. 433)

My experience with the phenomenon and the culture in which it exists undoubtedly shaped the lens with which I analyzed, studied, and interpreted the lived experiences of the participants. Patton (2015) explained, "Heuristic inquiry focuses on the intense human

experience, intense from the point of view of the researcher. It is the combination of personal experience and intensity that yields an understanding of the essence of the phenomenon” (p. 119). I utilized observations, interviews, and participant reflection journals in an attempt to study the phenomenon with a comprehensive approach. As Patton (2015) posited, “the rigor of heuristic inquiry comes from systematic observation of and dialogues with self and others” (p. 119). It is the inevitable dialogue with self that must be accounted for.

Working closely with the subjects that ultimately provided the data for the study made heuristic inquiry ideal. Heuristic inquiry allows the study to remain personalized and ensures the voice of the researcher remains central throughout. It is my voice and experiences within this culture and the phenomenon that helped to make meaning of it. Teachers and the culture in which they work to create and implement instructional lessons naturally provided a rich experiential environment capable of providing a unique and rich lens with which to illuminate teachers’ decisions with regard to instructional practices. However, heuristics allowed me as the researcher and my experiences as a classroom instructor to inform and enrich the study.

Social Constructivism

Yero (2001) established “many beliefs about school come from teachers’ experiences as students. Teachers have formed impressions about themselves, their abilities, the nature of knowledge, and about how learning takes place” (p. 27). As Yero’s comments suggest, the practice of educating students has deep roots that get to the foundation of who we are as educators. Fullan (2001) wrote, “the hardest core to crack is the learning core—changes in instructional practices and in the culture of teaching [are most difficult to

change]” (p. 181). Kise (2006) expressed, “changing teacher[‘s] beliefs often involves changing the person the teacher is” (p. 78). Teachers do not develop these thoughts, ideas, philosophies, and practices in a vacuum. They are socially constructed in the context of an organizational system. This system is organic in the sense that it responds to the social tensions of those from within the system. As teachers are part of that system, they will be influenced by it as well. Social constructivism, according to Wilson and Clissett (2010), “seeks to generate the most sophisticated description or explanation of a particular setting as a result of an interactive process between the researcher and the participants, many of whom are likely to hold differing perspectives about individual situations” (p. 678). Constructivists, according to Patton (2015) concern themselves with “how [have] the people in this setting constructed reality? What are their reported perceptions, truths, explanations, beliefs, and world view? What are the consequences of their constructions for their behaviors and for those with whom they interact?” (p. 121)

As previously stated, teachers tend to construct their ideas and philosophies about educating and teaching from their prior educational experiences. Those experiences and subsequent beliefs become ingrained in a teacher, affecting how they construct the reality around them and choose to educate and even deliver instruction. The constructivist tradition is a holistic worldview where “individuals seek to understand the world they live and work” (Creswell & Poth, 2018, p. 24). Situating the study in a constructivist paradigm forced me as a researcher to examine how the whole impacted the part. Acknowledging how the greater culture may interact and ultimately shape teachers’ decisions about instruction was critical to fully understanding the phenomenon. Through teacher interviews, observations, and

lesson reflection journals, I was able to glean insight into how the larger culture influenced teachers' decisions about instructional practice.

The Role of the Researcher

The heuristic nature of this study as well as my own experiences with the culture and those who experience the phenomenon placed me as the researcher, in a unique position within the study. Creswell and Poth (2018) identify the researcher as a “key instrument.” As a qualitative researcher, I was the primary instrument for collecting, filtering, and analyzing data. As the key instrument, my background and experiences were relative to the credibility of the design (Merriam, 2009). Judgments about the significance of findings are in this way connected to the researcher's integrity and credibility (Patton, 2015). The challenge with the researcher serving as the primary instrument in the research is that there might be associated bias, which can have an influence on the research study. To ensure researcher bias is controlled, it is critical that the researcher frequently evaluate and monitor how their individual constructs may be shaping their interpretations of them (Merriam, 2009).

The researcher must examine their beliefs, assumptions, experiences, and values and their connection to the problem being studied as well as how they influence the construction and implementation of the study (Maxwell, 2013). This process is known as bracketing. “Bracketing is a method used by some researchers to mitigate the potential deleterious effects on unacknowledged preconceptions related to the research and thereby to increase the rigor of the project” (Tufford & Newman, 2012, p. 81). A further discussion about the researcher's biases as they relate to the study is presented in the limitations and ethical considerations portion of the study design.

The Design of the Study

Selection of Site and Participants

The setting for this study was a large urban middle school with a reported population of 626 students. Seventy-four percent of the families at this school qualify for free and reduced lunch. The student demographics include 62% Black, 18% White, 10% Multi-racial, and 10% Hispanic. This site has one of the highest transient rates of any of the secondary buildings with 110 students new to the district joining the school for the first time. The school district is positioned between two larger urban districts and has experienced significant population shifts over the past decade. The school is reflective of the larger community with regard to socioeconomics and diversity. The surrounding area is a combination of older single-family homes and multi-family housing in close proximity. The school itself has seen a multitude of administrative changes over the past five years with a new principal, five different associate principals, and a majority turnover in staff during this time. There are fewer veteran and experienced teachers remaining in the building, with the average teaching experience at 9.1 years compared to the state average of 12.6 years of experience. Only 38.6% of certified staff at this middle school have obtained advanced degrees, while the state average is a little over 50%. This particular district finds itself in an unfortunate financial state, which has resulted in the reduction of staff and cuts to extra-curricular programs and other student services.

My access to the building as a researcher was not challenging, as it is the building in which I am employed. Gaining access to teachers, classrooms, and statistical data, given the nature of my position, was also not a concern. Because of this access to information, both educational and personal precautions were taken to ensure the participants and the school

retained anonymity. However, as Frankel, Wallen and Hyun (2012) posited, “almost all educational research involves activities that are within the customary, usual procedures of schools or other agencies and as such involve little or no risk” (p. 58). As it was the intention of this study to explore and observe participants in the practice of instructional delivery, which is a natural function of the organization, there was little risk to individuals. The data compiled was not necessarily concerned with the individual; rather the intent was to find commonalities between participants to yield a holistic description of the phenomenon.

The co-participants for the study were selected using a purposive sampling technique. Purposive sampling assumes that the researcher wants to uncover and make meaning from insights and therefore must select a sample from which the most can be learned (Merriam, 2009). This does not preclude that subjects could have been selected based on how their positions within the context of the study represented accurately their experiences with the phenomenon. To attempt to gain a deeper understanding of teachers’ decisions accounting for considerations teachers make for selecting 21st-century skills and content in their instruction, a criterion-based selection process was implemented within the purposive sample. In criterion-based selection, according to Merriam (2009), the researcher “create[s] a list of the attributes essential [and then] proceeds to find or locate a unit matching the list” (p. 77). It is the multi-dimensional perspective the informants yield that can most comprehensively speak to the construct. Patton (2015) elaborated:

Choices of informants, episodes, and interactions are being driven by a conceptual question, not by a concern for representativeness. To get the construct we need to see different instances of it, at different moments, in different places, with different people. (p. 29)

It is for this reason I sought to ensure the sample population accurately represented the diversity of educators present in this school with regard to age, number of years teaching, content area, grade level, and gender.

Specific criteria were established to select the purposive sample of informants. First, I invited all core teachers who had been teaching three or more years to participate. Core classes include communication arts, math, science, and social studies. Utilizing informants that taught in these disciplines ensures that the pool of candidates has had frequent experiences addressing content and lesson development and curriculum design through their weekly content team meetings. Additionally, any informant selected to participate would *not* be evaluated by me as the principal. Selected informants would either be evaluated by an associate principal or reassigned accordingly to account for any power differential that exists between the informants and me. To ensure maximum variation, considerations for areas of certification, years of teaching, and ethnicity were made.

By using these criteria, I established an informant pool who best spoke to the questions the study was seeking to answer. Purposive sampling focuses on selecting information-rich cases whose experiences with the phenomenon will elucidate the questions under study (Patton, 2015). Five informants were selected who not only represented the larger school community, but could also best speak to the phenomenon under study. Each informant was treated as a separate case study with the goal to find continuity and patterns of themes within the interview data.

Data Collection

Data for the study were derived from a variety of sources which included observations, interviews, and lesson reflection journals. As the researcher who has extensive

familiarity with the co-researchers and the culture in which the study was conducted, I chose sources who had the potential to yield significant insight into the phenomenon. Researchers do not simply study whatever is available, but use their own personal judgment to select participants whom they believe will provide the data they need to inform the study (Frankel et al., 2012). The data sources that I used added insight into instructional practices and curriculum implementation and include observations, individual and focused group interviews, and lesson reflection journals.

Interviews. For this study, I conducted both individual and focus group interviews. Each participant participated in one semi-structured one-on-one interview that lasted anywhere from 30 to 45 minutes. According to Patton (2015):

[W]e interview people to find out from them those things we cannot directly observe. We cannot observe feelings, thoughts and intentions. We cannot observe how people have organized the world and the meanings they attach to what goes on in that world. We have to ask people questions about those things. (p. 426)

It was my intent to utilize my familiarity with the informants to better probe and deconstruct barriers that may have existed in a formal interview setting. I also utilized a focus group interview in concert with lesson reflection journals to reveal the essence of teachers' decision making process. Frankel, Wallen and Hyun (2012) warned that "focus group interview [s are] not a discussion. Neither is it a problem-solving session, nor is it a decision-making group. It is an interview" (p. 462). This forum allowed for greater emphasis on teachers' voices rather than mine. It also yielded responses that had not have evolved through the individual semi-structured interview. I wanted the existence of colleagues to empower participants to be bold and truthful with their responses without fear of reprisal. One 35-minute focus group interview with all five participants was conducted after the

cross-case analysis was completed so participants could review emergent themes, ask questions, and make recommendations.

Interviewers must take notes during the interview regardless of whether it is being tape-recorded. Following each in-depth interview, the researcher needs to expand their notes into detailed descriptions of what was discussed or observed (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). Individual interviews were conducted using a semi-structured interview process. According to Merriam (2009):

Interviewing is more open-ended and less structured. The largest part of the interview is guided by a list of questions or issues to be explored, and neither the exact wording nor the order of the questions is determined ahead of time. This format allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to the new idea on the topic. (p. 88)

Interviewing in qualitative research is more open, spontaneous, and flexible; the interviewer is open to interpretations of the meaning of what is described (Kvale, 1996). The formulation of the research questions should not be so specific that alternative avenues of inquiry that might arise are closed off (Mack et al., 2005). However, there must remain some structure to the process to ensure the interview is productive and yields valuable data. Even though qualitative research is unstructured, it is not so unstructured that the researcher is not able to specify a research focus.

In an attempt to gain a thick, rich description of the phenomenon from the perspective of the participants, several types of questions (Frankel et al., 2012) were asked of participants. These included (1) background or demographic questions, (2) knowledge questions, (3) experience or behavior questions, (4) opinion or values questions, (5) feeling questions, and (6) sensory questions. Asking several different types of probing questions helped me create a better picture of the silent mental models informing a teacher's decision

making process as it related to content and lesson creation and delivery. The multiple meaning questions guide the inquiry in a multitude of directions to help construct a broader and more detailed image of teachers' experiences in planning instructional delivery. This multiple type questioning mirrors what Wiggins and McTighe (1999) called the *Six Facets of Understanding*, and suggested it is imperative to ensure meaningful learning is taking place.

After the interviews were conducted, a summary was typed from the field notes taken. Although the interviews gave me an insight into the perspective of the classroom instructor, I also needed to enter the physical setting in which the interactions between the instructor, student, and the curriculum played out. These participant observations assisted me in understanding the experiences of the teachers as they relate to the implementation of 21st-century skills and knowledge in their content.

Observation data. When I, as an instructional leader, reflect with teachers about their classroom practices, observe written lesson plans, and informally discuss best practice with teachers, we are more times than not in agreement. However, what is often revealed is that practice is not congruent with theory. The picture that is painted from first-hand observations is often much different than the form created from dialogue and narrative. The importance of observation is that it offers a first-hand account of the phenomenon under study, and when triangulated with other data sources, helps gather a more complete interpretation of the phenomenon being investigated (Merriam, 2009). The insight gleaned from in-setting observations should yield another layer of data critical to the understanding of the phenomenon. According to Mack, Woodsong, MacQueen, Guest, and Namey (2005), “as a qualitative researcher, we presume that there will be multiple perspectives within any

given community. We are interested both in knowing what those diverse perspectives are and in understanding the interplay among them” (p. 13).

Observations were conducted to yield data that would be more reflective and congruent with what happens in classrooms as far as instructional practices on a daily basis. Data obtained through observations serve to check against a participant’s bias by reporting directly what is observed (Mack et al., 2005). Observation data were collected from each of the participants through one 55-minute classroom observation where I recorded the type of instruction (i.e., direct, rote, banking style, teacher directed, lecture based, depth of knowledge [DOK] and how students were engaged). Observation protocols (see Appendix A) were created and utilized during classroom observations

Although I took precautions to limit bias, I still had concerns, as both researcher and immediate supervisor of the teachers being observed, that my presence would have a considerable effect on what I observed. Frankel and Wallen (2003) refer to this as the observer effect. “Unless the researcher is concealed, it is quite likely that he or she will have some effect on the behavior of those individuals being observed” (p. 453). Are the teachers delivering instruction and altering practices and procedures to comply with what they think I may be looking for? Has my presence influenced student behavior, thus altering what happens in the classroom? Classroom observation data were analyzed and compared to participant interviews. This practice highlighted inconsistencies between articulated beliefs and assumptions and classroom practice. Although there were no assumptions that there were or were not inconsistencies and/or cohesion between theory and practice within participants, this process allowed for identifying such data. According to Maxwell (2013), “[t]his strategy reduces the risk that your conclusion will reflect only the systematic biases

or limitations of a specific source or method, and allows you to gain a broader and more secure understanding of the issue you are investigating” (p. 94). In an effort to develop a broader and in-depth understanding of the experiences of classroom instructors as they relate to the studied phenomenon, documents, observations, and interviews were analyzed.

Lesson reflection journals. Each participant was asked to use the lesson reflection form (see Appendix B) and record reflections and insights from the lesson for five consecutive days. Collected reflection journals provided a valuable perspective in the data collection that helped offer a deeper insight into the unit of analysis. Documents can include a multitude of artifacts from policy documents, newspaper articles, photographs, television, and even chat rooms (Grbich, 2013). Documents are most useful and can, according to Patton (2015), provide the researcher data about many things that cannot be observed.

In general, two types of documents are available to researchers—public and private. Private documents include those that are created by individuals or private organizations for internal purposes. Private documents can include letters, diaries, notes, files and books. Public documents include those that are created by public organizations for public consumption and can include annual reports, media statements (Bogdan & Biklen, 2007). Again, for the purpose of this study, I collected lesson reflection journals from each of the five co-researchers for a period of five days. Teachers were asked to reflect on lessons and discuss the degree to which any of the elements from the 21st Century Skills Framework were reflected in their lessons. These documents provided another lens into teachers’ thinking as they were creating and planning for instruction. It also allowed me as the researcher to assess how many of the selected instructional strategies and learning targets are specifically addressing 21st-century learning and knowledge.

Data Analysis Procedures, Process, and Analysis

Qualitative data, in this case, may reveal the existence or absence of something that can illuminate the experiences of classroom practitioners. The parallels between photography and the vivid narrative it creates by capturing an image seem to relate well to the narrative created by capturing images of the phenomenon from varied sources.

Qualitative data help illuminate the essence of the phenomenon and reveal the existence or absence of factors, behaviors, ideas, and practices that speak to the research questions and sub-questions: (a) What beliefs and perceptions do teachers have about pedagogy? (b) What considerations do teachers in the pre-active stage of teaching make with regard to the selection, creation, and implementation of instructional tasks? (c) How do teachers plan for teaching 21st-century knowledge and skills in the pre-active phase of instruction?

The emergence of patterns and themes through what Moustakas (1990) described as the six phases of heuristic inquiry, which include “initial engagement, immersion, incubation, illumination, explication, and culmination of the research in a creative synthesis” (p. 27), brought insight and understanding into the research questions.

The first phase of heuristic inquiry, initial engagement, according to Moustakas (1990), is where the “investigator reaches inward for tacit awareness and knowledge, permits intuition to run freely, and elucidates the context from which the question takes form and significance” (p. 27). Seidel (1998) described qualitative data analysis as a “symphony based on three notes: noticing, collecting, and thinking about interesting things” (p. 1). My engagement with this topic has been ongoing over the past 12 years as a building administrator. Through initial engagement, this noticing and thinking about the context of

schooling in the 21st century, I formulated a theoretical framework and working questions that formed the basis for this study and allowed me a deeper understanding of the problem.

The second phase of heuristic research is immersion. My experiences with the phenomenon, participants, and the culture in which it occurs is one in which I have been immersed for the past half-decade as principal at Bella Vista Middle School. My concern for the readiness of students' post-secondary schooling and the inability of our educational institutions to significantly change the pattern of practice to meet the needs of 21st-century citizens has been compelling me as an educator for several years. Moustakas (1990) stated,

Once the question is discovered and its terms defined, the researcher lives the question in waking, sleeping, and even dream states. The immersion process enables the researcher to come to be on intimate terms with the question—to live it and grow in knowledge and understanding of it. (p. 28)

My complete immersion in this culture and trust I worked to build with the participants has helped me to gain a clearer understanding of how teachers are experiencing this phenomenon as well as what data sources could be collected that shed light and insight on the study.

Incubation, the third phase of the process, is where the researcher steps away from the intensity of the research and allows himself to gather thoughts, reflections, and develop understanding. According to Moustakas (1990), “the heuristic researcher through the incubation process gives birth to a new understanding of perspectives that reveals additional qualities of the phenomenon, or a vision of its unity” (p. 29). The period of incubation was intended, for me as the researcher, to lead to a more profound understanding and awareness of the phenomenon and its meaning (Patton, 2015).

The fourth phase of the process is illumination. During this phase, important textures and structures are revealed so that the experience is transparent and known in all its essential

parameters (Patton, 2015). Moustakas (1990) stated, “illumination opens the door to a new awareness, a modification of an old understanding, a synthesis of a fragmented knowledge, or an altogether new discovery of something that has been present for some time yet beyond immediate awareness” (p. 30). It is in this phase that an enumerative and thematic coding process was utilized to analyze the data. According to Maxwell (2013), “the goal of coding is not to count things, but to fracture the data and rearrange them into categories that facilitate comparison between things in the same category and that aids in the development of theoretical concepts” (p. 96). It is the grouping and labeling of this fractured data that makes it more manageable and digestible (Gribich, 2013).

I used a process of open-coding to assign tags or labels (Miles et al., 2014) to the descriptive or inferential data that was collected. Using line-by-line analysis, descriptive codes were assigned to data with the assistance of a NVivo 12 Qualitative Data Analysis Software. (2019). Descriptive coding, according to Miles et al. (2014), “entail[s] little interpretation. Rather, [the researcher] is attributing a class of phenomenon to a segment of text” (p. 57). Maxwell (2013) noted the importance this early phase of coding has on the whole.

This descriptive phase of analysis builds a foundation for the interpretive phase when meanings are extracted from the data, comparisons are made, creative frameworks for interpretation are constructed, conclusions are drawn, significance is determined, and in some cases, theory is generated. (p. 465)

Descriptive codes were categorized using a process called interpretive coding. As the researcher becomes more knowledgeable about the inner workings and culture created by those constructs, a more complex and insightful platform is yielded. Thus, the researcher has a more elucidated understanding from which to recognize interpretive themes within data.

Still, as the understanding of the data continues to evolve, the ability of the researcher to begin recognizing patterns and themes where none seemed present is enhanced. As the researcher becomes more familiar with the data, pattern codes are assigned to chunks of codes. Pattern codes are explanatory codes, ones that identify percolating themes, configuration, or explanation. They pull together a great deal of material into more meaningful units of analysis (Miles et al., 2014). It is the data categorized in its units and chunks that allows the process of thematic analysis to occur. The analysis process, as Jorgenson (2006) posited, is:

a breaking up, separating, or disassembling of research materials into pieces, parts, elements, or units. With facts broken down into manageable pieces, the researcher sorts and sifts them, searching for types, classes, sequences, processes, patterns or wholes. The aim of this process is to assemble or reconstruct the data in meaningful or comprehensible fashion. (p. 107)

Themes and patterns emerge, forming clusters and parallels (Patton, 2015). It is the emergence of these patterns and themes that brings insight into phenomena being investigated. Once themes have emerged and the researcher has, through illumination, synthesized the information for the new possibilities in it, the researcher is then challenged to creatively synthesize dominant themes.

The fifth phase of this process is explication. The purpose of this phase, according to Moustakas (1990), is to “fully examine what has awakened in consciousness, in order to understand its various layers of meaning” (p. 31). Through reflection and self-dialogue, the experience is further examined and delineated (Patton, 2015). Throughout the process of explication, the emergent themes are brought forward and a new awareness may come to light. Moustakas (1990) referred to this as a “synthesis of fragmented knowledge” (p. 30).

The final phase of the process is creative synthesis. Moustakas (1990) declared:

Once the researcher has mastered knowledge of the material that illuminates and explicates the question, the researcher is challenged to put the components and core themes into a creative synthesis. This usually takes the form of a narrative depiction utilizing verbatim materials and examples, but it may be expressed in other creative form. (p. 32)

Throughout this phase, I examined the relationship between patterns that existed during the course of this study to reveal the picture the data creates through cross-case analysis.

Through cross-case analysis, I was able to see processes and outcomes across many cases, to understand how they are impacted by the environment in which they exist, and thus to develop more complex descriptions of the phenomenon (Miles et al., 2014).

The understanding of variant themes and patterns emergent in the data through heuristic inquiry helps to uncover the core or essence of the pedagogical decisions teachers make about the creation and implementation of instruction. Through “creative synthesis” (Patton, 2015), I “[brought] together the pieces that have emerged into a total experience, showing patterns and relationships...communicating those findings in a creative and meaningful way” (p. 487). A discussion on findings in their entirety is presented in subsequent chapters. Following is a discussion of the limitations to this study.

Limitations, Validity, Reliability and Ethical Considerations

This study was seeking only to examine a very small sample of classroom instructors. This is a limitation that must be noted. Frankel, Wallen, and Hyun (2012) stated, “[a] limitation of qualitative research is that there is seldom methodological justification for generalizing the findings of a particular study” (p. 441).

First, qualitative studies have “face generalizability”; there is no obvious reason not to believe that the results apply more generally. Second, the generalizability of qualitative studies is usually based on explicit sampling of some defined population to which the results can be extended, but the developed theory can be extended to other cases. (p. 116)

Qualitative studies give attention to transferability or replication of the study versus concerns about being able to generalize to other populations, which is the intent of quantitative studies. Horn and McArdle (1992) referred to this transferability as cross-contextual validity. In practice, two conditions must be present to ensure replication. First, the theoretical concept must share the same meaning across contexts or in other settings. Secondly, it needs to be measured using the same metric (Jilke, Petrovsky, Meulman, & James, 2017). In this case, 21st-century skills and themes as identified by the Partnership for 21st Century Skills framework and the intentions of teachers in the pre-active stage of teaching would satisfy the consistency of both the theoretical concept and metric to gauge and assess the degree to which these are present in instruction to ensure replication and transferability.

As the researcher, I made no assumptions about what this study would reveal. It was my experiences in this culture that shaped the way I interpreted and viewed the phenomenon; however, I used several tools to protect against internal threats and researcher bias.

Validity and Reliability

According to Patton (2015), “no straightforward tests can be applied for reliability and validity. The human element is both the greatest strength and weakness of qualitative inquiry” (p. 433). “In qualitative inquiry, the researcher is the instrument. The credibility of qualitative methods, therefore, hinges to a great extent on the skill, competence, and rigor of the person doing the field work” (Patton, 2015, p. 14). Golafshani (2003) concluded that it is the reliability of the researcher more than the research itself that must be reliable.

[When] quantitative researchers speak of research validity and reliability, they are usually referring to a research that is credible while the credibility of a qualitative research depends on the ability and effort of the researcher. Although reliability and validity are treated separately in quantitative studies, these terms are not viewed separately in qualitative research. Instead, terminology that encompasses both, such as credibility, transferability, and trustworthiness is used. (p. 4)

To ensure that I conducted an examination of the phenomenon that was both credible and transferable, or valid, I utilized several strategies to rule out two of the most common types of validity threats in qualitative research: researcher bias and reactivity.

Qualitative research requires a degree of empathy on the part of the researcher to truly excavate the essence of the phenomenon and bring to bear the experience of the participant as they live it. As a researcher, I understand the difficulty and demands of creating and developing lessons that cater to all the variables required. Thus, it was critical that I develop a process for checking that selected data was valid and not simply a reaffirmation of my assumptions and preconceptions or biased or that the participants or setting had been influenced by my presence. Maxwell (2013) warned, “the validity of results is not guaranteed by following some prescribed procedure. Validity is a goal rather than a product; it is never something that can be proven or taken for granted” (p. 105). Having stated that, Maxwell also prescribed several validity tests to help “rule out validity threats and increase the credibility of [my] conclusions” (p. 109).

As discussed previously, crystallizing data collection from “a diverse range of individuals and settings, using a variety of methods reduces the risk of chance associations and systematic bias” (Maxwell, 2013, p. 112). Ellingson (2009) expressed the following:

[Crystallization] combines multiple forms of analysis and multiple genres of representation into a coherent text or series of relaxed texts, building a rich and openly partial account of a phenomenon that problematizes its own construction, highlight researchers; vulnerabilities and optionally, makes claims about socially

constructed meanings, and reveals the indeterminacy of knowledge claims even as it makes them. (p. 4)

In the process of creating and establishing a design for research, I incorporated a variety of data collecting strategies to develop a thick rich data set pertaining to teachers' decisions with regard to the creation and implementation of instruction. Collecting a variety of data also helps develop a "rich" data set and according to Maxwell (2013) "will provide a full and revealing picture of what is going on. This set of data [will] provide a rich, detailed grounding for, and test of [my] conclusions" (p. 111). Miles and Huberman (1994) added to this that findings can be "enhanced when they are confirmed by more than one instrument measuring the same thing" (p. 273). Replicating results through various data sources and between cross-case analysis within the study provided layers of validity.

Layering data sources as well as validity tests contributed to the credibility of the results. Another such test that was utilized throughout the data collection and reduction process was respondent validation (Maxwell, 2013) or informant feedback (Miles et al., 2013). Reaffirming with participants the true meanings of both their written and verbal words allows "local informants [to] act as judges, evaluating the major findings of a study" (Miles et al., 2013, p. 318). During the study, respondents were asked to reflect and reread interview transcripts and reexamine memos and documents, as well as patterns and findings, as they emerged. Respondent validation, according to Maxwell (2013),

is the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do and the perspective they have on what is going on, as well as being an important way of identifying your own biases and misunderstandings of what you have observed. (p. 126)

Many qualitative researchers find validity and reliability irrelevant because they are attempting to elucidate a specific situation or event as viewed by the individuals who are

experiencing it. Instead, the researchers highlight the integrity and fidelity of the researcher (Frankel et al., 2012). In this study, introspection created a constant evaluation and examination of me as the researcher while maintaining a steady focus on the research goals and purpose with regard to teachers' decisions related to instruction.

Ethical Considerations

Ethical issues always need to be accounted for when undertaking data analysis. As qualitative research, more specifically, heuristic inquiry, demands that the researcher immerse herself into the lived reality of her subjects for field observations, interviews, and document collection, it is understandable that ethical issues will arise. It is the researcher's responsibility to understand what ethical issues could arise and work to mitigate their impact on the study. For example, given my role as building administrator in the site the study was conducted, it was critical to take measures to ensure participants were not unduly *influenced* to participate given the power differential that existed. Precautions included participants reading and signing consent and volunteer forms (see Appendix C), reviewing protocols for individual and group interviews (see Appendix D and Appendix E), and affirming co-researchers could withdraw from the study at any time with no consequences, as well as not utilizing observations for the purpose of this study as part of the evaluation process for the participant.

Roosman and Rallis (2017) identified four ethical themes of which researchers must be aware: 1) The ethics consequence—What happens because of this action? 2) The ethic of rights and responsibilities—All people have fundamental rights that may not be denied, even for the greatest good for the greatest number; 3) The ethic of social justice—Researchers must use the principles of equity and fairness to assess which actions are ethically correct;

4) The ethics of care—What affect will these actions have on the human relationships that exist within this context? Not only is it the responsibility of the researcher to understand and work to reduce ethical threats to participants, the researcher must comply with IRB (Institutional Review Board) regulations.

Any research that involves human subjects must undergo review by the Institutional Review Board prior to the research being conducted. The University of Missouri-Kansas City (UMKC) Institutional Review Board (IRB) ensured that all ethical issues have been fully addressed in the protection of human subjects who volunteer to participate in research studies. As the principal investigator, I played a critical role in ensuring the anonymity, welfare, and rights of subjects, participants, and even the setting have been protected.

Significance of the Study

The importance of this study is most significant, as the field of education is forced to reflect, reassess, and redesign the way educators systematically educate children in this country. I do not see any major radical sweeping transformational movements on the horizon that will significantly alter the way our organizational systems educate children. Educational leaders must consider drastic alternatives to the current conventional box of education. We must redesign our current system to meet the rising tide of humanity (Cookson, 2009). Having said this, individual teachers and building instructional leaders must take up this task, as it is what they do on a daily basis that can most significantly bring about pedagogical change. Given this fact, it is important for instructional leaders to understand teachers' decisions about their pedagogical practices. Deconstructing teachers' decisions about lesson creation and delivery will give instructional leaders insight as to what considerations are attributed to both effective and ineffective practice in the pre-active stage

of planning. Understanding teachers' motivation and reasoning to incorporate both didactic and maieutic pedagogy in the classroom will help educators to better prepare students for 21st-century markets, information technologies, and global citizenship. Knowing this information is an invaluable tool as administrators begin the transformational tasks to promote and sustain effective pedagogical change that more accurately reflects the needs of 21st-century learners.

CHAPTER 4

FINDINGS

Innovations in technology and medicine and information systems are advancing at such a rapid pace, our schools are struggling to keep up. Teaching 21st-century skills in the context of these advances appears to be the response. However, 21st-century skills are not new. Critical thinking and problem solving have been requisite to the success of humanity for centuries. What is new, however, is the extent to which changes in our job markets and the world around us requires students to possess 21st-century skills to be successful in the globalized world. Students who are fortunate enough to attend high functioning schools or find their way into the classroom of a dynamic teacher are learning these skills; however, it is a matter of chance rather than a systematic design of our educational institutions (Rotherham & Willingham, 2010).

The purpose of this heuristic case study was to deconstruct teachers' decisions in the pre-active stage of teaching to illuminate considerations they make for teaching 21st-century skills and knowledge. The use of heuristics and constructivism worked in unison to take into account my personal experiences with the phenomenon and those who experience it—the teachers whose voices I wanted to include. My intent was to glean insight into how this culture has actually constructed reality with regard to their beliefs, ideas, and practices regarding content selection and instructional delivery in the pre-active stage of teaching 21st-century skills and knowledge. The findings of this study attempted to answer the central question: *What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?* The sub-questions that layered the central question were:

- a. What teaching decisions do teachers make within a standardized movement that drive curriculum and instruction?
- b. How do teachers address the needs of diverse learners in the pre-active stage of teaching?
- c. How do teachers plan for teaching 21st-century skills and knowledge in the pre-active phase of instruction?

Cases were constructed from individual semi-structured interviews, lesson reflection journals, observations, and focus group interviews. Through the qualitative nature of this study, I was able to gain insight into the lived experiences of classroom teachers and their understandings and perceptions of methodology and content. Each case is presented in this chapter, and the data captured in each case reveal their experiential knowledge of the phenomenon and collective story of the data. Through the process of within-case and cross-case analysis, aided by the use of NVivo 12 Qualitative Data Analysis Software(2019), I report on the themes and interpretive codes identified from the previously mentioned data sources that comprise the embedded cases and the collective case. The concurrent themes are then utilized to address and answer the research questions in Chapter 5. Before telling the story of the data, I introduce the participants and share my reflections regarding the research process.

Participants

The participants in this study included five female classroom teachers who taught grade levels ranging from sixth through eighth. Of the 43 certified teachers in the building, only three of them are male, and none of them met the requirements for participation. Four of the participants were classified as European Americans and one participant was classified

as Latina, which is reflective of the teaching population with regard to ethnicity. Core teachers who had been teaching for three or more years were invited to participate. In order to maximize variation, of those who indicated a willingness to participate in the research study, teachers from several content and grade level areas and with differing lengths of service were selected. All of the teachers who were selected for this study are teachers I currently work with or worked with in the past as a colleague and for whom I now have the privilege of providing leadership in my role as a building principal. The process of influence with regard to the role of researcher is noted as reflexivity (Maxwell, 2013). I was constantly aware of this throughout the process and kept a journal to record my reactions to the participants and their reactions to me. Although measures needed to be taken to neutralize power differentials, the relationships I had with each participant was a benefit. This rapport and trust we have made it easy for teachers to be open, forthright, and honest in their opinions and perceptions. Additionally, I constantly made it clear that I was not in the role of evaluator, and knowing them beforehand promoted trusting relationships.

To ensure that a high level of trust continued throughout this process, I sent each case description back to respective participants for review prior to the completion of reporting on the study. To account for the power differentials, I met with teachers in a location of their choice for interviews and regularly affirmed the consent protocols that if at any time they felt uncomfortable, they could discontinue the study. I collected data from the participants over a period of two months, during which I spent an average of four and a half hours with each participant. This included 30 minutes for consent form review, a 55-minute classroom observation, and 30 to 40 minutes for individual interviews. Participants spent an additional 90 to 120 minutes filling out lesson reflection forms. Finally, a 35-minute focus

group interview was conducted. This was ample time for me to develop a rich thick description of their experiences. In an environment where time is a precious commodity, the specific and limited time frame required from teachers also helped in the recruiting of participants to the study, as they knew their consent would not mandate time they did not have to give.

Reflections about the Process

The work of this dissertation really started at the beginning of my administrative career some 13 years ago. During this time, I have been trying to reconcile the idea of teacher autonomy and creativity with the pressures of standardization and accountability and the impact this has had on teaching critical 21st-century skills and themes. When I talked with teachers, they knew and understood the importance of incorporating 21st-century skills and knowledge into the context of their curriculum. However, with the exception of three of the four Cs (critical thinking, collaboration, and communication) the other themes—technology and media literacy, global awareness, life and career skills, and creativity—were significantly less present in instruction. The pragmatic goal of this study was to capture the perceptions of teachers and to illuminate the considerations they make for incorporating 21st-century skills and themes into instruction. The crystallization of the multiple data sources contributed to this goal. Ellingson (2009) stated, “Crystallization adds another way to achieve depth through the compilation not only of many details but also of different forms of representing, organizing, and analyzing those details” (p. 10). The multiple data points aided in this goal as well as the focus group session, which supported teachers’ opportunities to reflect on the findings with me.

If there was an area throughout this journey that I was apprehensive about, it was the process of qualitative inquiry and research. As an educator, I am not trained as a formal researcher. Initially, I spent several hours in frustration surrounded by papers and data points that seemed to elude commonality. However, as I immersed myself in the data, reviewed literature about qualitative inquiry, leaned on my committee chair for direction, and let go of prejudices and presumptions about the data, the fog of ignorance began to lift and a heightened understanding about the process and the data I collected began to emerge. What I now understand is that educators are indeed professional researchers. Educators tend to rely too heavily on quantitative data, especially in the hyper-assessment driven climate in which educators currently find ourselves. Neuman (2016) argued that a focus of data-driven decisions versus data-informed decisions often misplaces the types of instruction students receive. In light of this experience, I have a new appreciation for the rich meanings that can come from relationships, lived experiences, and the stories of the people around me and how all of this information can be utilized to uncover and glean insights into phenomena and the questions, as an educator and researcher, I am constantly pursuing to meet the needs of students.

Telling the Story of the Data

For the purpose of this study, I used **four** different sources of data which I examined concurrently with the research questions. Through the initial interviews, I was able to gain insight into each participant's understanding and familiarity with 21st-century skills and knowledge as well as their perceptions about the effectiveness and flexibility of their respective curriculums to include relevant themes they deemed necessary. In addition to interviews, lesson reflection journals were collected. These journals were designed around

the research questions and allowed participants another vehicle to express and share their experiences with the phenomenon. Classroom observations were also conducted with each of the participants to identify 21st-century themes and skills, instructional methods, and evidence of the types of considerations teachers may have made for the lesson. Finally, I utilized a focus group interview to not only ensure accuracy of the emergent themes but also to give participants an opportunity to add final thoughts and recommendations related to the findings. This also allowed me another opportunity to review participant protocols and to affirm the nature of this study was voluntary and not attached to any supervision or evaluation and that participants could opt-out at any time without any consequences to their personal or professional lives.

After reviewing and briefly describing each theme, I asked the participants the following questions:

- Based upon the themes presented, which themes resonated with you more and why?
- Did any of these themes challenge any of your assumptions about teachers' intentions or thinking with regard to integrating 21st-century skills and knowledge? If so, identify and explain.
- Do you feel you have reflected on practices or beliefs around 21st-century skills integration after participating in this study? If so, explain.
- Are there recommendations based on the themes or purpose of this study that you would like to make or add?

The crystallization of these data points provided a thick rich description that helped to illuminate answers to the research questions. The remainder of this chapter presents the

participant cases as well as the themes and interpretive codes identified through within-case analysis, followed by cross-case analysis and answering the research question and sub-questions and laying a ground work for implications and recommendations in Chapter 5.

Cases

These cases represent the lived experiences of classroom teachers and how they have constructed meaning with the phenomenon within the context of their classrooms and the larger paradigm of education. I have used the pseudonyms the participants selected for themselves in place of their names. Their experiences and insights helped to address the research questions, allowing co-researchers to examine the nebulous concept of the pre-active stage of teaching and grounded in their realities and lived experiences. In the data analysis phase, four major themes were identified and included: **Pre-Active Stage Inputs**, **21st-century Framework Comprehension**, **Barriers to Implementation**, and **Fidelity to Curriculum**. At least two interpretive codes were required to be considered a theme. Each of the interpretive codes was generated from multiple descriptive codes, the genesis of each of the themes. These findings are presented through the cases and organized by each participant, beginning with a brief introduction followed by the emergent themes in each of the cases.

The four themes were not equally represented in each of the cases, and although some of these themes are present in each, the interpretive codes often differed. If more descriptive codes were identified for a particular interpretive code, then the level of description for the theme would be greater for that case. The first time a theme was identified within a case, it was provided more descriptive information. The findings of the within-case analysis are organized by each participant with a brief introduction of each

followed by a report of the themes with thick description of phenomena. This allows the reader an opportunity to learn more deeply about the participants' experiences as an educator and how they were positioned to give us insight into the phenomenon. The following cases describe the stories of Katie, Sarah, Penelope, Hazel, and Merica. They are presented in no particular order, each having equal value.

Case One: Katie

Students walked around the room with the buzz and exuberance found only in middle school students. In groups of three to four they moved from poster to poster, taking notes, conferring with one another, sharing thoughts and opinions in rapid succession, overlapping one another as they did. The timer on the smart board counted down. "Why does he look like a gorilla?" one boy, asked. "That's just scary!" a girl from the same group stated loudly. "It says we're supposed to find the author's purpose," another girl, said. "It's a picture, bro! There's no author." Katie, a self-proclaimed history buff, is an eighth grade English Language Arts teacher. Her students were on a gallery walk exploring different aspects of WWII, including propaganda posters, to build background knowledge for their upcoming unit about the novel, *The Boy in the Striped Pajamas*.

Katie has been teaching for seven years at this site after obtaining a degree in political science. For six years, Katie worked in the area of human resources in corporate America. She realized this work did not fulfill her, and her passion for reading and writing would be better served in a classroom. She went back to school and obtained her teaching certification as well as Master's in Curriculum and Instruction. Katie grew up in a small rural town in the same state and talks frequently about the contrasts between her experiences growing up there and those of the students she serves. I heard in Katie's voice the anger as

she talked about the intolerance of those in her home town. Katie cannot help inserting the faces of her students into those memories of ignorance and prejudice and feels strongly about equity through education. She is a fierce advocate for her students. I find it safe to say Katie is student-centered, and this focus on students is on full display in her classroom on this day.

Being student-centered was a strong theme in Katie's interview, observation, and lesson reflection journals. Katie spends significant time considering many aspects of her students as she is planning for instruction as observed through phenomena in the data related to **Pre-Active Stage Inputs and Considerations**. During this planning for cognitive development or group dialogue phase, teacher talk is often connected to teachers' beliefs about teaching and learning as well as perceptions about other factors such as students and content (Gill & Hoffman, 2009). During Katie's interview, as she began discussing her intentions with planning in the pre-active phase of teaching, the interpretive code, *student inputs*, was reflected in the following statement:

How I'll differentiate instruction, also taking into consideration grade level, reading level, multi ability, composition of the classroom, what kids are going through on a daily basis, if not anything else. So, nearly every factor that you can think of, especially their background knowledge on something, because without that, there's no point in me teaching if they have nothing to relate it to.

Present in this statement are several considerations Katie made for students that include level of academic prowess, reading proficiency, prior knowledge, social/emotional considerations, and developmental considerations. These specific inputs and considerations were utilized as she described planning for instruction were a consist focus for Katie. I could hear in her voice and observe in her demeanor how positive perceptions regarding meeting the needs of students influenced decisions about what to include in her lessons.

What does being student-centered mean? This is a buzzword in education, and all too often teachers say they are student-centered. I think they mean to say that they care about kids. But how is this revealed through instruction? Absent from their analysis is the opinions of the students they serve. Would the students they teach say they are student-centered? If not, could they as teachers claim to be? On the day I observed Katie, her students were interacting with each other and were visibly engaged with both the content and their classmates. My notes from the observation stated the following: “students are familiar with learning in this way. Small group conversations about the learning coupled with high interest photos for analysis and student movement reflects her intentional considerations for student needs and interests. She’s letting kids be kids.”

Instructional inputs were another interpretive code connected to **Pre-Active Stage Inputs and Considerations** that was strong in Katie’s interview and lesson reflection journals. In concert with differentiating instruction, Katie clearly accounts for instruction and methodology as she is considering lessons. As we continued further in the interview, Katie added the following:

The other thing that I always look at are ways to incorporate communication and collaboration in class, because especially with 8th graders, 14-year-olds love to talk, so you’ve got to support that basic need anyway. So instead of trying to fight it, I try to figure out, very consciously, how I can incorporate that into instruction.

The developmental needs of middle level learners are a critical area of understanding necessary for student success. Katie’s understanding of this is apparent in the statement above. In Katie’s lesson reflection journals, there was evidence of over 14 different instructional strategies she utilized over a period of five days, including gallery walks, Socratic seminar, Keagan strategies, catch and release, and think-pair-share. Student success

or failure is largely determined by how well teachers are able to deliver instruction to their students (Early et al., 2014; Martella & Merchand-Martella, 2015; Rowe, 2003).

Successful instructional frameworks for middle level instruction must include collaboration and communication. Present in her observation were a variety of instructional strategies that required students to communicate, interact, and collaborate. During the WWII gallery walk, after the student with great confidence declared, “It’s a picture, bro! There’s no author,” I found it interesting to see the group grapple with this question and how they ultimately landed on the idea of artist as author. “No, the artist is a writer with the pictures they make!” one of the group members claimed. “So then the author’s purpose is to make the Germans look really ugly and mean!” the first girl stated. Later, Katie would push those students to stretch their thinking and draw conclusions about “why” the author would do this and how it was related to propaganda. This pushes students to a higher level of analysis and deeper thinking, another intentional input identified in Katie’s data.

Critical thinking was attached to the interpretive code, *implementation frequency*, a significant presence in Katie’s lesson reflection journals and interviews. In one reflection journal she wrote, “students had to use reasoning skills to draw conclusions about the Holocaust and its impact on Jewish society after analyzing multiple facets of the historical event.” Present in this statement are exactly the types of content neutral, critical thinking skills I would want Katie to account for as she is planning lessons. Reasoning, drawing conclusions, and making arguments while supporting them with multiple sources and analyzing those arguments are skills that global citizens need to be successful.

Implementation frequency is attached to the theme, **21st-century Framework Comprehension.**

Teachers cannot and will not incorporate new instructional strategies if they do not fully understand the benefit of those strategies or are unfamiliar with the research behind them. What a teacher knows about teaching and learning influences the educational goals the teacher establishes as well as activities they select for successful learning (Davis et al., 2011). The theme, **21st-century Framework Comprehension** speaks to this issue. If teachers are not familiar with the 21st Century Skills Framework or does not understand how that framework can be married to their content, they will not likely find ways to integrate these skills with learning interventions. Learning and innovations skills, the four Cs—specifically, critical thinking, followed by communication—were strongly present in four of the five lessons, while collaboration was moderately present in three of the lessons, and creativity was less obvious in two. In Katie’s reflection journals, as she evaluated lessons for learning and innovation skills, she recorded the following:

Students were assembled into multi-ability groups. I counted them off to appear as though it was a random selection, but I was intentional with my selections. Students were instructed to discuss the prompt/images/quotes with their group. Respond to the prompt and share with peers. This approach was intended to expand student perspectives and communicate multiple points of view.

In another journal, regarding collaboration, she noted, “Students had to work together to create a presentation based on their research findings. They were responsible for gathering, compiling, and disseminating the information to their classmates.” About the skill of communication, she wrote, “students must communicate, both written and oral, with each other to relay the information collected during research.” I could see a direct correlation between Katie’s familiarity with the framework and her perceived importance of each theme or skill and its reflection in instruction. During her interview, she stated the following:

After Learning and Innovation skills (the four Cs), 21st-century themes, I think, is probably the most important at this point, especially with our demographic. I think there's a lot of times where they see themselves inside of a bubble, and so there's not as much exposure to outside, other global themes. There's not really a definite understanding of their place in the world and how they can impact that moving forward.

Katie's statement reminded me of the importance of sociopolitical consciousness that Ladson-Billings (2006) purported as culturally relevant and "help[s] students use their various skills they learn to better understand and critique their social position and context" (p. 37).

As Katie indicated, after Learning and Innovation Skills (the four Cs), 21st-century Themes (which include Global Awareness, Financial, Economic, and Business/Entrepreneurship literacy, Civic literacy, Health literacy, and Environmental literacy) are what she considers to be most important for students.

Critical thinking gets to the heart of 21st-century learning. Trilling and Fadel (2009) defined critical thinking as the ability to analyze, interpret, evaluate, summarize, and synthesize information. Critical thinking requires a set of higher cognitive processing that promotes students' abilities in problem solving (Alismail & McGuire, 2015). In one of her journal reflections, Katie noted, "Students had to distinguish between relevant and irrelevant information and determine which information best supported their position." In another journal, as she reflected on the lesson and what students were required to do, she wrote,

After listening to their classmates' presentations, students had to compare and contrast the real-world example to the fictional "Rez" in the novel. Students had to determine whether or not the author represented Native Americans reservations accurately and to what extent.

These are rich examples of critical thinking, thinking that forces students to use multiple pieces of information to draw conclusions, make judgments, and reason. The lesson

reflection journals revealed that Katie consistently creates lessons based on learning objectives that push the upper levels of Bloom's Taxonomy. Her written objectives included:

- Students will be able to make inferences based on images and text from the Holocaust and generate questions for further study.
- Students will be able to select the best evidence from the text to support their answer to text dependent questions.
- Students will be able to identify the evolution of characters in the text through identifying and analyzing both direct and indirect characterizations within the novel.

This is important because if the learning objective is not written in a way that pushes the learning to areas that require student to think critically, it will not happen serendipitously or spontaneously. Teachers' stated learning targets should reflect the level of complexity they aspire student thinking to achieve, and this is a result of intentional planning. As much as Katie was doing what the district and I as the building leader rewarded her for doing, she and I both missed an opportunity to elevate these lessons to include connections to other themes and cultures that would have made the Holocaust more relevant to the students in her class. Although educators have made significant strides within the theoretical framework of culturally relevant and responsive teaching (Ladson-Billings, 2006; Paris & Alim, 2014), there still exists a knowing and doing gap that is prevalent in classrooms (Gay, 2015).

As part of the building leadership team, Katie talks of issues of culture and inclusion and has helped shape a focus of staff professional development on cultural competency. However, absent from these learning objectives is evidence of a culturally responsive pedagogy, one that builds an appreciation and understanding of diverse cultures, explores themes of inclusion and equity and how these can be integrated into content, and challenges

existing barriers (Samuels, 2018). I find it often easy for teachers to abandon such paradigms in the minutia of the daily pressures of accountability. As a building leader, the challenge is to ensure culturally responsive practices and thinking are infused and embedded into the culture of our learning community.

The next interpretive code identified through Katie’s interview and journal data was *curricular expectations*. This interpretive code was attached to the theme, **Fidelity to Instruction**. “In the age of increased accountability,” Griffith (2014) wrote, “scripted instructional programs, mandated curricula often profoundly influence teachers’ instructional decisions” (p. 306). As the district worked to prioritize standards for instructional focus, it also created a curriculum hub where teachers could access common content, lessons, and assessments. The district replaced Instructional Coaches with Curriculum Coordinators. In this way, the district would ensure consistency of coverage of prioritized standards. These roles have on numerous occasions created tensions that often force teachers to reconcile doing what they feel is best for students and being a “good teacher” in the eyes of the district by covering content as it is given. In Katie’s interview, she stated the following:

So, I think it’s just kind of a cycle and so it’s never actually establishing those skills and getting to practice them just like you would have to practice multiplication tables or like in my case even sight words. We constantly are just pushing through something instead of having to stop and being more proactive rather than reactive to the situation.

What is the impact of Katie feeling like she is “just pushing through something”? In our building, teachers and I work with the topic of vicarious trauma and self-care as teachers take on the burdens of their students. The gravity of the social and emotional issues that our students face is often overwhelming for them as well as for teachers like Katie. Equally as

stressful for teachers, in my experience, are these dynamics of accountability teachers must grapple with in their daily experiences. Areas of the accountability and standards movement that I think warrant further attention are the pressures of accountability, reconciling this tension and the stress it causes teachers, and the impact on teacher efficacy. I discuss this in greater detail in Chapter 5. Katie picked up this theme, *curricular expectations*, again in her lesson reflection journal, when she wrote, “I would like to incorporate more information, media, and technology skills in class, but our district program is often a hindrance to that.”

The other interpretive code followed by *curricular expectations* was *perceived flexibility*. Hearing the stories of educators and how they work through issues of accountability by finding places to modify and bend curriculum gave me, as an instructional leader, insights about how I can support and help teachers feel a sense of efficacy in their ability to make decisions that benefit students. During her interview, Katie stated the following:

I guess I have the ability to insert things in the curriculum. I think it’s more of those split-second decisions. Or in the midst of some curriculum and I’m like, Hey, I’m going to flip this, and I’m going to do it this way. So we can at least get in some kind of conversation going on. Or some kind of collaboration or something to that effect. But I think as far as our curriculum goes, it’s not intentionally embedded in there. Yes, we may have the option to incorporate small amounts, but I also think if it truly is a priority in our district that it does have to be intentionally implemented with, especially with the, I don’t want to say prescribed curriculum, but I mean prescribed curriculum.

This same sentiment appears in Katie’s reflection journal when she noted, “I changed the sequence of this unit after last year. Students were not ready to explore relevant and irrelevant themes until they first had the background knowledge about the unit topic.” This reflects an alteration to the scope and sequence and one that Katie felt she had the flexibility

to make; however, it does not deviate from the curriculum, and the focus of the unit was maintained.

The other interpretive code to emerge in Katie's data related to the theme **Fidelity to Instruction** was *accountability*. When teachers made reference to being fearful or being reprimanded or the implicit authoritative powers that maintained fidelity, it was given a code of *accountability*. This interpretive theme was only present in Katie's individual interview and the focus group interview data. During her interview, as we discussed the ELA curriculum, she stated:

I think that I'm always a little bit worried that it could be seen as straying from curriculum, not by building administrators necessarily, but from maybe district administrators. I feel like there's some pushback when they're straying too far from curriculum, but it's more important for me to do what's best for my kids rather than be fearful of something, any kind of repercussions.

Katie again picked up this theme during the focus group interview as the group began discussing the theme **Fidelity To Instruction** and accountability. Katie said:

I think with this constant need to hold on to culminating events, such as writing a paper at the end of the unit, that's not a 21st-century skill! There's so many other ways to like show what you know rather than, "Hey, let me write a five-paragraph essay." And in all reality, that's not something in careers that we do on a daily basis, so what are we wanting to prepare them for? Short bursts of writing can be just as effective as writing an entire essay. And a lot of that is really just essay writing to prepare them for high stakes testing. Until there's a shift to represent college and career readiness skills, I don't know that we'll see a shift in ELA curriculum to incorporate more 21st-century skills.

The next theme discovered in Katie's interview and journal data was **Barriers to Implementation**. This theme was supported by the interpretive codes *vast content*, *student barriers*, and *time constraints*. *Student barriers* and *vast content* were strongly present in Katie's interview. Katie's response alludes to the amount of content she is responsible for teaching and her worries of deviating from it. The district employs Curriculum Coordinators

who work to ensure fidelity to curriculum and are the gate keepers of any changes to the curriculum. During Katie's interview, as she discussed the difficulty of implementing more of the 21st Century Skills Framework in her lessons, she acknowledged:

I don't think there's a lot of promotion of critical thinking of teachers. I think it's a lot more, "Hey, this is what I want you to do. This is what I want you to teach. Here's all the things you need to cover." So, sure, you have flexibility, but really, I need to just do what they're telling you to do." So I don't think there's a lot of intentionality when it comes to building in those skills, both for educators in the district and students moving forward.

Several studies (Harris, 2012; Parmigiani, 2011; Penso & Shoham, 2003) cited pressures of accountability existing outside the control of the teacher and considered to be external. External factors, according to Griffith (2014), that influence teachers' decision making include the standards-based movement and adopted and/or mandated curricula. These factors are present in Katie's response about the integration of 21st-century themes in district curriculum.

The final interpretive code addressed in Katie's data was *student barriers*. This interpretive code was attached to the theme **Barriers to Implementation** and addresses teachers' perceptions about student readiness, ability, or development and how these perceptions limit their ability to implement 21st-century skills and knowledge freely into their lessons. During Katie's interview she stated:

A lot of our kids don't come with those basic skills because of the significant trauma they've had or cultural differences in what I think the system quote-unquote, I don't know that I'd like to say that I can't think of something better is set up for that. And so I think a lot of times we do get to the point where we've got the content out, but by the time we model those expectations and those skills, there's not enough time to see them all the way through. So we try it, then we get frustrated and then it's okay, well, we'll try it this next time, but there's no consistency because of the time constraints.

This statement presents several elements related to the study and specifically captured Katie's beliefs about student readiness and ability, which she perceived as limiting the extent to which she can implement 21st-century skills and themes. What is unclear to me from the interview is the degree to which this deficit thinking permeates not just Katie's beliefs, but those of every teacher at Buena Vista Middle and how much the skill and drill paradigm of teaching in the standardized movement contributes to this. Ford (2011), in her work with disparity of non-white students in gifted education, defined deficit thinking as:

grounded in the belief that culturally different students are genetically and culturally inferior to White students. It is a belief that their culture—beliefs, values, language, practices, customs, traditions, and more—are substandard, abnormal, and unacceptable. When deficit thinking exists, educators are unable to focus on the strengths and potential of Hispanic and African American students; they are blinded. (p. 32)

The existence of this interpretive code, *students as barriers*, and the thinking behind it is an area addressed in the recommendations and findings section in Chapter 5.

Case Two: Sarah

Sarah is in her fourth year of teaching and has taught all four at Bella Vista Middle School. She has a Bachelor of Arts in secondary education and certifications in both high school and middle school social studies. Sarah currently teaches eight grade American History and is in her first year as the social studies department chair. She also sits on the building leadership team. Sarah did her student teaching in the high school that is fed by her current middle school assignment. She would tell you she really wanted to be a high school social studies teacher. However, after teaching at the middle level for the past three years, Sarah cannot see herself teaching anywhere else. It is clear that Sarah desires to be more than a classroom educator. Sarah wants to have an impact on her school community in a way

that transcends the four walls of her classroom. Sarah wears her heart on her sleeve and can frequently be seen having heartfelt conversations with her students about their struggles—academic, behavioral, or otherwise. Sarah takes on every extracurricular activity she can because her drive to be there for the students she serves in a multitude of capacities is what fulfills her. I find it not surprising that she aspires to become a school counselor.

As a social studies teacher, the idea of citizen and citizenship and service to others are Sarah's core principles and beliefs. Leadership and responsibility were cornerstones that populated her interview and reflection journals. These are Life and Career skills as listed in the Partnership for 21st Century Skills Framework as depicted in Figure 1 of Chapter 1. The interpretive code, *perceived importance*, connected to the theme **Framework Comprehension**. During her interview, she described what she believes to be the most critical of skills for her students to acquire: "Life and career skills. I think those are adaptive throughout their entire lifespan. I think without those we cannot really build on top of it until those are ready to go." These life and career skills are critically important to student success. Given the published data that show a scarcity of math, science and soft skills as most pronounced for African Americans and Latinx students (Bella Vista Middle School, 2017; Manufacturing Institute, 2016), Sarah is justified in perceiving these skills as most important. As Sarah and I continued the interview, she revisited the part of the framework that resonated most with her. Teachers' beliefs about students and curriculum shape the decisions they make about instruction. For the purpose of this study, it was important for me to uncover these beliefs. As Sarah and I conversed, her *perceived importance* with regard to 21st-century skills was again highlighted. Sarah reflected on how she can be more intentional in incorporating 21st-century life and career skills into her curriculum:

I mean, especially tying back to these life and career skills, if we just take, five, ten minutes out of our lesson before we start what we're doing, and just explaining, as far as initiative and self-direction, like today, how can you keep yourself on task? How can you take control of what your educational career is going to be? I think it would be pretty easy to do.

Perceived importance also had a strong presence throughout Sarah's lesson reflection journals. As I gleaned from her interview, life and career skills is what she believes to be most important for her students to acquire. The following examples of leadership and responsibility are reflected in those journals:

- I looped the conversation around from the bystanders of Salem to how we can be bystanders in modern times and how we can change that and why it's important for them to develop these leadership and responsibility skills.
- I knew I would need volunteers for this activity. I knew I'd have to rely on those who are leaders in my classroom. This activity helps promote leadership and responsibility in our classroom and larger school community.
- Teaching students to be good citizens needed to take a priority. These social and cross-cultural skills needed to take a priority over curriculum.
- Building initiative and self-direction in students by telling them they were responsible for the final completion of their chart and it would be checked only if they asked is important for our students to learn.

During the observation, as Sarah was teaching a lesson on the causes of the American Revolution, it was interesting as a former social studies teacher myself, to reflect on the language she used to teach this section of history and just how much was connected to the idea of citizenship and responsibility. "Why was it important for citizens to understand the political issue of the day?" "What role do our citizens play in holding the government accountable?" she asked. This is timely as the country moves forward with an impeachment inquiry of Donald J. Trump. These are the questions she visited with her class. As one student put his head down as they were analyzing Franklin's 1754 political cartoon, *Live or*

Die, she again circled back to this idea of citizenship and responsibility. “Tyrell!! LIVE OR DIE!” she exclaimed. “C’mon man, it’s your responsibility to understand your job as a citizen and these colonists won’t rally on their own!” Lifting his head with a smirk, Tyrell rejoined the discussion of the revolution. Her consistent references to civic literacy and responsibility gave me insight into what she values as an educator; these values and beliefs drive Sarah’s decisions about instruction.

I paused to think about this content, U.S. history and the theme of citizen and citizenship, and how this gets digested by students through the lens of the dominant culture. How do I get teachers to constantly evaluate everything they do through the framework of equity and inclusion? What is the student’s role or civic duty with regard to the themes of justice, equity, and racism? Clearly the role of Sarah, as a humanities teacher, is to make sure students understand perspectives and tensions of influence and question sources of authority and power. But does Sarah internalize these concepts and their connections to practice and content? Samuels (2018) explained, “teachers must have the opportunity to understand their evolving identities and how they influence (in)action, counter or perpetuate biases or deficit paradigms, and expose or ignore injustices” (p. 22). When Sarah and I fail to recognize the absence of culturally responsive framework present in learning objectives, content, and instruction, we are, by our “inaction,” perpetuating biases and deficit paradigms. This is a challenge to educational leaders who get rewarded for idly going along with the stream of consciousness that pushes accountability, pacing guides, data driven curriculum, and assessments, without questioning the status quo or critical reflection.

Implementation frequency was the next interpretive code identified in Sarah’s journals. Each of the skills and themes listed in the P21 framework, such as global

awareness, information and media literacy, leadership and responsibility, and critical thinking and collaboration, served to inform this interpretive code. This interpretive code was not attached to a case unless there were two or more of the framework skills and themes present in three or more of the lesson reflection journals. Sarah identified critical thinking in three of the five lessons with a moderate to strong presence. In her journals, she wrote the following: “Today, this was their final comparison using all three regions in that analysis. This time they were forced to take a side and defend it.”

Critical thinking is a building focus this year at Bella Vista Middle School. All teachers adopted the state indicator of critical thinking and incorporated it into their professional growth plans, including what data they would collect to measure their growth in this indicator. Assessment of this indicator needs to be considered in any discussion of critical thinking, as the presence of this mandate would be reflected in *implementation frequency*. This interpretive code did not seek to determine or uncover the reason behind implementation of certain traits or skills; I coded the frequency of *implementation frequency* present in interviews, journals, and observations. Certainly, the building mandate had an impact on the rate at which critical thinking was identified. In another journal, Sarah recorded, “Students were required to use their created chart to compare and contrast two out of the three regions in the colonies and how characteristics of each was reflected in its established industry.” Recognizing similarities and differences and drawing contrasts between two seemingly unrelated objects or data points begins to push students to higher levels of thinking and understanding. As a new teacher, Sarah was obviously beginning to develop an instructional prowess that can bend curriculum and instruction toward student

learning. She gets more excited to be in the classroom with every successful year she completes.

Communication was present in three of five lessons with a moderate presence in each.

From Sarah's reflection journal, I could tell how she addresses this skill in her lessons:

Students adopted roles of the various influencers and factions during the French and Indian War and dialoged and argued with those opposing their views depending on the card they chose. Students then reflected on how their opinions of those individuals changed after their coffee house conversations.

Communication related to the theme of **Framework Comprehension** was further reflected in Sarah's lesson journals as she wrote, "I needed to make sure students have the opportunity to express their thoughts, feelings, and questions regarding slavery in a safe and non-judgmental environment." Hess (2009) argued in her book, *Controversy in the Classroom, The Democratic Power of Discussion*, that planned and intentional discussions about controversial issues teach fundamental skills that promote a healthy democracy. Sarah values community and citizenship, and even as a novice teacher, she is finding ways to weave these skills and themes into her curriculum. As a building leader, especially at the middle level, I am not convinced we do not have this backwards. Perhaps, rather than asking, how can we more intentionally weave 21st-century skills into your content, we should be asking, how can we more intentionally weave content in 21st-century skills? During the lesson previously referenced, I was pleased with Sarah's intention regarding teaching the issue of slavery. Sarah took into account the content, her students' developmental readiness, and their understanding or limited understanding of the topic. Teaching lessons that require critical thinking is crucial for students. "Without controversial issues, critical thinking is nonexistent or; at best, weak" (Noddings, 2006, p. 1).

The other area that populated four of the five lessons in Sarah's journal data was life and career skills, which she reported as having a moderate presence in each of those lessons. Several of the 21st-century framework themes were present in her lesson journals' data and were attached to this interpretive code. These included initiative and self-direction, productivity and accountability, leadership and responsibility, and social and cross-cultural skills, with leadership and responsibility being the most prevalent and appearing in three of the five lessons. In one of her journals she wrote, "social and cross cultural skills; teaching kids to be good citizens takes top priority against curriculum."

Framework familiarity is the other interpretive code attached to the theme **Framework Comprehension**. These three interpretive codes, *framework familiarity*, *implementation frequency*, and *perceived importance*, all work in unison to create an understanding of Sarah's level of comprehension with the 21st Century Skills Framework. During the interview, participants were asked to reflect on how the Partnership for the 21st Century Skills Framework was similar or different to their understanding of 21st-century skills and knowledge. Sarah replied:

You know, honestly I didn't ever see, I don't remember seeing anything similar to this in college. So, this was something very new to me and I really enjoyed it. I think if we could overlap this with what our district curriculum has right now, definitely, but it's very different from what I've traditionally been used to when seeing curriculum frameworks.

As a novice teacher, Sarah would not be expected to have the same level of insight about pedagogy or 21st-century themes as her more veteran colleagues. I was curious about her understanding or beliefs about 21st-century skills prior to participating in this study.

Although I saw evidence that Sarah valued civic literacy and life and career skills and frequently considered integrating collaboration and communication into her curriculum, she

still reported that the framework was new to her. Sarah's response highlighted concerns about teacher preparation programs and what theoretical and practical knowledge pre-service teachers should be exposed to in their coursework. This also made me reflect on my role as an instructional leader in helping teachers new to Bella Vista understand their instructional obligations.

If there was an initial finding from the data, it was that teachers reported being much more intentional integrating learning and innovation skills, or the four Cs, into their lessons than I had previously thought. Specifically, teachers worked to tie in critical thinking, collaboration, and with less frequency but still present, communication. Glaringly absent from the four Cs, however, was creativity. In four of five of Sarah's reflection journals, she reflected that creativity was the weakest of the Learning and Innovation skills throughout her lessons. Sarah wrote the following in her journals: "Creativity was not present, not listed or ranked; not much opportunity to create during this lesson." In another journal she stated, "Creativity was not present in this lesson. The various traits were already given and students only had to sort them." And in another she reflected, "Creativity was not present. I wasn't sure how to really turn this activity into something that forced them to be creative." Teachers do not yet know how to teach self-direction and creativity and innovation the way we know how to teach multiplication (Rotherham & Willingham, 2009). This is problematic and is discussed in Chapter 5 as one of the challenges of instructional leadership.

To prepare our students for a globally competitive work environment and higher-education coursework, schools must align classroom learning experiences and core subjects with 21st-century skills. By integrating skills and content, educators can ensure students have requisite tools for success in today's globalized world (Cookson, 2009). Most teachers

do not need to be persuaded that 21st-century learning is a good idea—they already believe that. Teachers need much more training and support in how to teach these skills. This training also needs to include lesson plans that deal with high cognitive demands and the potential classroom management issues that come along with using student-centered approaches to teaching and learning (Rotherham & Willingham, 2009). As the building leader, this is not something I've done with Sarah or any other teacher new to Bella Vista Middle. Given the hyper-scripted and standardized paradigm that exists in the district, I do not feel I have the autonomy or power to establish any framework other than what has been previously established by the district. My instructional leadership in this context is more synonymous with compliance and fidelity.

The 21st Century Skills Framework needs to be more intentionally addressed systematically by districts and states so it is not left to chance or serendipity. After my 13 years as a building leader, I have come to the conclusion that on their own, as much as I believe in the power of the teacher to effect change, without broader support, teachers cannot implement 21st-century skills in ways that ensure consistent and meaningful coverage. This is further explored in the recommendations section of Chapter 5.

Another theme to emerge in Sarah's data was **Pre-Active Stage Inputs**. The interpretive codes attached to this theme were *student inputs*, *content inputs*, and *instructional inputs*. The interpretive codes *content inputs* and *student inputs* were identified in Sarah's interview. Again, inputs are anything determined for consideration on the part of the teacher during the pre-active phase of teaching. Reflecting both *student* and *content* inputs in her interview, Sarah stated:

I use our district-based curriculum as a guide and then I try to work on what I know that they need and big life skills. So, I just think outside the box of what our kids actually need, whether that be learning about technology and how to use it or how to be productive and accountable, whether that be using their planners or anything like that.

Kohler et al. (2008) found that teachers' decisions are "influenced by ongoing classroom context, as well as a teacher's experiences, values, and knowledge of content, pedagogy, and individual students" (p. 2108). I listened closely to hear Sarah's understanding of the curriculum and what it does and does not cover, her perceptions about student needs, and how she accounts for those in instruction.

I think about what else I can add into my lessons. It's just difficult to adapt some of these to what is outlined by our curriculum currently, but that's not to say that if we took a little bit extra time and work these would probably adapt pretty well into what we're doing.

What is on display in the statement above supports Kohler et al.'s (2008) findings. As the participant in the study with the least amount of experience, she articulated that integration of anything outside of mandated curriculum is not easy for her to connect to what she is currently given to teach. Her statement also demonstrated that she is intentionally reviewing her content as she is planning and searching for places to insert "more." As stated earlier, the teaching of 21st-century skills and knowledge cannot be left to random insertions solely based on the good intentions and intuitions of good teachers. Rotherham and Willingham (2009) argued, "Curriculum, teacher expertise, and assessments have all been weak links in the past education reform efforts" (p. 18). Supporting the teaching of 21st-century skills and knowledge in systematic and intentional ways needs to be addressed at the district and state levels.

The final theme to emerge in Sarah's data was **Fidelity to Curriculum**. The interpretive code *curricular expectations* emerged in Sarah's interview and journal data. As a new teacher, Sarah has been expected to attend curriculum summits, student behavior management training, new teacher professional development, and trainings related to Actively Learn, a software that levels reading texts for students. She meets with her district curriculum coordinator as a department every quarter. After three years in the district, she has a feel for the level of accountability as well as the instructional framework that accompanies it. *Curricular expectations*, even for a social studies teacher, which is not tested in the state assessments, is captured in Sarah's interview data. She stated:

I think this plays hand in hand (referring to expectations to cover content and trying to implement 21st-century skills) into one another with the fidelity to curriculum our district mandates of us. Once you've used so much time scaffolding these things then, you're a week off and you're on a vicious cycle at that point and getting it all covered becomes impossible.

As a former high school social studies teacher, I remember the stress of the drive of "getting through" content. Social studies are taught in a linear, chronological manner. Wars seem to be the measuring stick of successful content coverage. Getting through WWII and Vietnam was the goal in those days. Looking back on it, how much more relevant would the class have been for students to focus on post-WWII America and the dynamics that would lead to Gulf Wars I and II? Sarah is always eager to dialogue about social studies and its relevance to students' lives. I can think of more than one philosophical conversation about what social studies needs to be versus its current structure.

The final interpretive code to surface in Sarah's data attached to the theme of **Fidelity to Instruction** was *accountability*. The theme was used to group issues of power and compliance and even teachers' fears of being reprimanded should they fail to comply

with district-regulated curriculum. The pressures of *accountability* are very real and pervasive among teachers. Even as a new teacher and a core teacher from a non-tested content area, Sarah has felt the demands of these pressures. During the focus group interview, as the conversation turned to the theme of **Fidelity to Curriculum** and integration of 21st-century skills, Sarah stated the following:

I think this plays back into, that's something that a lot of us feel on a building level and not so much on a district level or statewide or national level. It's more something that we feel comfortable in this building being able to do. We're not going to be chastised for taking a moment out to teach them an extra concept that might be outside of our curriculum or coordinating it with our curriculum. I think it's a lot easier here which is why we feel conflicted with certain district people.

In one of Sarah's journals she recorded simply, "the inflexibility of district curriculum prevents us from addressing more of these types of skills in our lessons." Although this comment speaks to fidelity and curricular expectations, it was given the interpretive code of *vast content* and was attached to the theme **Barriers to Implementation**. Although this theme was not a strong enough presence in Sarah's data to include it in her case, it is consistent with interpretive themes that populated other cases.

Case Three: Penelope

Penelope is a veteran teacher who has taught for the past 23 years, with 17 of those years at Bella Vista Middle School. Penelope is quiet and unassuming and smiles often from behind her glasses. Her soft and nurturing demeanor is always visible and knowing the difficulties and challenges present in the building, people may be persuaded to think she is not resilient and tenacious as a teacher. To make it 23 years in public education with 17 of those being in a very challenging environment, clearly she is both flexible and rigid when and where needed. Penelope began teaching 23 years ago in a school for boys as a reading

specialist. After three years, she moved to an area elementary school and taught fifth grade for three more years before finally arriving at Bella Vista Middle. “In those days, [they] wouldn’t hire you right out of school,” Penelope stated, referring to the district that now employs her. “I needed to get some experience before they thought I was good enough,” she says, laughing. Penelope finds this comical given that Bella Vista Middle School has had a significant staff turnover in the past five years and hires many teachers straight from college.

Given Penelope’s background and sense of responsibility, it is no surprise that the strongest interpretive code to emerge from her interview and journal reflection data was *student inputs*. This interpretive codes was attached to the theme, **Pre-Active Stage Inputs**. As a reading specialist in the district, Penelope is always evaluating her students against curriculum content. In her interview, she stated:

Well, I use the resources that come with the curriculum. And from there, I use different organizers I have sentence stems or things to help me maybe tweak it a little bit. I look at what they’ve done in past and their background knowledge. So like if we’re writing an essay, I’ll look at their writing samples and go, “Okay, well they already know how to write introductions, so I’m not going to worry about teaching that.” Or just review briefly and then go on. Last year they didn’t know how to put a capital letter at the beginning of a sentence and we went way back. And we do that. So we just use work samples to kind of go from there.

As she is planning for instruction, she is holding these two pieces of information, students and content, simultaneously and thinking about how one impacts the other and makes adjustments as necessary. “I didn’t need to give them a pre-assessment as to what to go back and teach, I knew it the first week,” she asserted in her interview. Vanlommel et al. (2017) found in their study on teacher decision making that:

Despite the efforts that are made to enhance and support data use in schools, teachers’ data use is still limited. Although research points out that decisions based on data better correspond with pupils’ needs, teachers are still convinced of the contrary. Teachers believe that their intuition, based on experience and personal

connection with pupils, leads to better knowledge of pupils' competence and special needs. (p. 81)

Penelope is an experienced teacher and draws on that experience to make decisions about content and students, and, as Vanlommel et al. (2017) highlighted, intuition is an important factor as it relates to students and the content she chooses to deliver to them. She uses this experiences in determining *student inputs*, as expressed in interview data:

I do. I feel like I have a lot of freedom to do that (going back to teach missed skills). I don't know that everyone feels that way, but I feel the freedom to veer off course, if I think it's necessary. As a leader in the department, I try to not be contradictory to what we're being told from above, but personally in my own space, I will, yes.

Thinking about her students' needs, both academically and developmentally, is unmistakably important to Penelope as a teacher. Her level of understanding about what the needs of her students are, as well as how those can or cannot be effectively addressed in the curriculum, is clearly represented in her previous statements. Her comfort level with altering pace, curriculum, and instruction to address those needs, nevertheless, is not shared by all teachers in her department or building. I wondered if future research questions about adaptability of curriculum and student growth on learning targets is increased or decreased with deviation from scripted curriculum.

Student inputs continued to be a strong interpretive code throughout Penelope's lesson reflection journals. In one journal log as she reflected on integrating 21st-century skills into instruction, she wrote, "I believe that this basic level of instruction could be groundwork for more 21st-century learning, but at the onset, I need to backload prior knowledge and basic skills." This gave me insight into her thinking about inputs she considered during the pre-active stage of teaching and how her students' readiness levels impacted those instructional decisions. Penelope has long-held beliefs about instruction and

what students need. The previous quote related the “need to backload prior knowledge and basic skills” from her journal and interview quote, “going back to teach missed skills” were also linked to the interpretive code, *students as barriers*, which was attached to the theme **Barriers to Implementation**.

The next interpretive code to emerge connected to **Pre-Active Stage Inputs** was *content as inputs*. This interpretive code speaks to references that teachers made in their data that relate to their thinking, considerations, or accounting for content as they are planning for instruction. As I referenced in Chapter 2, content, especially in a standardized system, is a priority for teachers to consider in the pre-active stage of teaching. The push to improve test scores has led to increased interest in using data on the part of schools and districts to drive decisions and effect change (Salvin et al., 2013). Given these pressures, getting through the curriculum then becomes the goal. The prevalence of this theme is consistent with the research. During her interview, as we began discussing planning and preparation for instruction, Penelope stated, “We have a pacing guide on the district curriculum hub that is really our guide—you ALWAYS start by referencing the pacing guide.”

During her observation, I observed Penelope presenting vocabulary words through direct instruction to students. This looked like a list of words on the smart board and students read short passages that contained each word and then used it to construct their own sentences. As a reading specialist, Penelope is fully aware of the importance that vocabulary recognition and familiarity plays in reading comprehension. During her interview, she reflected on this lesson and its presentation. “I don’t like delivering vocabulary like this. There’s a difference between teaching it and covering it, and I always have to think about what I need to cover from week to week and plan accordingly.”

A pattern that was consistent in teachers' voices was characterized by the tension they felt between covering the prescribed content and doing what they felt was in the best interest of students. Penelope's face completely changed when I asked her to reflect on the vocabulary activity during our interview. I could see her disappointment. This is the curriculum she is given, and this is how it is prescribed for them to cover. Given the pressures of accountability, Penelope knew that when and where she takes liberties she needs to be calculated and limited, and this was not an area in which she was willing to compromise fidelity to curriculum. "It's just easier to cover it and move on to other things sometimes, you know?"

Penelope's interview reminded me of the research literature about the effects of accountability and standardization on instruction, deskilling of teachers, and practices that foster skill deficits and "kill and drill." Integrating culturally relevant pedagogy, which has been largely ignored due to an increased focus on high-stakes testing and standardized curricula (Sleeter, 2012), would ensure that "students were engaged in more discourse tied to their backgrounds, experiences, and interests" (Johnson et al., 2016, p. 494). As it was, the disappointment that Penelope expressed was the realization that she knew the way she was teaching vocabulary did not engage or excite students. The lackluster response of students to the teaching was present in the classroom as the lesson grew stagnant from feelings of contrived compliance and the expediency of completion. Teachers and students alike, even if they did not recognize it in the moment, were feeling the pressures of accountability, and in the name of **Fidelity to Curriculum**, both were suffering. Erichsen and Reynolds (2018) noted, "Accountability pressure partly undermines goals of improving performance and equity in public schools by sowing seeds of teacher dissatisfaction and

contributing to teacher turnover, thus thwarting student achievement in struggling schools” (p. 1).

Curricular expectations were the next interpretive code to emerge in Penelope’s interview and journal data attached to the theme **Fidelity to Curriculum**. *Perceived flexibility* and *accountability* were the other interpretive codes attached to this theme. The standardization movement has helped to ensure fidelity to curriculum and provide symmetry to curriculums. Ensuring the same learning intentions are consistent across similar content areas is a positive outcome of this movement. Yet, the standardization movement has given teachers a narrower focus by very specifically, systematically, and methodically prescribing to them what specific learning intentions are to be taught. Clearly, the standards-based movement heavily influences teachers’ decision making (Ogawa, Sandhooltz, Martinez-Flores, & Scribner, 2003; Swanson & Stevenson, 2002).

As a veteran teacher, Penelope has strong beliefs about not only the students she teaches, but the content she uses to teach them. Over the past 17 years at Bella Vista Middle, Penelope has had a front row seat to this standardization movement. Scripted curricula, pacing guides, and instructional parity are the norms in her world. I could hear the tensions of this fidelity in her interview as she discussed why she does not incorporate more 21st-century skills and themes in her lessons.

There’s a whole lot that I need to teach, and so it just is a lot to teach. To fit it in, it’s a squeeze sometimes. But I try to add in critical writing and even speaking about those things, and critical reading, and so I’m trying to fit it in, but there’s a lot to teach.

Penelope feels the pressures of *accountability* and clearly weighs all the content she is responsible for as she is planning for instruction. Penelope is married to her pacing guide,

and this district document determines what gets covered and when. David (2008) found that pacing guides actually deter teachers from utilizing more effective instructional strategies. Pacing guides push “[teachers to] rely on teacher-centered lessons that seem more efficient and predictable than student-centered lessons. Engaging students in more time consuming and cognitively demanding activities that nurture understanding tends to fall by the wayside” (p. 87). This study was not designed to study the efficacy of teachers due to the tensions of curricular demands versus student needs and how teachers reconcile such tensions. This phenomenon was a discrepant finding. Nevertheless, *accountability* diminishes teacher satisfaction and decreases teacher retention and is more prevalent in schools that serve lower income populations and students of color (Erichsen & Reynolds, 2018). As I stated previously, this conflict that teachers feel is unmistakable and is explored further in Chapter 5.

Penelope asked herself the question, “So how well does the district curriculum integrate 21st-century themes?” This rhetorical question was followed by the discussion below:

How well does the district do it? The district puts the idea out there to do it, I think. And we’re taught about it, but there’s also so much to teach. It’s just a lot. When we look at the assessments, the common assessments we put out, they do have higher level questions and complex questions, and so on the assessment. But I don’t know that before the assessment, we can get there with what they have.

Tests and common assessments is the world in which Penelope lives, and unyielding pressure to “improve test scores” is a relentless message that permeates all aspects of students’ and teachers’ work lives. The pressures of accountability perpetuate fidelity to curriculum. According to Griffith, Massey, and Atkinson (2013), “novice teachers typically embrac[e] the standards and the associated pacing guides, whereas experienced teachers

identify the movement as frustrating due to the loss of their professional freedom” (p. 307).

Although Penelope is a veteran teacher and very much wants to be seen as such, being a team player and doing what is expected of her, including following the district curriculum, was important to her, as reflected in the following statement from her interview:

I do. I feel like I have a lot of freedom to do that (alter curriculum to introduce 21st-century skills or themes as needed by students). I don't know that everyone feels that way, but I feel the freedom to veer off course, if I think it's necessary. As a leader in the department, I try to not be contradictory to what we're being told from above, but personally in my own space, I will, yes.

Although Penelope did not report that she is frustrated, the theme of **Fidelity to Curriculum** was clear, but it was also clear that she was comfortable taking liberties with curriculum contingent on the needs of her students in her own space.

The next interpretive code that emerged in Penelope's data was *perceived flexibility*.

During Penelope's interview, she described how she used her expertise to balance the teaching of learning and innovation skills with “covering” the standardized curriculum:

I think I layer it a lot, so I get in the basic writing assignment or whenever but squeeze in some talking in the middle of it. And so we add in conversations, collaboration things and squeeze it in, layer on top. We still do writing, but we squeeze in the talking that are good in lots of ways.

Communication and collaboration are learning and innovation skills from the 21st-century framework, and Penelope was more than justified to “squeeze” them into her instruction.

This statement provided insight into Penelope's thinking related to the flexibility or inflexibility of her curriculum. Clearly if these skills were intentionally integrated into the curriculum, Penelope would not have to work to find places to “squeeze” them in. During the focus group interview, she revisited her sentiments with regard to **Fidelity to Curriculum**.

I was thinking a lot about the fidelity to the curriculum after we met last time. Just thinking about . . . Because you make choices all the time about what part of the curriculum you do and which parts you go over because there's too much and so what decisions should I be making based on what I need to cover.

Again, it was difficult to escape this dynamic that teachers continually referenced. I could not help but think about the stress of the powers of accountability on teachers and how this affects teacher burnout.

Fidelity to Curriculum also connected to theme, **Barriers to Implementation** as a thematic code in Penelope's data, but I chose to identify *vast content as this sub-theme* of barriers theme to avoid confusion of its duality. *Curricular expectations* are references that teachers made in their data to the content and expectations for coverage. The interpretive code *vast curriculum* is related to the idea of fidelity to curriculum; however, as it is connected to **Barriers to Implementation**, it refers to the literal amount of content (*vast content*) that teaches are expected to cover. In Penelope's reflection journals she recorded, "The amount of curriculum that needs to be covered prohibits branching off to more 21st-century skill work." I could hear the same pattern in her interview:

There's a whole lot that I need to teach, and so it just is a lot to teach. To fit it in, it's a squeeze in sometimes. But I try to add in critical writing and even speaking about those things, and critical reading, and so I'm trying to fit it in, but there's a lot to teach.

In another journal she wrote, "Time is a factor in creating lessons utilizing new technology. Given all I'm required to teach, including four different classes, this restricts the time I have available to find new technology they could use."

The next interpretive code that emerged through Penelope's data was *students as barriers*. This code represented sentiments and beliefs about students' abilities and how teachers' perceptions about students created a barrier to implementing 21st-century skills

and themes into curriculum. For example, in one of Penelope's reflection entries she noted, "I believe that this is basic level of instruction and could be groundwork for more 21st-century learning." Implicit in this statement is the belief that because student readiness level is basic, instruction should be basic and that does not then allow much room for 21st-century skills. During the focus group interview, Penelope again visits the theme *student as barriers*:

Sometimes the kids don't come with the confidence to do some of the 21st-century activities we'd have for them. And so it takes longer to prepare them, so to scaffold lessons, to make them ready to do more advanced thinking activities, outside the box things. It's just time. You can't just walk in and do a high-level activity yet that we could eventually do with eighth graders.

During the interview when I discussed with Penelope the observation notes and feedback, I asked if she thought she could have integrated independent groups into the activity and if that could have been a place to merge some of the 21st-century skills and themes. Penelope responded, "I usually spend first semester getting students into routines and understanding expectations before I integrate them into groups, they're just not ready to be that independent." Although sixth grade students in the district are very used to these types of groups as it is a fifth grade instructional framework for elementary students, Penelope viewed student social development as a *barrier to implementation*.

Penelope's persistent concern about her student's academic and social readiness unconsciously created a false narrative that perpetuated deficit thinking and is counterintuitive to student progress. Well intended teachers such as Penelope will tell you that they are differentiating instruction based on students' readiness or building background knowledge. These things are both necessary and critical; however, when this is coupled with the reasoning to justify not including elements of 21st-century skills, it becomes deficit thinking. Teachers, including Penelope, need the space to reflect on their biases that create

such thinking. Educators often adopt and employ a pervasive deficit paradigm and blame students or their families for perceived gaps in learning or lower achievement (Darling-Hammond, 2010; Ladson-Billings, 2000).

What a teacher believes about their students' ability and capacity to achieve is the greatest determinant of success for students. Teachers often lament about factors beyond their control that include class size, parental support, and socio-economic status. All of these have an effect size on student learning that is far less than the power of collective teacher beliefs. Hattie contended, "Teachers' beliefs and commitment are the greatest influence on student achievement over which we have control" (p. 22). Penelope clearly values the content and her students and stated that she feels she can intervene in the curriculum and insert her expertise when she feels it is warranted by students. These are both factors she holds as she is planning for instruction.

Case Four: Hazel

The unmistakable smell of formaldehyde and preserved animal organs was more than pungent as I walked into Hazel's sixth grade science classroom. A few students glanced up at me, lifting their eyes away from their papers only briefly, as I walked by. Rectangular science tables were pushed back to back to make square pods that sat three to four students at each. In the middle of the table sat a purplish, greyish, violet mass. Shiny silver tools carefully placed on a brown paper towels were flanked by clear safety goggles and blue rubber gloves next to them. The room was quiet. Kids, defying every urge in them to touch, poke, prod, and possibly even taste said object, were writing with vigor, frantically pouring their thoughts on paper as quickly as they could. Hazel is in her seventh year of teaching and has done this lab a few times. She can predict everything that will happen today. She walks

around the pods quietly, slowly, looking over her students' shoulders. Kids continue to write. The room is eerily quiet. The hamster in the back of the room breaks the silence from her cage. As she runs on her wheel, not a student moves or responds. The student I was sitting across from lifts his eyes to me and fights back a smirk before giving way to a full smile. Predicting the hamster wheel has broken the stream of consciousness from brain to paper, "Claim. Evidence. Reasoning!" Hazel, says to the class. "What will the heart feel like? What will you find? What questions do you have? Where can you find your evidence? How will you find it? What is your reasoning? How will you support your claim?"

Claim, evidence, reasoning or CER, is heavy in the new science standards, and Hazel has eagerly adopted its implementation into her classroom. The first interpretive code to emerge in Hazel's data was *implementation frequency*, followed by *perceived importance*. These interpretive codes are attached to the theme **21st-century Framework Comprehension**. As a science teacher, Hazel's content lends itself to several of the strands in the P21 framework, and this focus came through in her data. Present in the observation described above was the skill of critical thinking. This was an unmistakable strand that ran through the lesson I observed. CER is the process of critical thinking, and it appears multiple times in her data points. The existence of this in her observation data gives the other data points validity and cross-references her perceptions and reflections with the reality of practice. In this way, the observation data added another layer to help give insight into the phenomena related to **21st-century Framework Comprehension**.

Critical thinking had a strong presence in all five of the lessons in Hazel's reflection journals. Critical thinking is both a recurring skill that makes its way into her lessons and it

is also clear that she values this skill more than the other skills and themes in the P21 framework. In her journals, she reflected the following:

I felt that critical thinking was strong in this lesson. This activity was designed to have students problem solve in collaborative groups to figure out which strategies work best and be team players. Students were required to solve puzzles, use process of elimination and trial and error.

Critical thinking is tangible and measurable and of all the learning and innovations skills, it had the strongest presence of any of the 21st-century skills and themes in Hazel's data sources.

I noticed that Hazel intentionally planned for small groups to "problem solve" by trial and error and process of elimination. Not only does problem solving create contrived disequilibrium, which builds academic grit and resiliency, it promotes critical thinking. Knowlton (2003) mentioned that using problem solving through instruction with students can promote critical thinking skills that help them overcome challenges they may face in their post-secondary lives.

Two more of Hazel's journal entries speak to her intentions about critical thinking and gave me an understanding of her pre-active stage processing. Critical thinking is not a spontaneous endeavor, although master teachers will make it appear so. Clearly Hazel tended to focus on critical thinking as it is a natural component in her science curriculum.

Students had to work through a challenging virtual lab by following multi-step directions and a lot of trial and error. If the experiment was not working, they needed to determine why, make connections and try again. They also worked through the scientific process by predicting, analyzing data from multiple trials and framing conclusions.

Students were engaged in the scientific process and collecting data about their own circulatory system, many students know from previous experience that their heart beats faster if they are more physical and we focus on the why and how systems interact during the process.

Cookson (2009) declared, “Thinking empirically is a form of social responsibility. The methods of science offer us a way of thinking that is a strong framework for a healthy and viable approach to problem solving and living together peacefully” (p. 12). He heightened the importance of critical reflection, empirical reasoning, collective intelligence, and metacognition in the lives of 21st-century citizens. Hazel seemed to understand how her content perpetuates these skills and intentionally incorporates critical thinking frequently in her lessons. During her interview she expressed the following about critical thinking:

I always want to try to get them, like in science, analyzing data as much as possible, or pulling data from multiple sources, and making conclusions. We work a lot with that claim evidence reasoning model, so anytime I can get them in front of data, or in front of some sort of text, where they have to pull information out of it in some way and create a product or use that to inform something else that we’re doing, I try to do that as often as possible.

Of all the participants in the study, Hazel is the only one who felt her curriculum effectively addressed and integrated 21st-century skills and knowledge. During her interview, she stated:

I think the science curriculum does a good job integrating those skills. Our new textbooks and new resources that we have are designed around the national next generation standards and it all focuses on these skills. So just working through those and implementing them in a new way, following the new standards, has been the challenge but the curriculum itself does a really good job of implementing those.

As the instructional leader, I disagreed with Hazel’s assessment about her curriculum.

Absent from any of the lessons, pacing guides, or centralized curriculum that I could observe were issues of global awareness, civic literacy, health literacy, life and career skills, and creativity. Does science lend itself to critical and analytical thinking? Yes, it absolutely does. However, does this curriculum and those that hold it have an obligation to show how science intersects with all of the themes in the 21st Century Skills Framework? Yes! As an

educator I know that providing students with different skill sets is essential in order to prepare them for facing a globalized world. Ellis (2004) stated, “The knowledge-centered curriculum is an academic curriculum where students are expected to acquire knowledge of their world as a foundation for adult life” (p. 147). Acquiring a knowledge of their worlds requires teachers to have a broader understanding of how various disciplines fit into students’ context of their worlds. At the secondary level, teachers are content specialists, and as a result, they teach students in isolated and balkanized paradigms. Relevance to other disciplines and even students’ own lives is not a reality for much of the content educators push at students. This is a challenge for educators and educational leaders.

Although critical thinking had a strong presence in Hazel’s data, I could not help but connect back to Nel Noddings’ (2006) work on critical lessons. She explained:

Students are encouraged now and then to exercise a bit of critical thinking in science or mathematics as they try to solve world problems or think of alternative hypotheses, but such exercises are usually constrained tightly by the topic at hand and the limited knowledge of young students. Further, this sort of critical thinking does not challenge deeply held beliefs or ways of life. (p. 1)

Noddings’ words here raise the bar of what educators need to define as critical thinking. Critical thinking is more than solving puzzles or trial and error; it also needs to challenge deeply held beliefs or ways of life. Although this content, according to Hazel, effectively addresses 21st-century skills and knowledge, which is heavy in critical thinking, is it constrained and constricted in ways that create barriers to true critical reflection and empirical reasoning? Absent from the narrative created through Hazel’s data about critical thinking was any mention about this notion of critical thinking as a vehicle to help students challenge deeply held beliefs or ways of life. Trefil and Trefil (2009) asserted,

The kinds of issues we can expect future citizens to face will not just be about science. Instead, they will be issues in which science is woven seamlessly into a rich tapestry that includes ethical, political, social, economic, and moral ideas. (p. 31)

Getting students to critically examine and grapple with political, social, ethical, and moral ideas and allowing students the space and opportunity to challenge conventional beliefs is also culturally responsive pedagogy and the science all students need.

The next interpretive code revealed in Hazel's data was *students as inputs*. This interpretive code is attached to the theme **Pre-Active Stage Inputs**. Duschl and Wright's (2009) case study, comprised of high school teachers' decision making models for planning and teaching science, focused on the selection, implementation, and development of instructional tasks occurring in the pre-active stage of instructional delivery, concluded that teachers' decisions are dominated by considerations for student development, curriculum guide objectives, and pressures of accountability. During Hazel's interview, she stated:

I think collaboration and critical thinking are really important. I think kids need to be able to work together and work with people necessarily they don't like. That's a struggle for a lot of them in learning how to communicate with each other towards a common goal. I also think critical thinking is important because that's a skill, a lot of different skills, that they're going to need to be successful, analyzing problems, problem-solving, and all sorts of things they would need to do in their adult life.

One of the things I know from our bi-annual student survey given to all students at Bella Vista Middle School is that less than 30% of students feel they can effectively resolve conflict with one another. Additionally, less than 30% of students feel they treat one another with respect. Our student data are telling us that students do not interact effectively.

Collaboration has a positive impact on student abilities such as increasing their motivation and performance as well as promoting and developing social positive social interactions (Alismail & McGuire, 2015). Hazel, as are all teachers, was aware of our student data and

intentionally integrating collaboration into her lesson to account for students' deficiencies in this area, which is an example of *students as inputs*.

I gleaned further insight into Hazel's thinking from statements she made in her lesson reflection journals as she planned for instruction and took note of how her students' needs impact curricular decisions. Successful middle level educators understand the developmental needs of middle school students and account for those during instruction. Student needs and her thinking about those needs as she is planning for instruction are reflected in the lesson reflection journals:

Students by nature are social. They need to be able to communicate with each other not just about the documents, but because they need to talk. They need to answer questions and figure out what information could be used for the project as well.

I intentionally planned for groups and partners so students could build their social skills and learn to communicate in an academic way. They need to be social and this helps them develop that ability. The stations were timed so students had to hold themselves accountable for being on task.

Again, these statements reflect a thinking about students, where they are, and what they need. Sixth grade students in the site of study are entering a new educational reality in middle school. The need for these students to self-monitor and self-regulate in ways they have not yet had to encounter in their elementary school days is a reality. Hazel's comments about the stations being timed so students have to hold themselves accountable are a reflection of her understanding of their developmental needs and her accounting for them in instruction.

During Hazel's interview, as we discussed 21st-century skills and themes, Hazel kept going back to the idea of relevance.

I'm always looking for ways to connect whatever we're supposed to teach with something that's going to be relevant for them. Whether it's were studying geography or body systems, finding relevance to these topics is the challenge.

In response to the follow-up question, "Is making content relevant the same as 21st-century skills and themes?" Hazel replied:

I think it's similar. It's not the only part of being 21st-century skills, but if they see relevance, they're going to be more engaged, and they're going to be able to make connections, like using their critical thinking skills in communication also.

During the focus group interview, Hazel again highlighted relevance and its importance for to teaching 21st-century skills and knowledge.

And then is social studies, it's ancient things, which isn't the most exciting for students to learn about things that happened 5, 000 years ago. So, it is a bit of a challenge to tie in 21st-century skills and to make it relevant to them.

This is a component of 21st-century teaching that I had not accounted for in this study, but the adopted framework needs to be expanded to include relevance in some capacity.

According to Herrington and Kervin (2007), "A thinking curriculum is one that provides a deep understanding of the subjects and the ability to apply that understanding to complex, real-world problems that the student will face as an adult" (p. 64). Furthermore, linking knowledge with real world contexts is a critical component in the 21st-century teaching model (Alismail & McGuire, 2015). This is not only the challenge for Hazel; it is a challenge for educational leaders.

The final theme to emerge in Hazel's data was **Fidelity to Curriculum**. The interpretive codes attached to this theme were *perceived flexibility*, *curricular expectations*, and *accountability*. *Curricular expectations* was a strong theme in Hazel's interview and journal data. As stated earlier, new science standards have recently been adopted in the district and as a department chair, Hazel has been a leader for her building, and shepherding

these changes through to her colleagues is part of her responsibility. Although she has taken up this task with positivity and embraced the new science curriculum, it is not without reflection. When discussing the integration of 21st-century skills and knowledge as identified in the P21 framework, she said:

I think the science curriculum does a really good job of this. Our new textbooks and things that....The new resources that we have are designed around the national next generation standards and it all focuses on these skills. So just working through those and implementing them in the new way, following the new standards, has been the challenge but the curriculum itself does a really good job of implementing those.

Present in this statement is fidelity to the new standards, and despite what she categorizes as difficult, she believes the new standards adequately address 21st-century skills.

During the focus group interview, Hazel echoed Penelope's reflections on the theme

Fidelity to Curriculum.

I would agree with you because I think when we try to have fidelity, but then we know students aren't understanding, it's like okay, well, are we going to stick to what we're supposed to do, or do we do what we know is best for kids and like go back and reteach and try to balance. You know what the kids need, but also with that accountability for us where we do have to have fidelity, and we have to be moving along in the curriculum.

As I have discussed in previous cases, this tension between teacher obligations to district curriculum versus their moral obligations to students was on full display in Hazel's previous comment. *Curricular expectations* are a reality in a standardized movement in which Hazel find herself.

Perceived flexibility was the next interpretive code to emerge and had moderate presence in Hazel's data. During her interview, Hazel discussed the rigidity in her curriculum. I heard this interpretive code come to life as Hazel described the new science standards and her perceptions about the flexibility present in that curriculum:

In science, there's not so much flexibility. It's a little more rigid I think with what they're expecting us to teach and then we have a very confining amount of time for the expectations of what we're supposed to teach. I have a set number of things I'm supposed to get to, but how I approach those and how I teach those to the kids, I have a lot of freedom in the ways that I can incorporate literacy or incorporate having them work through a problem or problem solve something and apply it to modern day times also.

Teachers in public, high stakes classrooms are making decisions based on policymakers' demands for standardization (Parker & Neuharth-Pritchett, 2006; Parks & Bridges-Rhoades, 2012), and this was visibly on display in every aspect of Hazel's interview and lesson reflection journals.

The last emergent code present in Hazel's interview data was *accountability*. Phrases, words, or sentiments that speak to issues of accountability, compliance, and the powers that enforce curricular fidelity were coded accordingly. During the interview, Hazel recalled her recent struggle to implement the new district unit assessments.

We continue to be frustrated because we have shown them that there are questions in those assessments that we aren't covering in the units—it's not even written in. Those questions are also written in a way that make it almost impossible for students to read. We have to spend time teasing out the invalid questions so students can make sense of their assessment grades. It's all just a lot.

As she was revisiting these perspectives, I recalled the conversation she brought up in the interview and her frustration. My response at the time, unbeknownst to me, was an additional source of frustration for Hazel as *accountability* is for most educators. I asked, "What did Matt say about the unit assessments?" (Matt [pseudonym] is the science district curriculum coordinator who reports directly to the Associate Superintendent of Curriculum and Instruction.) "Matt said that a bulk of those questions should have been covered in the unit and that since they were state assessment like questions, the extra practice would not be bad for students." Clearly, Hazel was frustrated. What is also clear from this conversation is

the powers of accountability with regard to curriculum and assessment do not rest with Hazel. In this district, they also do not lie with the building principal. As a result, Hazel finds herself frustrated by the extra work and lack of autonomy with regard to the unit assessments. Erichsen and Reynolds's (2018) study examining the effect of school accountability on workplace culture and teacher morale concluded that autonomy is eroded when teachers in struggling schools are forced to give up activities not directly tied to accountability assessments, or have to sacrifice instructional time and student attention to increase remediation in tested topics. Certainly these factors are present in Hazel's frustrations with the new unit assessments.

As the presumed instructional leader, I have often felt that many of these responsibilities are farmed out to people outside of the building. Rather than having the authority or confidence of the district to make decisions about curriculum and to a significant degree, even instruction, decisions are centralized and left largely up to coordinators. This lack of autonomy and power serves to stifle teacher creativity and morale. Questions about selection of novels in ELA classes, pacing, questions on an assessments, culminating events, sequence of units, Lexile levels of selected texts, and even instructional frameworks are given to teachers. Despite continued poor performance on state assessments, the district has not signaled a major change in direction. In fact, if anything, they have doubled down on the idea that quality learning can be obtained by a formula that follows a logical sequence. As a result, often students are bored and Hazel is frustrated.

Case Five: Merica

Merica has been teaching for five years. She teaches eighth grade math and is beginning her third year at Buena Vista Middle. Merica taught her first two years in an area

charter school as an upper elementary teacher. She holds a Bachelor's degree in education and a Master's degree in instructional technology, and she is currently working on an Educational Specialist in instructional technology that she will complete by the end of the year. Merica discussed some of the difficulties present when she was teaching in the charter school with regard to students and her expectations versus those of the administration. Merica did not offer this part of her story to give me insight into her belief system as an educator and what she values and holds dear, but I believe at an unconscious level she does. Right or wrong, Merica very much sees her role as an educator that is critical in the lives of her students; and since her role is critical, it should be predictable, controllable, and replicable. She is a math teacher through and through.

The first theme that presented itself in Mercia's journal and interview data was **Pre-Active Stage Inputs**. This emerged through the interpretive codes, *students as inputs and content as inputs*. In one of the journal entries she noted, "students were asked to access background knowledge from different content areas. This is something I needed to build in them because these are things most of them do not come equipped with." During her interview, Merica spoke frequently about student needs and how that impacted instructional decisions. This gave me insight into the level of conscientiousness she possessed as she planned for instruction and what specific information she incorporated at this stage.

Our content area goes in standards, of course, of eighth grade mathematics and what students need to learn, but also information that I know about students, background knowledge that they either have or are missing, and how I can plan to meet not only our current goals, but to help students in supporting them with the background knowledge they need to be successful, even if they haven't acquired that in previous grades.

Background knowledge is frequently cited by Merica in both her reflection journals and interviews. Roughly 70% of the students in Bella Vista Middle School are below grade level in both reading and math and need interventions in both (Bella Vista Middle School, 2017). If seven of ten of the students that come into Merica's classroom need intervention, it is safe for her to assume that background knowledge is needed. When Merica said, "even if they haven't acquired that in the previous grades," what she referenced was not necessarily background knowledge, but rather, skills and years of grade level expectations that were not acquired. During the focus group interview, as we were reflecting on the theme, **Pre-Active Stage Inputs**, Merica again revisited student readiness and background knowledge as a consideration during the pre-active phase of teaching:

I feel that's a significant struggle that I face in mathematics curriculum, especially, when content is so very linear, and students have to have skills to build upon one another. So, we're trying to get them to be successful at their grade-level content that they need. Knowing that intermediate learners, some of them may not have the skills to skip count initially or do some basic computation skills can make staying on track with those things very difficult.

The fact that Merica perceived she needed to address students' missed grade level content means that she will have less time to cover mandated curriculum and be less likely to divert attention away to integrate 21st-century skills. As a building leader, how do I expect teachers to tackle more when they do not feel they have enough time to do what is already given to them? This is a problem that educational leaders must address.

In her interview, Merica, expanded on this interpretive code, and more insight into her thinking about students and inputs came to light.

I think life and career skills are pretty significant, especially in our content area, because students need to be flexible, adaptable to different strategies, different methods of instruction. They are communicating and collaborating to form answers and responses, and share ideas with one another. And then of course, just the natural

productivity and accountability that comes from what they're expected to do after school, work, career, lives, you know?

In the pre-active phase of teaching, Merica is considering student readiness and skill acquisition, grade level content requirements, developmental needs, and learning and innovation skills such as critical thinking, communication, and collaboration. If there is an area that has been revealed to me as a building leader that has been a surprise, it would be that teachers are reporting the multitude of inputs they are accounting for as they are planning for instruction from the 21st-century framework. What I am unclear of at this point is if teachers are very good at attaching what they are doing to something and if that is the 21st Century Skills Framework, whether they will bend what they are doing into that paradigm. What is absent in the data points is just as surprising. Our school has done a lot of work to create community, to be more trauma informed, and to promote cultural competency. In Merica's interview, I would have expected to see more evidence of this work present in her data. I see this as a problem for me as a building leader at Bella Vista Middle School.

The next interpretive code, *content as inputs*, was strong in her interview and journal data. In the previous statement from her interview, she communicated how she balanced student needs against the content she teaches. She makes references to both, *content as inputs* and *instructional inputs* in the subsequent statement:

We work with a high percentage of students that are functioning well below grade level and sometimes they aren't naturally able to access the higher order thinking skills in themes and relationships of the content that we're doing. So sometimes we're getting to a more superficial level that doesn't allow the timeframe to have more extensive, more project base learning, or exploring more independent studies, giving them more chances to be creative thinkers, and have more open ended tasks, just because of the amount of background knowledge that we have to build. So I

think that a lot of times we're working on that background knowledge as opposed to maybe making it to tasks that would support those better.

This was Merica's attempt to reconcile a lot of student information with regard to current ability, background knowledge, and content. Merica's perspective seem to reflect what Haberman (2010) said about the pedagogy of poverty that characterizes teaching in urban schools. In his article entitled "The Pedagogy of Poverty versus Good Teaching," he discussed one of the tenets of this pedagogy: "basic skills are a prerequisite for learning and living. Students are not necessarily interested in basic skills. Therefore, directive pedagogy must be used to ensure that youngsters are compelled to learn their basic skills" (p. 83). These basic skills are performed to the exclusion of other more critical and engaging skills. "Whenever students are involved with issues they regard as vital concerns, good teaching is going on" (p. 87). During the focus group interview, Merica shared more of her thinking that speaks to a pedagogy of poverty.

I think that we have to do a lot of prioritizing of what is the most important need for our students at the time. Sometimes it is more global themes, and sometimes it is more direct fundamental building blocks, so to speak of our content.

Merica teaches several remedial math classes that focus on drilling students with learning objectives that have yet to be mastered per a quarterly computerized assessment. Merica seems to believe very strongly in what she does as a math teacher. Building basic math skills for students who are below grade level is the purpose of those classes. I wonder how much of this pedagogy she honestly ascribes to in her teaching. I wonder if this is not prescribed to her by the district. I wonder if her role in perpetuating a pedagogy of poverty is reinforced by the small gains on state assessments for which she is given affirmation and acknowledgment.

Teachers' beliefs and commitments, according to Hattie (2012), "are the greatest influences on student achievement, over which [teachers] have some control" (p. 22). Teachers, not programs, make the difference in student learning (Hattie, 2003). According to Hattie (2012), "The effect of high-effect teachers compared with low-effect teachers is about, $d=0.25$, which means that a student in a high impact teacher's classroom has almost a year's advantage over his or her peers in a low-effect teacher's classroom" (p. 23).

Merica's eighth grade pre-algebra classes made significant growth gains in a year as recorded on the state grade level assessments. Merica is considered a high-impact teacher and from her reflection journals, her focus on *instructional inputs* is clear. Merica recorded the following:

I needed to plan something that incorporated the idea of student flexibility and adaptability. I wanted to push student and promote academic grit and force them to reason through the math. This was the first time students had seen or worked with a circular grid, opposed to a traditional square grid. Though some expressed their concerns, working with this type of grid is an impactful way for students to visualize the expansion of the figures, and how dilations occur, in addition to the expectations for them to communicate their thinking and changes in thinking. So, grabbing all that, that needed to be reflected through instruction and that took planning and trial and error and lots of it.

The result of Merica's intentions, however, is a lesson that scaffolds students through complexity and forces them to fail and try and fail and try and thinking about their thinking and how it changed in light of new information. Her instruction reflects her perceived importance of innovation and learning skills. Critical thinking is not something that serendipitously occurs; it is a result of planning and teacher intention and all too often, not present in classrooms. Reflected in Merica's journals were several references to instructional strategies she utilized over the course of five days. During Merica's interview, she shared the following:

I would say that there are definitely built-in places for communication, collaboration. Or, rather, places I see I can build them into the curriculum and get students doing those things through things like think, pair, share, like card sorts and matches, and things like that that they do with partners.

Tyson (2009) reported that teachers spend most of their instructional time with students engaged in practices and activities they do not value such as “covering fact-based curriculum, drill and practice, rote memorization activities, and reviewing for high stakes tests, the results of which can have a devastating impact on their adolescent learners” (p. 38). Math scores in the district are drastically below the floor. For Merica to simply pull student state assessment scores and group students into categories based on proficiency would be easy. This “kill and drill” method of teaching is accepted, and Merica is validated in her efforts by positive praise in her use of data to focus on improving math scores.

However, the value of math, as Merica demonstrated, requires students to think and problem solve and reason. During the observation, as Merica circled the room and student after student was hastily rushing to get to the answer without annotating their thinking, Merica stated to the class, “The right answer is less important than the logic behind your thinking.”

The next theme revealed in Merica’s journal and interview data was **21st-century Framework Comprehension**. This was connected to the interpretive codes *perceived importance* and *implementation frequency* in Merica’s data. Critical thinking, collaboration, and communication had a strong presence in lesson reflection journals as well as in Merica’s interview. Cooperative learning is an effective way to increase student motivation and build internal motivation (Joyce, Bruce, Weil, & Calhoun, 2009). Trilling and Fadel (2009) highlighted that students working in groups can enhance many aspects such as mutual

respect and compromise. The value Merica ascribed to collaboration and communication was echoed in her reflection journal:

Students were asked to collaborate to make their dilations and then share their solutions with classmates and they would agree or disagree with those solutions and give their reasoning. Peers compare the processes to compare for accuracy and efficiency, and share ideas and strategies.

Small group conversations about the learning is a powerful strategy and addresses learning and innovation skills from the P21 framework. During Merica's interview, she also addressed collaboration and how it is presented through her content.

Sometimes just that getting students the information that they need is the primary goal, so a high yield strategy is....The words I'm looking for....The best, the direct route, to students acquiring a goal. So that I would say is my first priority, and then how I can use the four Cs and use those skills to support that after I know the content that they directly need.

This statement was an example of her decision to incorporate these skills so that students are purposely exposed to the four Cs of the P21 framework.

These skills are not intentionally written into the curriculum she is responsible to teach. Through the process of this study, as an educator I hesitate to say part of my thinking about a common core of state standards has changed. I hesitate to move toward anything that is as regimented and scripted as the system in which this study site is located. I hesitate to move toward anything that becomes an instrument for assessment versus a vehicle for quality teaching and learning. However, I see teachers struggling to "fit in," "fill in," and "splice in" the skills they know their students need in the absence of those being intentionally written in or addressed in the curriculum. Without a more organized and sustained systematic integration of the P21 framework, these skills are left to chance and teacher discretion, and thus an incomplete framework is presented and taught to students.

The P21 framework and the Common Core State Standards support each other to achieve the future skills that students need. By integrating cognitive learning and skills into curriculum, students can obtain deeper understanding of the subject and try to solve complex problems in the real world (Wagner et al., 2006). At this moment, I cannot be in favor of the state taking on this work; however, it is apparent teachers need support and help organizing how to integrate 21st-century skills and knowledge into the curriculum they are often compelled to teach,

The next interpretive code to emerge alongside *implementation frequency* was *perceived importance*. According to Lilly (cited in Yero, 2002),

If a teacher believes a program they have been told to use is based on a solid foundation, and if the program is based on beliefs similar to their own, they will notice ways in which the program works. If they believe it is a waste of time, they notice evidence supporting that belief. (p. 121)

Obvious in Merica's lesson reflection journals and interview is her belief that critical thinking is important for students, as revealed in her interview data:

I think critical thinking is most critical. Students have to be able to attack problems in a variety of ways, not just in our content areas, and anything that they do or make decisions about in life. We have to think critically and analyze inputs and outputs, and what, "If I do this thing, then a certain given result will happen," and how we can find the entry points to problems and analyze information so that we can be successful in problem solving despite the content area. So if I had to pick one, critical thinking, I would think would be the most important to me.

Mathematics easily lends itself to critical and analytical thinking. However, civic literacy in math is more difficult for teachers to imagine incorporating in intentional ways. This is an area educational leaders must address. Civic literacy in math among teachers is a powerful motivator that will justifiably keep them from readily incorporating 21st-century themes into their content.

The final theme to emerge in Merica's data was **Barriers to Implementation**.

Students as barriers had a moderate presence in Merica's data. Several of the statements already referenced in her case are also used in this section as they were coded twice and binary in their meaning to this study. During her interview, Merica's response here illuminates her thinking about this theme.

I think that I have the ability to do that and make those decisions to support my students. I would say not only because sometimes time is just an issue. There are certainly ways that these things can be more present and shared in our content area with students. But unfortunately, we work with a high percentage of students that are functioning well below grade level and sometimes they aren't naturally able to access the higher order thinking skills in themes and relationships of the content that we're doing. So sometimes we're getting to a more superficial level that doesn't allow the timeframe to have more extensive, more project base learning, or exploring more independent studies, giving them more chances to be creative thinkers, and have more open-ended tasks, just because of the amount of background knowledge that we have to build. So I think that a lot of times we're working on that background knowledge as opposed to maybe making it to tasks that would support those better. So I think I have the ability, unfortunately, time restraints make that the most difficult.

Student ability as a barrier to being able to push them to higher levels of thinking was a recurring strand that wove through this study. The emergence and prevalence of this theme presents challenges to the building and me as the building leader. I keep connecting this back to an article on the pedagogy of poverty and cannot help but think it needs to be revisited. Haberman (2010) maintained,

The pedagogy of poverty is sufficiently powerful to undermine the implementation of any reform efforts because it determines the way pupils spend their time, the nature of the behaviors they practice, and the bases of their self-concepts as learners. Essentially, it is a pedagogy in which learners can succeed without becoming either involved or thoughtful. (p. 84)

The emergence of this shared thinking is a significant finding in this study, and it is an area that warrants further discussion.

The final theme of **Barriers to Implementation** emerged in Merica's data, expressed through *vast content*. This interpretive code speaks to issues of time and volume of content that teachers must address and cite or reference in some form as a reason that limited their implantation of 21st-century skills and knowledge into their lessons. During the focus group interview, Merica touched on this theme with this statement:

I think time constraints are significant. We only have so much time with our students and so making sure that they're getting the content they need in that time is challenging. Even if we do have ways to relate 21st-century skills in more in-depth projects or things like that, there often is not seemingly time.

Merica's comments highlight another tension that commonly exists when classroom educators begin evaluating the integration of 21st-century skills—content versus skills. The debate is not about content or skills. There is no one inside education who would argue against students learning to think in schools. However, the issue remains how to deliver content and skills in a way that improves students' ability to succeed in a post-secondary world (Rotherham & Willingham, 2010).

Merica revisited content as a barrier and cited her inability to integrate it with other content areas as barriers to implementation of 21st-century skills and knowledge. During the focus group interview, she said:

I think that we will be more successful with that when we're able to plan things across content areas, and we can discuss the mathematics that goes along with whatever they're doing in science and how that has historically been a part of history. So once we can branch, and then write about those things. And once we can expand cross-curricular, then I think it would be much more impactful. Our ability to implement 21st-century themes.

As the building leader, how can I facilitate cross-departmental collaboration to spur innovation and integration in this area? Unmistakably, Merica feels the integration of these skills and themes cannot be present until there is work across content areas, and that is not

something teachers can do on their own. In reflection, as the building leader, this is not something that I could do on my own and would need the support and assistance of no fewer than 11 different people that represent several district departments. Curricular decisions are tightly held in the district within the Curriculum and Instruction district team, and as a building principal, I am not a part of that team.

Answering the Research Questions: Cross-case Analysis

Contained in this section are the findings from the cross-case analysis of the five cases and the conclusions with regard to the research questions. Cross-case analysis involved searching for patterns of similarities and differences across cases with like variables and measurable outcomes (Miles et al, 2013). The data analysis approach, significant to case studies, allowed me to determine if themes had a strong or moderate presence in the data sets. I was able to address the central question and sub-questions that guided this study. The sub-questions are linked to the central question of this study: What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?

After the within-case analysis in the previous section, I categorized interpretive codes by recognizing patterns of similarities present through each of the five cases. I counted the occurrence of each interpretive code which resulted in the prevalent themes of this study: **Pre-active Stage inputs, 21st-century Framework Comprehension, Fidelity to Curriculum, and Barriers to Implementation**. Table 10 displays the prevalence of each of the major themes and interpretive themes that were found to be common across the five cases.

I reviewed the themes to ensure each had integrity and validity within the data. Additionally, themes were presented to participants individually and in a focus interview group where the five participants had the opportunity to reflect on the themes identified in their interviews, observations, and journal reflection data. Through the focus group interview, I was also able to capture other thoughts and recommendations from participants in light of the themes recorded from the overall data. Again, this helped ensure accuracy of reporting as well as validity and served to strengthen the emergence of the identified themes. In the following section, I answered each one of the sub questions raised in this study. As I address each sub-question, I also provide focus group interview data relevant to that question which helped to add insight as well. Focus group data was yet another layer that helped to build and detail a rich description of teachers' decisions and thinking regarding the unit of analysis: teachers' pedagogical decisions in the pre-active stage of teaching.

Table 10

Cross-Case Analysis

Observations	Katie	Sarah	Penelope	Hazel	Merica
Theme: Framework Comprehension					
<i>21st-century Framework Familiarity</i>	-	-	-	-	-
<i>Perceived Importance</i>	-	X	-	-	-
<i>Implementation Frequency</i>	-	X	-	X	X
Theme: Pre-Active Stage Inputs					
<i>Students as Inputs</i>	X	-	-	-	-
<i>Content as Inputs</i>	-	-	X	-	-
<i>Instructional Inputs</i>	X	-	-	X	-
Interviews	Katie	Sarah	Penelope	Hazel	Merica
Theme: Pre-Active Stage Inputs					
<i>Students as Inputs</i>	X	X	X	X	X
<i>Content as Inputs</i>	-	X	X	-	X
<i>Instructional Inputs</i>	X	-	-	-	-
Theme: Framework Comprehension					
<i>21st-century Framework Familiarity</i>	-	X	-	-	-
<i>Perceived Importance</i>	X	X	-	-	X
<i>Implementation Frequency</i>	-	X	-	X	X
Theme: Fidelity to Curriculum					
<i>Perceived Flexibility</i>	X	X	X	X	-
<i>Curricular Expectations</i>	X	X	X	X	-
<i>Accountability</i>	X	X	-	X	-
Theme: Barriers to Implementation					
<i>Vast Content</i>	X	-	X	-	X
<i>Students</i>	X	-	X	-	X
	-	-	-	-	-

Table continues

Journals	Katie	Sarah	Penelope	Hazel	Merica
Theme: Pre-Active Stage Inputs					
<i>Students as Inputs</i>	-	-	X	X	-
<i>Content as Inputs</i>	-	-	X	-	-
<i>Instructional Inputs</i>	X	-	-	-	X
Theme: Framework Comprehension	-	-	-	-	-
<i>21st-century Framework Familiarity</i>	-	X	-	-	-
<i>Perceived Importance</i>	X	X	-	-	X
<i>Implementation Frequency</i>	X	X	-	X	X
Theme: Fidelity to Curriculum	-	-	-	-	-
<i>Perceived Flexibility</i>					
<i>Curricular Expectations</i>	X	-	-	-	-
<i>Accountability</i>	-	-	-	-	-
Theme: Barriers to Implementation					
Vast Content	-	-	X	-	-
Students	-	-	-	-	-
Time Constraints	-	-	-	-	-

Sub-question 1

What teaching decisions do teachers make in the pre-active stage of teaching within the standardization movement?

The participants ranged in years of experience from 3.5 to 22 years of teaching. Given this varied experience, the complexity of decisions as they planned instruction was certainly reflected in their responses. All participants had strong occurrences of *student* and *content inputs*; only one teacher had a strong occurrence of *instructional inputs* present in her data, with two other teachers having a moderate occurrence of *instructional inputs* in their data.

The absence of instruction as a strong presence in four of the five cases is telling and illuminates equally as much. This has a significant impact on teachers; much of the accountability in the form of pacing guides, common formative and summative assessments,

common lesson plans, and standardization not only strips teacher autonomy and creativity, it hurts teacher efficacy. Pressures of accountability erode the goal of improving performance for both students and teachers in public schools by cultivating teacher dissatisfaction and contributing to teacher turnover, thus reducing student achievement in struggling schools (Erichsen & Reynolds, 2018).

In this standardized environment, teaching has become deskilled and generalized as curriculum is viewed as a pre-manufactured product that is to be regurgitated and delivered to students. The focus on testing has resulted in an environment that has become increasingly boring and disconnected from students' lives and sense of future (Beaulieu et al., 2005). Kenneth Saltman (2011) wrote:

Teaching becomes robotic, less about intellectual development and more about adhering to prescribed methodological approaches. Such prescriptive methodologies also disallow a focus on the specific educational content and student experience, rendering critical pedagogical approaches impossible. While critical pedagogies aim to expand understanding of the production of both knowledge and subjective experience, prescriptive methodologies aim to decontextualize knowledge and reduce comprehension of experience of the individual. (p. 62)

Teachers consistently used student data, perceptual and empirical; students' social, emotional, and developmental needs; their ability, perceived and targeted; standards-based content requirements; and to a more limited degree, instructional best practice as they planned. Even newer teachers in the study showed elements of all these inputs, *students*, *content*, and *instruction*. Again, the complexity of how teachers are able to use all of these to unpackage a lesson varies by teacher capacity. These conclusions or findings in the study were confirmed in the focus group interview when Penelope stated,

I was thinking a lot about the fidelity to the curriculum after we met. Just thinking about....Because you make choices all the time about what part of the curriculum you do and which parts you go over because there's too much and so what decisions should I be making based on students and their needs and how they learn best.

Penelope's statement, "you make choices all the time about what part of the curriculum you do" is subtle; however, it speaks volumes to her experience and pedagogical understanding. She concedes there is too much content to cover but uses her understanding of students, instruction, and content to target what she feels is most needed. Teachers often adapt curriculum materials to better fit their classroom practice (Davis et al. 2011; Remillard, 2005). Teachers' decision making also operates through an intuitive system that enables teachers to utilize cues and intuition to reach an understanding without data (Harteis, Kock, & Morgenthaler, 2008; Kahneman & Fredrick, 2005). Gun (2014) wrote, "expert teachers possess a richer knowledge structure of teaching; they are better skilled at pedagogical maneuvering, and have a wider repertoire of backup plans when instant classroom decisions are necessary" (p. 77).

Merica followed up later in this group discussion with the following:

I feel that's a significant struggle that I face in mathematics curriculum, especially when content is so very linear, and students have to have skills to build upon one another. So we're trying to get them to be successful at their grade-level content that they need. Knowing that, as intermediate learners, some of them may not have the skills to skip count effectively, or do some basic computation skills can make just staying on track with those things very difficult.

Teachers are making a multitude of decisions in the pre-active stage using information about students, content, and instruction. The complexity of these decisions varies by years of experience and teacher capacity. Thus, these inputs are less likely to be utilized by new teachers. A study of the pre-active and interactive decisions of teachers, based on experience, showed that when lesson plans deviated as planned, more experienced teachers made adjustments where less experienced teachers did not (Byra & Sherman, 1993).

Regardless of years of experience or capacity, the theme **Fidelity to Curriculum** was compelling in some form in all participants' data. This speaks to the pressures of accountability teachers feel in a standardized paradigm. Through this study, I learned that teachers' intentions with regard to instructional delivery were more pronounced than previously thought. Although all of these intentions may not coalesce in a way that highlights them in a classroom observation, intention is present more often than it is or can be observed.

Sub-question 2

What considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?

There were two interpretive themes that gave pronounced insight into this sub-question, *students as inputs* and *students as barriers*. These interpretive codes were attached to the themes **Pre-Active Stage Inputs** and **Barriers to Implementation**. Both these interpretive codes highlight just what student information, from academic to social-emotional, that teachers account for as they are planning for instruction. From this study, I found that teachers regularly cited deficiencies in students as a justification for doing or not doing specific lessons or delivering rigorous content. During the focus group interview, participants responded to this finding. Penelope stated:

Sometimes the kids don't come with the confidence to do some of the 21st-century activities we'd have for them. And so it takes longer to prepare them, to scaffold the lessons, to make them ready to do more advanced thinking activities, outside the box things. It's just time. You can't just walk in and do a high-level activity yet.

Katie added to the discussion:

A lot of our kids don't come with the skills they need because of the significant trauma they've had or cultural differences in what I think the "system" quote-

unquote, I don't know, isn't set up for that. And so I think a lot of times we do get to the point where we've got the content out, but by the time we model those expectations and those skills, there's not enough time to see them all the way through.

Again, deficits of students were cited as considerations consistently by teachers as they are planning for instruction. According to decision making models, an important factor contributing to their decisions is the perceived state of the learner (Englert & Semel, 2001). They continue, "while teachers apparently have at their disposal a wide variety of information about pupils, they condense and combine selected pieces of information into reasonably few 'best estimates of students'" (p. 112). It is these "best estimates" that contain unchecked biases and lead to practices that reinforce the pedagogy of poverty, which include giving information, asking questions, giving directions, monitoring seatwork, reviewing assignments, giving tests, and punishing non-compliance (Haberman, 2010).

Teachers did cite making decisions about instruction from student readiness, social and emotional needs, content requirements, and pressures of accountability. However, although these other considerations were cited, the idea that teachers could not get more advanced in their content or activities or incorporate 21st-century skills because of student deficits was consistent among participants. This counterintuitive thinking has a detrimental impact on student learning. Although there has been a push in educational reform to address inequities of educational opportunities for students, inherent organizational challenges, out-of-school factors, and macro and micro-politics have rendered reform efforts ineffective at bringing substantial change to urban schools. To this point, de Silva et al. (2018) maintained:

Many of the social arrangements that are in place seem to benefit and mirror the dominant powerbase, the White majority, yet others who are of Color, specifically

African Americans, seem too often to have fallen back into the abyss of racial woe.
(p. 23)

Black communities, according to Bell (2004), have high proportions of low achievement and high dropout rates among students. Out-of-school factors and macro-political issues such as school funding and “the American educational system’s refusal to recognize African Americans as a distinct cultural group” (Ladson-Billings, 2009, p. 10), have ensured that large scale reform efforts have fallen short.

Bella Vista Middle School has spent significant time over the past two years engaging in professional development in issues of cultural competency, the trauma of poverty, race, and unconscious bias. To not hear elements of this work present in teachers’ narratives is an area of concern and poses challenges to me as a building leader. I further address this in Chapter 5 in the discussion about the implications for educational leaders section.

Sub-question 3

How do teachers plan for teaching 21st-century knowledge and skills in the pre-active phase of instruction?

As stated earlier, there is more intention with regard to instructional planning on the part of teachers than can visibly be observed. Teachers are making considerations for a wide variety of inputs as they are planning for instruction. Emergent in the data was the persistent reference to critical thinking. If there was a strand from the 21st-century framework that was consistent among participants, it was critical thinking. The learning and innovation skills, or 4 Cs, were the most reported part of the framework that teachers responded as present in their reflection journals. Critical thinking was a strong presence in all of the teachers’

interview and observation data. As stated previously, Bella Vista Middle School has adopted critical thinking as an area of targeted development for teachers' growth plans. So, I would expect that this would be more prevalent in their data. Collaboration and communication was also a strong presence in teachers' data. This may be a condition of Merica addressing developmental needs of middle level learners. As a building leader, I tend to highlight quality teaching that includes student movement and frequent small group conversations about the learning. So, collaboration and communication may also be pre-existing patterns of teacher behavior in the building and not necessarily a reflection of the degree to which teachers are thinking about 21st-century skills and knowledge.

Outside of these three learning and innovation skills that were most frequent (critical thinking, collaboration, and communication), the rate of frequency dropped considerably to almost nonexistent. Teachers reported that it was a struggle to implement themes and skills that are not intentionally written into the curriculum. Merica's statement during her interview provided insight into how she accounted for 21st-century learning. She said:

I think that, at least for mathematics, the themes are an area that our curriculum really lacks in. I think that there is not a lot of places that are built in to address those 21st-century themes, which I think is unfortunate because the math naturally leads to things like financial and economic awareness, and that type of literacy. I think that there are a lot more places where we could be intentionally connecting those things to our students, but as far as what is actually built into our curriculum, I think information, media, and technology, both are significantly less present than they should be. I think life and career skills are pretty significant, especially in our content area, because students need to be flexible, adaptable to different strategies, different methods of instruction but again, they're not intentionally written in.

Hazel continued the conversation by adding,

I would agree with you because I think when we try to have fidelity, but then we know students aren't understanding. It's like okay, well are we going to stick to what we're supposed to do to the next day and the next day, or do we do what we know is best for kids and like go back and reteach and try to balance. You know what the

kids need, but also with that accountability for us where we do have to have fidelity, and we have to be moving along in the curriculum and that often doesn't leave time to incorporate 21st-century type things.

These sentiments further add to the finding that a lack of an articulated and systematic means to address the curriculum is a barrier to 21st-century skills and themes being implemented. Without the ability or autonomy to make curricular decisions, teachers in the study struggled to implement 21st-century skills and themes into mandated units. Teacher autonomy varies according to the level of limitations placed on them by administration, and given that all teachers are bound by the organization, all teacher decision making is restricted in some way. (Scribner, Sawyer, Watson, & Myers, 2007).

The challenge for educational leaders is to find ways to extend teacher autonomy and creativity that gives teachers the flexibility to creatively synthesize 21st-century skills and knowledge into existing content. The debate about content versus skills is one that educators need to stop having and one the accountability movement actually perpetuates. If scripted curriculums and pacing guides do not cover 21st-century skills, it becomes very difficult for teachers on their own to effectively and intentionally infuse these into lessons. To the detriment of students, it really becomes a game of chance whether the teachers that serve them have the skills and expertise to manage this. This has a more dire impact on Title 1 schools (high poverty) and schools that enroll higher proportions of students of color. These factors tend to be mutually reinforcing as more inexperienced teachers are found in larger numbers at schools serving lower income and communities of color (Erichsen & Reynolds, 2018).

Hence, teachers are less likely to have the expertise and skills sets to manage the pressures of accountability, student needs, and 21st-century skills. The lack of a majority of

this framework that was present in teachers' data, most notably creativity, is problematic if educational leaders want teachers to be creative and innovative. I am not sure how I reconcile this issue within the standardization and accountability movement in which I work.

Summary

The purpose of this heuristic case study purpose was to deconstruct teachers' decisions about the selection, development, and implementation of instruction in the pre-active stage of teaching and to illuminate considerations made for 21st-century skills and knowledge by middle level educators at Bella Vista Middle School. My goal was to develop a thick, rich description of teachers' thinking about the implementation of 21st-century skills. Through this study I have found it more than fascinating to deconstruct teachers' thoughts and hear everything they hold simultaneously in their educational frameworks, as they work to build lessons and plan to unpackage content to their students.

Data were collected from five teachers in the form of individual semi-structured interviews, lesson reflection journals, observations, and a focus group interview. These data sources were coded in an effort to discover themes and gain insight into the research questions. Chapter 4 began with a brief overview of problem, purpose, and research questions, followed by the description of participants and reflections regarding the research process. Within-case descriptions were then presented through case profiles of five participants, and their stories were told through the emerging data. The emerging themes from the cross-case analysis were used to answer the research questions. Implication of findings and recommendations for future research are addressed in Chapter 5.

CHAPTER 5

IMPLICATIONS OF FINDINGS

The purpose of this heuristic case study was to deconstruct teachers' decisions about the selection, development, and implementation of instruction in the pre-active stage of teaching and to illuminate considerations made for 21st-century skills and knowledge by middle level educators at Bella Vista Middle School. Conducting heuristic research was a daunting task; after having gone through the process, in retrospect, I see several areas with regard to data collection and the design of the instruments that could have been created in a way to yield an even deeper insight into the central question and sub-questions. With that being said, the process afforded me an opportunity to deconstruct teachers' thinking and gain a deep insight into the phenomenon being studied and will help me as an educational leader to not only lead teachers more intentionally for integrating 21st-century skills and knowledge into their instruction, but also help me better evaluate the instruction of teachers.

In this chapter, I discuss the implications of findings for school leaders, provide recommendations, suggest areas for future research, and conclude with final reflections regarding this experience. As I discussed in detail in Chapter 4, four major themes emerged through the collected data and analysis: Pre-Active Stage Inputs, 21st-century Framework Comprehension, Barriers to Implementation, and Fidelity to Curriculum.

Implications of Findings and Recommendations

Based on the findings of this heuristic case study, I offer recommendations to building and district leaders who are in positions to evaluate curriculum and instruction and bring to focus curriculum and practices that meet the needs of all students, allow teachers a voice in the decision making process, promote autonomy, and grant to them the creative

license to engage and teach students. This includes a culturally responsive network of educators, unpacking a culturally responsive curriculum, one that meets the needs of diverse 21st-century learners and prepares them for a post-secondary future, not a spring assessment. It includes educational leaders who build organizational trust and positive cultures through true reciprocal collaboration. Embedded within these themes were topics that pose challenges to educational leaders and proved to be significant and worthy of discussion and reflection. The discussion of the implications of this study includes the following topics: deficit thinking and students as barriers to implementation, skills versus content and the need for systematic integration, and the trauma of accountability and teacher efficacy. Each section begins with a discussion of the theme as it related to this study and is followed by implications for educational leaders.

Tackling Deficit Thinking and the Pedagogy of Poverty

Throughout this study the pervasive belief that students lacked an academic and even social and emotional readiness to tackle higher cognitive lessons and tasks associated with 21st-century skills and knowledge was an emerging theme among participants. These thoughts were characterized by statements such as this one from Katie's interview:

A lot of our kids don't come with those basic skills because of the significant trauma they've had or cultural differences in what I think the system quote-unquote, I don't know that I'd like to say that I can't think of something better is set up for that. And so I think a lot of times we do get to the point where we've got the content out, but by the time we model those expectations and those skills, there's not enough time to see them all the way through. So we try it, then we get frustrated and then it's okay, well, we'll try it this next time, but there's no consistency because of the time constraints.

Deficit thinking is based on the pseudoscience predicated on both racial and class bias.

Often teachers blame the victims for school and student failures rather than examining how

organizational structures prohibit poor students and students of color from learning (Valencia, 2010). When students who hold culturally different speech or behaviors do not align with teacher expectations, teachers make assumptions about student ability and performance and may lower expectations, even interacting with these students less frequently (Bryan & Atwater, 2002). The dangers in this thinking is that teachers perceive an automatic intersection of race and socioeconomic status (Samuels et al., 2017) and begin to generalize students, their experiences, their aptitudes, and what they believe they need and can do.

As the building leader, I think about these presumed intersections of race and poverty and wonder how I may have contributed to this narrative. How may our district's focus on student achievement as measured by AYP from state assessments perpetuate and deepen deficit thinking? In the five years I have been building principal, our staff has conducted book studies with Eric Jensen's (2009) *Teaching with Poverty in Mind*; we have conducted Windshield Surveys of our student attendance area; held a poverty simulation for staff; and regularly evaluate grade, attendance, and discipline data disaggregated by race, ethnicity, and gender. However, as much as I have tried to illuminate the experiences of our students as a means to seek understanding, I also fear I may have contributed to the pedagogy of poverty and the deficit thinking that goes with it. The pedagogy of poverty, Haberman (2010) wrote:

is sufficiently powerful to undermine the implementation of any reform efforts because it determines the way pupils spend their time, the nature of the behaviors they practice, and the bases of their self-concepts as learners. Essentially, it is a pedagogy in which learners can succeed without becoming either involved or thoughtful.

This becomes an unquestioned educational framework for “those” students. Caruthers and Friend (2016) referenced this “otherness” construct present in urban education,

where a fleeing White population has created spaces of “otherness” solely for poor children of color, taught by predominately White teachers who are likely to interact with students based on their beliefs and assumptions about the social constructions of race, ethnicity, class, gender, and sexuality. (p. 26)

One can hear through teachers’ narratives repeatedly this idea of “otherness” and a construct rooted in the pedagogy of poverty that seeks to transplant basic skills to “catch these kids up.” Teachers do this in good faith because it is what is expected of them, it is what they are rewarded for, and it is even what their students reinforce as acceptable. Students reward teachers by compliance and punish by resisting. “[Teachers] believe they are in control and are responding to ‘student needs,’ when, in fact, they are more like hostages responding to students’ overt or tacit threats of noncompliance and, ultimately, disruption” (Haberman, 2010, p. 84). In this way, teachers deliver what is easier for students to do; these practices feed and reinforce beliefs and ensure students get more of the same.

In reflection, as the building leader, I ask is competency, understanding, and celebration of diversity and culture enough to combat the pedagogy of poverty and the deficit thinking that goes with it? Gorski (2016) claimed that focusing on diversity and celebratory multiculturalism can actually diminish the goal of establishing equitable and just environments in schools. Educational leaders, myself included, need to have the courage to tackle inequities, deficit thinking, and organizational structures counterintuitive to culturally responsive teaching and learning. I will expand on the need for educators to dismantle deficit thinking by moving beyond the idea of simply being anti-prejudiced or anti-racist to becoming an activist working in opposition of the pedagogy of stratification and inequity.

This goal will require leadership for equity and that has not been an area educational leaders have effectively addressed. Furman (2012) wrote, “educational leadership as a field has made a limited contribution to understanding the actual practice of social justice leadership in k-12 schools and the capacities needed to engage in this practice” (p. 192). This leadership is needed to ensure the equity of quality instruction for all students and that they are all receiving the critical 21st-century skills and knowledge requisite to be successful—not just the lucky and privileged.

Replacing Deficit Thinking

At a minimum, educators must provide a healthy environment for all students that includes safe classrooms and buildings. When students are hungry, we feed them. When they need coats, toiletries, and backpacks, we provide them. Educators do this willingly because they care about the kids they serve. But is it enough? What other obligations do educators have to care for students? Would recognizing one’s own biases or prejudices as they relate to teaching and curriculum, qualify as “caring” for kids? Would a district that evaluates its own curricula through the lens of culturally responsive pedagogy qualify as caring for kids? I would argue, yes, it would. Educational leaders need to expand their understanding of what it means to “care for kids” and include an anti-biased, anti-racist lens and practices. “In a racist society it is no longer good enough to be non-racist; we must be anti-racist. Anti-racist education equips educators and students with the necessary tools to transform the conditions and outcomes in their community” (Ask Teaching Tolerance, 2019, p. 9).

To confront existing power dynamics, school leaders must do more to identify and bring in the contributions, skills, and domain knowledge that exists within the communities they serve. Gonzáles, Moll, and Amanti (2005) wrote,

it is impossible to ignore, then, that schooling practices are related to issues of power and racism in the US society...It is in the context of this recognition that schooling practices are always intrinsically related to broader issues of social class, ideology, and power, that we must situate our understanding of funds of knowledge. (p. 276)

Funds of knowledge, or FoK, is aimed at countering deficit thinking. This work is predicated on an assumption that the educational process can be significantly improved when teachers learn about their students' daily lives (Gonzáles et al., 2005). By recognizing and legitimizing lifestyles in cultural practices of students and their families, connections of respect could be built that would reduce prejudices and stereotypes between schools and communities (González & Moll, 2002) and link curriculum and students' experiences and lifestyles to educational practices (McIntyre, Rosebery, & Gonzáles, 2001). FoK is described as a pedagogy of transformation (Wrigley, Lingard, & Thompson, 2012) that serves to constrain prejudices and stereotypes (Templeton, 2013). This is the work educators and educational leaders need to be embracing. As a building principal, I immediately think about how FoK can fit in the context of accountability and standardization and wonder how to reconcile the stratifying nature of accountability with it.

Educational leaders are caught up in the accountability movement, and the mission of urban schools has become focused on closing the achievement gap (Duncan, 2006). Caruthers and Friend (2016) asserted,

As educators overanalyze the gap using sophisticated statistical measures, they no longer see the children behind the numbers. The gap has become a cliché, and through the power of language educators miss opportunities to apply resiliency and

strength based practices. Positive and caring relationships with students are not a widespread priority in urban education. (p. 66)

Educational leaders need to model the kind of critical analysis of practice and curriculum that teaches educators and students what it means to be anti-racist versus non-biased.

Educational leaders like myself must commit to perpetuating learning that critically examines how to meet the social and academic needs of diverse learners in the 21st century.

Educational leaders must develop a deeper knowledge and appreciation of diverse cultures, begin the work of implementing equitable and inclusive practices, and model strategies for challenging existing barriers (Samuels, 2018). Robin DiAngelo said, “If you want to be seen as a team player, don’t bring up issues of racism” (Teaching Tolerance, 2019). Educational leaders do not have the luxury of being idle or simply a good team player when it involves issues of inequity and deficit thinking. The issues of race and equity must continually be evaluated, and building and district leaders must create a culture that examines how individuals as well as the organization’s actions or inactions counter or perpetuate deficits and biases and illuminate or obscure injustices.

Skills versus Content and the Need for Systematic Integration

Emergent through this study was the challenge teachers repeatedly articulate of finding time or spaces within their mandated curriculums to teach 21st-century skills and knowledge. Prior to this study, I was an advocate for the idea of teachers striking out on their own and integrating the P21 framework into their lessons. However, what has become clear to me through this study is that this is too much to ask of teachers. Additionally, without an articulated approach to addressing 21st-century skills and themes, it would be left to chance and teacher discretion and thus would be disjointed and inequitable. Where a

student is fortunate enough to have access to highly qualified teachers, the chances of these skills being taught is much more likely.

For our public educational system to be more effective and equitable, skills that have been reserved for the few or fortunate or lucky must become universal (Rotherham & Willingham, 2010). The debate transcends the typical skills versus content usually associated with the 21st-century skills integration and moves into one of equity. Without a systematic plan for integration, 21st-century skills and knowledge is not distributed equitably, and given that more inexperienced teachers are found in greater numbers in districts and buildings serving lower income and students of color (Erichsen & Reynolds, 2018), this has a more detrimental impact on poor and culturally diverse and students.

Jagannathan, Camasso, and Delacalle (2019) wrote:

It is widely acknowledged that our public schools have failed to produce sufficient levels of high quality STEM education. The mathematics and science performance of minority and disadvantaged students has been especially troubling with black and Hispanics substantially underrepresented in the STEM labor market.

Although science, technology, engineering, and mathematics are fields unto themselves, it is the 21st Century Skills Framework that provides the necessary prerequisites into these high demand careers. Labor economists declare the battery of non-cognitive skills critical for labor market participation include: employability skills such as the ability to communicate effectively, work successfully in teams, solve complex problems, express oneself with clarity both orally and in writing, motivate others, as well as listening skills and conscientiousness (Attanasio, 2015; Cunha & Heckman, 2008; Heckman, Stixrud, & Urzua, 2006; Ibararan, Ripani, Tabooda, Villa, & Garcia, 2014; Stewart, 2018).

Present in the data collected from the participants in the study was a collective struggle to “fit in” 21st-century skills and knowledge when and where teachers felt it was doable. Even within the five participants of the study, there was a disparity in their ability to effectively integrate or bend the pressures of accountability to make room or weave 21st-century skills into their lessons. Within the accountability paradigm that the teachers find themselves, it is clear where they tend to land in this debate of skills versus content more times than not. They end up pushing content. Hersh (2009) maintained, “Content is necessary but not sufficient. Because teaching time is finite and content virtually infinite, skills that allow one to continue learning and to make judgements about the meaning, adequacy, and accuracy of content are more important than ever” (p. 52).

The challenges for building level leaders who do not necessarily have the power to organize and structure and “write curriculum” in a way that helps teachers systematically address and account for 21st-century skills and knowledge is as follows: a) stay engaged in the conversation with teachers and district leaders, b) find ways to enhance professional development for staff that demonstrates what and how effective integration looks like, and c) integrate 21st-century skills with culturally responsive pedagogy so teachers see more clearly how effective instruction fits into their educational imperative to ensure an equitable education for all students. However, educational leaders need not swing the pendulum of accountability too sharply at the direction of 21st-century skills and knowledge; if they do, it will most assuredly be to the detriment of teacher efficacy.

Clearly, the participants in this study were struggling to implement 21st-century skills and knowledge into the already crowded curriculum they are obligated to teach. With the exception of Hazel, who teaches science, the other participants did not feel their

curriculum effectively addressed the 21st-century skills in the framework. The teachers in this study worked to “squeeze” or “fit” in several of the learning and innovation skills including critical thinking, collaboration, and communication; however, 21st-century themes, life and career skills, and even information, media, and technology skills were rarely addressed. Educational leaders must work to ensure that these 21st-century skills are readily taught to all students, not just the lucky or privileged.

To start, educational leaders must ensure that curriculum is comprehensive and covers both content and skills. Domain knowledge and skills should be intertwined into curriculum; the absence of this marriage of skills and content leaves teachers on a pendulum, trying to balance between the two. As several of the participants in the study reported, 21st-century skills do not get covered because they felt the curricular expectations were too great and they could not “fit them in.” Distributed leadership on the part of educational leader is another component that will increase teacher autonomy and empower teachers to be leaders and architects of school-wide changes (Mayer, Donaldson, LeChasseur, Welton, & Casey, 2013) especially those pertaining to curriculum and instruction. Teacher organizational commitment is bolstered when classroom teachers are given an opportunity to participate in the decision making process (Hulpia, Devos, & VanKeer, 2011).

Additionally, educational leaders need to provide much more professional development about teaching 21st-century skills such as critical thinking, communication, creativity, global awareness, civic literacy, initiative and self-direction. Inherently, teaching students to collaborate, communicate, and debate means they are going to do those things in class, and teachers also need to learn and understand how to manage a classroom of middle level learners engaged in such activities. Many teachers dabble and experiment in these

areas, and because students do not yet know how to do these things, the class feels like chaos and they quickly trade in their student-centered instructional experiment for something more didactic and orderly. Educational leaders need to create a culture where these practices are praised and acknowledged and the idea of classroom as an incubator of experimentation is one that all teachers and students feel exists freely.

Finally, educational leaders need to learn to assess instruction that addresses 21st-century skills such as creativity and collaboration more effectively. Reading comprehension is a skill, understanding an author's purpose is a skill, formulating an argument is a skill, and those skills can be taught and measured. However, what does the teaching of creativity look like and how is it measured with regard to teacher effectiveness as well as in student learning? The reality of education has been that what gets tested, gets taught. Educational leaders need to pose these questions to teachers and allow them to grapple with these issues and collaboratively create assessments for both teaching and learning.

Trauma of Accountability

One of the major themes to emerge from this study was the pervasive tension between teachers' contractual obligations to teach mandated curriculum at a certain time, in a certain manner, versus doing what they feel is in the best interest of their students. Educational scholars argue that teacher morale and efficacy has suffered from the pressures of accountability and constraints of standardization (Erichsen & Reynolds, 2018). Repeatedly, through interviews and journal reflections, these pressures of accountability and the conflicts they caused within teachers emerged. I could see and hear teachers struggling to reconcile their desire to do right by students versus adhering to the pacing guide and curriculum coordinators' criticisms for being "off pace" or "deviating" from the unit maps

or worse, “lacking fidelity to the curriculum.” These sentiments were characterized by statements such as the following from Penelope’s interview.

I do. I feel like I have a lot of freedom to do that (going back to teach missed skills). I don’t know that everyone feels that way, but I feel the freedom to veer off course, if I think it’s necessary. As a leader in the department, I try to not be contradictory to what we’re being told from above, but personally in my own space, I will, yes.

Katie strikes a similar tone during her interview.

I think that I’m always a little bit worried that it could be seen as straying from curriculum, not by building administrators necessarily, but from maybe district administrators. I feel like there’s some pushback when they’re straying too far from curriculum, but it’s more important for me to do what’s best for my kids rather than be fearful of something, any kind of repercussions.

The conflict the pressures of accountability cause within the teachers in this study was unmistakable. They must constantly reconcile their personal convictions to care for and teach students with their need to stay employed, earn a living, and be seen as a “good teacher.” The accountability of high stakes assessments creates substantial pressures on the school community and occupy a disproportionate amount of time to tested topics to the detriment of students’ developmental needs, and restricts many teachers from the autonomy to teach creatively (Brit & Teele, 2008; Lambert & McCarthy, 2006; Lavigne, 2014; Wills & Sandholtz, 2009).

As a building leader, I have certainly been aware of teacher dissatisfaction with the loss of autonomy and the rigidity of pacing obligations. I have, at times, even championed these causes on behalf of teachers to the district office. However, what I was not aware of was how pervasively these constant pressures of accountability, assessments, and fidelity to curriculum infiltrate teacher psyche in negative ways and cause internal conflict, stress, and erode efficacy. Even though Penelope reported that she feels comfortable inserting themes

from outside her regulated curriculum, she qualified this and added that this only happens in “her own space.” This is to say, she does this when no one is looking and it is safe.

The accountability movement has more than negatively impacted public teachers’ working conditions, eroded teacher satisfaction, and led to increased teacher turnover. This is not surprising given how essential these characteristics are to teacher morale (Ladd, 2011; Ma & MacMillan, 1999; Renzulli, Linda, Parrott, & Irene, 2011; Ryan et al., 2017; Weiss, 1999). Educational leaders must balance the teaching of a standardized curriculum with teacher autonomy, flexibility, and the license to be creative. There is a science and an art to teaching, and given the hyper-accountability environment in which educators find themselves today, that pendulum has swung too far toward the scripted and mandated. If educators want students to be flexible, adaptable, innovative and creative, educational leaders need to allow teachers to model this through their chosen craft—teaching. Through this study, I learned that the teachers who participated are internalizing the pressures they feel to adhere to a curriculum with the sole purpose of making gains on assessments, and this is causing stress, tension, and moral dilemmas. As a building leader, this is impossible to ignore. I address recommendations for improvement in the next section.

Research shows that teacher turnover occurs at greater rates in Title 1 (high poverty) schools and at schools that enroll higher proportions of students of color (Ingersoll, 2001; Torres, 2016). The pain of accountability and the stress and conflicts it causes within teachers was a recurring theme of this study that has major implications for educational leaders. Erichsen and Reynolds (2018) wrote, “accountability pressures hurt teacher morale and increase the risk of turnover by undermining the professional culture of the school and by diminishing teacher cooperation and trust” (p. 1). So knowing that the very structure that

most educational leaders in urban education are charged with supporting erodes teacher morale, how do these same educational leaders reconcile their obligations to support and improve quality of work life for those same teachers?

Educational leaders need to focus more on creating positive workplace cultures, provide more structured and unstructured collaboration time among teachers, and foster organizational trust. A strong culture may also reduce the negative effects of the pressures of accountability and negative workplace tensions, boosting teacher efficacy and commitment to their schools despite challenges posed by external factors and challenges (Bryk & Schneider, 2002; Sterns, Banerjee, Moller, & Mickelson, 2015). Although educational leaders often cite the importance of positive cultures and collaborative communities, they fail to sincerely listen to teachers and give them input; they limit their autonomy by supporting programs and practices that reduce the art of teaching, and they fail to reflect critically on current programs and practices once they have been implemented, much to the dissatisfaction of teachers. Administrators who work to preserve teacher autonomy while exploring new reforms can sustain positive teacher efficacy and keep teachers attached and engaged to their buildings (Wills & Sandholtz, 2009). Teachers who feel heard and respected by administrators are more likely to hold to their school's broader educational mission and sustain their morale even when the building and district in which they teach are struggling (Erichsen & Reynolds, 2018).

Suggestions for Future Research

This heuristic case study examined five teachers in a uniquely diverse setting regarding their experiences integrating 21st-century skills and knowledge into their curriculum. Vicarious trauma is a reality for our educators, and educational leaders do not

focus enough on the mental and physical health and well-being of those who serve our students. Another component of teacher trauma, however, that I had not been aware of prior to this study was the degree to which pressures of accountability cause pervasive stress and tension in teachers. Teachers in this study reported that they frequently had to balance doing what they felt was needed for their students with adhering to district accountability metrics such as pacing guides, curriculum maps, and common assessments. It was clear to me from this study that the number of years of teaching experience a participant had, definitely affected their ability to integrate 21st-century skills and knowledge into the context of their curriculum. Increased teaching experience in participants also correlated to the teacher being more likely to take liberties or “deviate” from mandated curriculum as they felt it was needed for students.

During the process of conducting this study, there were several areas of future research that emerged and are worthy of study. These areas include:

- The impact of hyper-accountability on teacher and student efficacy in urban settings and reconciling the moral dilemmas in which teachers often find themselves
- The impact of randomized teaching of 21st-century skills in schools and the impact to students, especially students of color and those in underserved communities
- Expansion of this work utilizing teachers’ voices to gain more insight into how 21st-century skills can be more systematically addressed in curriculum and classroom lessons

- Measuring teacher efficacy in schools and districts where accountability pressures are greatest and uncover what impact hyper-accountability is having on students, their enjoyment and learning
- Capturing voices and experiences of teachers regarding the issues of teaching and assessing creativity, self-direction, and responsibility among students
- Investigate practices of new teachers and their willingness to integrate culturally relevant pedagogy and 21st-century skills in the curriculum. This might help schools to acquire information regarding the preparation gap between new and veteran teachers.
- Expansion of this study in more urbanized communities is warranted.
- Establish a study that examines the complete cycle of teaching through the pre-active, active, and post-active phases of teaching to determine the relationship between each phase and how one informs and strengthens the other.

As labor markets only grow more competitive, it is imperative that students have a battery of skills and knowledge capable of helping them navigate that world. Teachers, more than politicians and school leaders, have answers and ideas that need to be collected and utilized in school reform efforts.

Conclusion

I do not think I was meant to be a heuristic researcher; however, I have embraced the process and grown both as a researcher and educator through this research. Being free to incorporate my experiences over the past 20 years as a public educator more than contributed to inform the study. These experiences helped me make sense of the captured data and recognize patterns and recurring themes within it.

I still very much believe in the power of teachers. In fact, I've cited plenty of data that supports the impact highly qualified teachers have on student learning and success. Prior to this study, I believed that teachers could play a more intensive role in selecting and implementing what it is that students need—in this case, 21st-century skills and knowledge. I believed that even within a highly scripted and standardized curriculum, teachers could, with a little intention, bend their current curriculum to include concepts, themes, skills, and content outside their unit maps and pacing guides. However, what I understand now, much more intimately, thanks to the teachers' voices captured in this study, is that the powers of accountability are more pervasive and influential in dictating and demanding teachers' compliance than I previously understood. Fidelity to instruction; however, comes at a price. The cost: teacher autonomy, teacher creativity, student engagement, efficacy, and organic learning and assessments. The pressures of accountability have a dire impact on teacher morale and contribute to high teacher turnover and loss of professional culture, especially in schools serving low income and neighborhoods of color (Erichsen & Reynolds, 2018).

In light of this study and my own experiences as an administrator in a diverse school with a high number of students who qualify for free and reduced lunch, I cannot help but go back to a passage in Haberman's (2010) article, "The Pedagogy of Poverty," where he suggested:

...teacher burn out because of the emotional and physical energy they must expend to maintain their authority every hour of every day. The pedagogy of poverty requires that teachers who begin their careers intending to be helpers, models, guides, stimulators, and caring sources of encouragement transform themselves into directive authoritarians in order to function in urban schools. (p. 83)

I began this dissertation so many years ago wanting to deconstruct teachers' thinking and what it was about classroom teachers and their beliefs that kept them from implementing

21st-century skills and knowledge into their curriculum, as if they were the barriers to this work. What I have come away with is the reality that teachers, more times than not, are doing the best they can with what they have. If anything, educational leaders have not been responsive enough to create a culture that supports students and teachers in a way that leads to success for all, and this is simply not acceptable.

Through the process of heuristic inquiry, I learned more deeply the value of the human experience as it relates to the phenomenon. In this study, that was teachers' decisions in the pre-active phase of teaching to illuminate considerations they made for addressing 21st-century skills and knowledge to diverse learners. I am a better educator and building leader for the new understanding I developed of teachers' reasoning and thinking as they are planning for instruction. I am a better building leader for understanding the implications of the study and the impact these themes have on teacher morale and efficacy. I will take to heart what I have learned from the five participants who graciously agreed to let me peer into their thinking. I hope in some way I will be able to make a positive impact in this area for both teachers and students.

APPENDIX A

OBESERVATION PROTOCOL

Observation Date: _____
Observation Start/End Time: _____ Grade Observed: _____
Length of Observation: _____ Min. Subject Observed: _____
Participant Pseudo Name: _____ Number of Students: _____

Descriptive Notes	Reflective Notes
Activities	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected)
Classroom Environment: Climate	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretation. Identity of students , as well as any references to teacher interactions with students, will be protected.)
Teacher Instructional Behavior: Delivery of Instruction	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected)
Interactions of Teachers with Students	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected.)

Interactions of Students with other Students	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students and student to student interactions, will be protected)
Teacher comments: Expressed in quotes	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected)
Student comments: Expressed in quotes	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected)
Other relevant observations	(Reflective comments: Questions to self, observations of nonverbal behavior, my interpretations. Identity of students , as well as any references to teacher interactions with students, will be protected)

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

APPENDIX B

LESSON PLAN REFLECTION FORM

Topic:		Rate
Name:		
Grade Level:		
Subject:		
Date/Duration:		
<u>Standard/s:</u>		
<u>Learning Objective:</u>		
<u>Essential Questions:</u>		
<u>Assessment: Daily Demonstration of Learning:</u>		
<u>Instructional Strategies:</u>		
Partnership for 21st Century Skills Learning and Innovation Skills Describe how/if intentionally integrated.		
Collaboration		
Creativity		
Critical Thinking		
Communication		

Partnership for 21st Century Skills Framework (Circle if Present)		
21st Century Themes <ul style="list-style-type: none"> • Global Awareness • Financial, Economic, Business & Entrepreneurship Literacy • Civic Literacy • Health Literacy • Environmental Literacy 	Information, Media & Technology Skills <ul style="list-style-type: none"> • Information, Media & ICT Literacy 	Life & Career Skills <ul style="list-style-type: none"> • Flexibility & Adaptability • Initiative & Self-Direction • Social & Cross-Cultural Skills • Productivity & Accountability • Leadership & Responsibility
Rating:	Rating:	Rating:

Lesson Reflection:

1. Which elements of this lesson did you rate as the strongest? Why?

2. Which elements did you rate as the weakest? Why?

3. Of the 21st century skills and themes framework, how many of these concepts did you intentionally plan for during instruction? Please list.

4. If you answered 0-1 in questions #3, please list the barriers that you feel keep you for intentionally planning to integrate more elements from the 21st century framework into your instruction.

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

APPENDIX C

CONSENT FOR PARTICIPATION IN RESEARCH STUDY

A QUALITATIVE CASE STUDY DECONSTRUCTING TEACHERS' DECISIONS IN THE PRE-ACTIVE STAGE OF TEACHING TO ILLUMINATE CONSIDERATIONS MADE FOR TEACHING 21st-century SKILLS AND KNOWLEDGE

Co-Investigators:

Carl M. Calcara, M.A., Ed. S., Ed.D Candidate

carl.calcara@mail.umkc.edu

(816)335-5167

Loyce Caruthers, Ph. D.

caruthersl@umkc.edu

(816)235-1044

Request to Participate.

You are being asked to take part in a research study. This study is being conducted at the school in which you are employed. The researcher in charge of this study is Dr. Loyce Caruthers.

Research studies only include people who choose to take part. This document is called a consent form. Please read the consent carefully and take your time making your decision. The researcher will go over this consent form with you. Ask him to explain anything that you do not understand. Think about it and talk it over with your family and friends before you decide if you want to take part in this research study. This consent form explains what to expect: the risks, discomforts, and benefits, if any, if you consent to be in the study.

Background

You are being asked to participate in the is study because you meet the following requirements:

- Are a teacher with three or more years of teaching experience
- Have taught a core content area three or more years
- Currently hold a valid teaching certificate
- Teach in the general education setting

This study will capture teachers' intentions with regard to planning instruction that addresses 21st century skills and knowledge.

You will be one of five subjects at Raytown South Middle School.

Purpose

The purpose of this qualitative case study is to glean insight into teachers' decisions in the pre-active stage of teaching to illuminate the considerations they make to address 21st century skills and knowledge. The following central questions and sub-questions will be addressed:

- What intentional considerations do teachers make in the pre-active stage of teaching for meeting the needs of diverse learners?
 1. What teaching decisions do teachers make in the pre-active stage of teaching within the standardization movement.
 2. What considerations do teachers make in the pre-active stage of teaching for meeting the diverse needs of diverse learners?
 3. How do teachers plan for teaching 21st century knowledge and skills in the pre-active phase of instruction?

Procedures

If you decide to participate, you will be asked to participate in one one-on-one interview, one classroom observation, five days of lesson plan reflection, and one 30-minute group debrief session. The research will be collected and conducted on-site and will not require you to travel outside the building.

Individual Interview

- 20-30-minute semi-structured interview

Classroom Observation

- One 40-50-minute classroom observation utilizing observation protocol

Lesson Plan Reflection Form

- Reflection form will capture elements, thinking, and intentions of instructional strategies and content knowledge. Participants will be asked to submit one form per day for five days. Form will not require different or additional planning on the part of the teacher.

Group Debrief

- Discussion about the narrative developed from your interview, lesson plan reflections, and observations.

The interview and debrief sessions will be recorded and transcribed later for analysis. Audio recording is necessary to ensure the accurate documentation of the information provided by participants. Once interviews and debrief sessions are transcribed, all audio recordings will be destroyed.

The research will begin in September and will run for five consecutive days. If you agree to take part in this study, you will be involved in this study for five days with an additional hour of interviews.

Participation in this study is voluntary and subjects may refuse to participate in certain activities or answer certain questions. If you wish to withdraw from the study, you may do so at any time by contacting the study investigator.

Risks and Inconveniences

This research is considered to be minimal risk. That means the risks of taking part in this research study are not expected to be more than the risks in your daily life. There is a minimal risk of breach of confidentiality. To minimize this risk, the following steps will be used: all data sources will be de-identified with the use of pseudonyms, all interviews and debrief sessions will occur during and after the study. There are no other known risks to you if you chose to participate.

Benefits

There are no direct benefits to participating in this study. However, results for this study may influence teacher professional development and other educational reform efforts around pedagogy and 21st century teaching and learning.

Fees and Expenses

You will not incur any fees and expenses for participating in this study.

Compensation

There is no payment for participating in this study.

Alternatives to Study Participation

The alternative is to not take part in the study.

Confidentiality

While we will do our best to keep the information you share with us confidential, it cannot be absolutely guaranteed. Individuals from the University of Missouri-Kansas City Institutional Review Board (a committee that reviews and approves research studies), Research Protections Program, and Federal regulatory agencies may look at records related to this study to make sure we are doing proper, safe research and protecting human subjects. This results of this research may be published or presented to others. You will not be named in any reports of the results.

Information gathered through the interviews and observations will be stored under pseudonyms. The key identifying participants and their respective pseudonyms will be destroyed after the transcription of interviews, if not sooner. Only the study investigator will have access to the data sources. This information will be stored in a locked office at the School of Education at UMKC and on the UMKC and password protected computers of the study investigators. Any information written in the dissertation, papers, presentations or publications will use pseudonyms to de-identify participants in the study. If a subject withdraws before the study ends, the data collected will be kept and possibly used to inform study findings.

The University of Missouri-Kansas City appreciates people who help gain knowledge by being in research studies. It is not the University's policy to pay for or provide medical

treatments for persons who are in studies. If you think you have been harmed because you were in this study, please call one of the researchers, Mr. Carl M. Calcara at (816)335-5167 or Dr. Loyce Caruthers at (816)235-1044.

Contacts for Questions about the Study

You should contact the Office of UMKC’s Institutional Review Board at (816)235-5927 if you have any questions, concerns or complaints about your rights as a research subject. You may call the researchers, Mr. Carl M. Calcara at (816)335-5167 or Dr. Loyce Caruthers at (816)235-1044, if you have any questions about this study. You may also call either researcher if any problems come up or to obtain information about research participant’s rights, contact the UMKC Institutional Review Board (IRB) Office

- Phone: (816) 235-5927
- Email: umkcirb@umkc.edu

Voluntary Participation

Taking part in this research study is voluntary. If you choose to be in the study, you are free to stop participating at any time for any reason. If you choose not to be in the study or decide to stop participating, your decision will not affect any care or benefits you are entitled to. The researchers, doctors or sponsors may stop the study or take you out of the study at any time if they decide that it is in your best interest to do so. They may do this for medical or administrative reasons of if you no longer meet the study criteria. You will be told of any important findings developed during the course of this research.

You have read this Consent Form or it has been read to you. You have been told why this research is being done and what will happen if you take part in the study, including the risks and benefits. You have the chance to ask questions and you may ask questions at any time in the future by calling Mr. Carl M. Calcara at (816)335-5167 or Dr. Loyce Caruthers at (816)235-1044. You volunteer and consent to take part in this research study. At any time, you can discontinue your participation in the study.

Signature (Volunteer Subject)

Date

Printed Name (Volunteer Subject)

Signature (Authorized Consenting Party)

Date

Printed Name (Authorized Consenting Party)

Relationship of Authorized Consenting Party to Subject

Signature of Person Obtaining Consent

Date

Printed Name of Person Obtaining Consent

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

APPENDIX D

INTERVIEW PROTOCOL

Thank you for taking the time to meet with me today. I know there are many demands on educators and I appreciate your willingness to participate in this qualitative case study. The purpose of this study is to illuminate considerations teachers' make in the pre-active stage of teaching for addressing 21st century skills and knowledge. Remember, your participation is voluntary and that you may withdraw at any time with absolutely no consequences. I will be taking some notes as we talk. If at any time during this interview you wish to discontinue the use of the recorder or the interview itself, please feel free to let me know. Everything will be kept confidential in that your responses will be credited to a pseudonym of your choosing. When I ask questions, I will only refer to you with the pseudonym that you have selected. This interview is being recorded and will be transcribed at a later date. I want you to feel free to talk at a normal pace without interruption. Please remember that all responses will be anonymous.

Interview Questions

1. How many years have you been teaching?
2. What subject/s do you currently teach?
3. How many years have you taught in an urban school or school with urban characteristics?
4. How much time per week do you spend planning for instruction?
5. Describe your understanding of the three stages of instruction: pre-active, active, and post-active.
6. You reviewed the Partnership for 21st century skills and knowledge framework prior to this interview. How was this framework similar to different to your understanding of 21st century skills and knowledge?
7. Of the skills and knowledge components listed in the 21st century framework, which of those do you consider to be most important for students? Why?
8. Of the skills and knowledge components listed in the 21st century framework, how often do you plan to incorporate any of those into your lessons? Frequently, sometimes, infrequently, never?
9. If your answer is infrequently or never, what factors keep you from doing so?

10. What considerations do you make in the pre-active stage of teaching for meeting the diverse needs of diverse learners?

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

APPENDIX E

GROUP INTERVIEW PROTOCOL

Thank you for agreeing to meet as a group and debrief about not only your involvement and participation in this study, but to review the findings and make any further comments and/or recommendations. Remember, your participation is voluntary and you may withdraw at any time with absolutely no consequences. Although you will clearly know the other participants in this study after this group interview, it is assumed that participants will respect the privacy of other participants and keep their involvement private. I will be taking notes as we talk. If at any time during this group interview you wish to discontinue the use of the recorder or the interview itself, please feel free to let me know. Everything will be kept confidential in that your responses will be credited to a pseudonym of your choosing. When I ask questions, I will only refer to you with the pseudonym that you have selected. This interview is being recorded and will be transcribed at a later date. I want you to feel free to talk at a normal pace without interruption. Please remember that all responses will be anonymous.

1. You were given a copy of the findings prior to this interview. What was your initial reaction to the findings presented?
2. Did these findings confirm or challenge your assumptions about teachers' intentions with regard to integrating 21st century skills and knowledge in their instruction?
3. Do you feel you have altered any teaching practices or beliefs after participating in this study? If so, please describe.
4. Are there other recommendations based on the findings or purpose of this study that you'd like to add?

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

REFERENCES

- ACT National Profile Report. (2015, July 1). Retrieved from <http://www.act.org/content/ACT-National-Profile-Report-2015.pdf>
- Adorno, T. (2000). *Introduction to sociology*. Stanford, CA: Polity.
- Alexander, K.L., Entwisle, D., & Olson, L. (2014). *The long shadow: Family background, disadvantaged urban youth, and the transition to adulthood*. New York, NY: Russell Sage Foundation.
- Alismail, A.H., & McGuire, P. (2015). 21st century standards and curriculum: Current research and practice. *Journal of Education and Practice*, 6(6),150–154.
- Alsbury, T.L. (2008). *The future of school board governance: Relevancy and revelation*. Blue Ridge Summit, PA: Rowman and Littlefield Education.
- Anderson, J. (1992). Leadership and training programs for educational improvement. In H. Waxman, J. W. de Felix, J. Anderson, & P. Baptist, Jr. (Eds.), *Students in at risk schools: Improving environments for learning* (pp. 137-142). Newbury Park, CA: Corwin Press.
- Anderson, J.D. (1988). *The education of blacks in the South, 1860-1935*. Chapel Hill: The University of North Carolina Press.
- Anyon, J. (2005). *Radical possibilities: Public policy, urban education, and a new social movement*. New York, NY: Routledge.
- Ask Teaching Tolerance: What are my rights and responsibilities as an educator confronting racism in my school [Editorial]. (2019, Fall). *Teaching Tolerance*, 63, 9.
- Astiz, M.F., Wiseman, A., & Baker, D. (2002). Slouching toward decentralization: Consequences of globalization and other curricular control in national education systems. *Comparative Education Review*, 46, 66–88.
- ATCS-Assessment and teaching of 21st century skills. (2012). Retrieved from <http://www.atc21s.org/>
- Attanasio, O.P. (2015). The determinants of human capital formation during the early years of life: Theory, measurement and policies. *Journal of the European Economic Association*, 13, 949–997.
- Au, W. (2019) Racial justice is not a choice: White supremacy, high stakes testing, and the punishment of Black and Brown students. *Rethinking Schools*, 39(4), 34–41.

- Bartlett, L., Kupecynski, L., & Holland, G. (2011). Impact of school reform on dropout rates and test scores in an urban high school. *Contemporary Issues in Education Research, 4*(11), 1–11.
- Bashir, M., & Bennett, D. (2000). *Deeper dimensions: Culture, youth, and mental health*. Culture and mental health. Parramatta, Australia: Transcultural Mental Health Center.
- Baum, H.S. (2002). Why school systems resist reform: A psychoanalytical perspective. *Human Relations, 55*(2), 173–198.
- Beaulieu, D. (2008). Native American education research and policy development in an era of No Child Left Behind: Native languages and culture during the administrations of President Clinton and Bush. *Journal of American Indian Education, 47*, 1.
- Beaulieu, D., Sparks, L., & Alonzo, M. (2005). *Preliminary report on No Child Left Behind in Indian country*. Washington, DC: National Indian Association.
- Bell, D. (2004). *Silence covenants: Brown v. Board of Education and the unfulfilled hopes for racial reform*. Oxford, UK: Oxford University Press.
- Bella Vista Middle School. (2017). *School profile data*. Department of Elementary and Secondary Education.
- Berg, B.L. (2004). *Qualitative research methods for the social sciences*. Boston, MA: Pearson.
- Berkovich, I. (2011). No we won't! Teachers' resistance to educational reform. *Journal of Educational Administration, 49*(5), 563–578.
- Berliner, D.C. (2009). *Poverty and potential: Out-of-school factors and school success*. Boulder, CO: Education and Public Interest Center and Educational Policy Research Unit.
- Bertram, V. (2017). *Dream differently*. Washington, DC: Regnery.
- Bill & Melinda Gates Foundation. (2011). High schools for the new millennium. Retrieved from <http://www.gatesfoundation.org/UnitedStates/Education/TransformingHig>
- Bjork, L.G., & Blasé, J. (2009). The micropolitics of school district decentralization. *Educational Assessment, Evaluation and Accountability, 21*(3), 195–208.
- Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Pearson.

- Bok, D. (2006). *Our underachieving colleges: A candid look at how much students learn and why they should be learning more*. Princeton, NJ: Princeton University Press.
- Boni, A., & Calabuig, C. (2015). Education for the global citizenship at universities: Potentialities of formal and informal learning spaces to foster cosmopolitanism. *Journal of Studies in International Education*. doi: /10.1177%2F1028315315602926
- Booker, K., Gill, B., Zimmer, R., & Sass, T. (2009). *Achievement and attainment in Chicago charter schools*. Santa Monica, CA: The Rand Corporation.
- Borko, H., Shavelson, R.J., & Stern, P. (1981). Teachers' decisions in the planning of reading instruction. *Reading Educational Research Journal*, 7(1), 51–57.
- Boschman, F., McKenny, S., & Voogt, J. (2014). Understanding decision making in teachers' curriculum design approaches. *Education Tech Research Development*, 62, 393–416. doi:10.1007/s11423-014-9341-x
- Bracey, G.W. (2005). No Child Left Behind: Where does the money go? *Education Policy Research Unit*. Tempe: Arizona State University.
- Brit, S., & Teele, S. (2008). *Professionalism under siege: Teachers' views of NCLB*. New York, NY: Routledge.
- Brown, C.P., & Weber, B.N. (2016). Struggling to overcome the state's prescriptions for practice: A study of a sample of early educators' professional development and action research projects in a high-stakes teaching context. *Journal of Teacher Education*, 67(3), 183–202. doi: 10.1177/0022487116636452
- Bryan, L., & Atwater, M. (2002). Teacher beliefs and cultural models: A challenge for science teacher preparation programs. *Science Education*, 86, 821–839.
- Bryk, A. & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York, NY: Russell Sage Foundation.
- Burbules, N.C., & Torres, C.A. (2000). *Globalization and education: An introduction*. Globalization and Education: Critical Perspectives. Retrieved from <http://faculty.ed.uiuc.edu/burbules/papers/global.html>
- Byra, M., & Sherman, M.A. (1993). Preactive and interactive decision-making tendencies of less and more experienced preservice teachers. *Research Quarterly for Exercise and Sport*, 64(1), 46–55.
- Cain, S., & Laird, M. (2011). *Fundamental 5: The formula for quality instruction*. Createspace Independent Publishing.

- Calderhead, J. (1981). A psychological approach to research on teachers' classroom decision-making. *British Educational Research Journal*, 7(1), 51–57.
- Callahan, R.E. (1962). *Education and the cult of efficiency*. Chicago, IL: The University Chicago Press.
- Carter, P.L., & Welner, K.G. (2013). *Closing the opportunity gap: What American must do to give every child an even chance*. New York, NY: Oxford University Press.
- Caruthers, L.E. (2007). The soil of silence. Deconstructing socio-cultural and historical processes that have influenced schooling for First Nations people and African Americans. *American Educational History Journal*, 34(2), 303–313.
- Caruthers, L.E., & Davis, D.M. (2006). Meetings at the crossroads: The education of ex-slaves and the challenges of third generation of school desegregation. *American Educational History Journal*, 33(2), 79–88.
- Caruthers, L.E., & Friend, J. I. (2016). *Great expectations: What kids want from our urban public schools*. Charlotte, NC: Information Age Publishing.
- Caruthers, L.E., & Poos, B. (2015). Narratives of Lincoln High School African American graduates in Kansas City, Missouri: 1955 to 1985. *Journal of Black Studies*, 46(6), 626–649.
- Chapman, T. (2008). Desegregation and multicultural education: Teachers embracing and manipulating reforms. *Urban Review*, 40, 42–63. doi: 10.1007/s11256-007-0076-4
- Clothey, R., Mills, M., & Baumgarten, J. (2010). A closer look at the impact of globalization on science education. *Cultural Studies of Science Education*, 5, 305–313. doi: 10.1007/s11422-010-9258-6
- Cookson, P.W. (2009). What would Socrates say? *Educational Leadership*, 8–14.
- Creswell, J. (2013). *Qualitative inquiry and research design*. Thousand Oaks, CA: Sage.
- Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.
- CSAI Report. (2016, September). *High school graduation requirements in a time of college and career readiness*. Retrieved from <https://www.csai-online.org/spotlight/csai-reports-and-updates>
- Cuban, L. (1988). A fundamental puzzle of school reform. *Phi Delta Kappan*, 69(5), 341–344.

- Cubberley, E.P. (1929). *Public school administration* (rev. ed.). Boston, MA: Houghton Mifflin.
- Cunha, F., & Heckman, J.J. (2008). Formulating, identifying and estimating the technology of cognitive and noncognitive skill formation. *The Journal of Human Resources*, 43(4), 738–782.
- Dane, E., & Pratt, M.G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, 32, 33–54.
- Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teacher's College, Columbia University.
- Darling-Hammond, L., & Adamson, F. (2015). *Beyond the bubble: How performance assessments support 21st century learning*. San Francisco, CA: Jossey-Bass.
- David, J.L. (2008). What research says about pacing guides. *Educational Leadership*, 66, 87–88.
- Davidson, P. (2011). The role of technology in transforming higher education. *Journal of Leadership Studies*, 4, 50. doi:10.1002/jls.20192
- Davis, E.A., Beyer, C., Forbes, C.T., & Stevens, S. (2011). Understanding pedagogical design capacity through teachers' narratives. *Teaching and Teacher Education*, 27(4), 797–810. doi: 10.1016/j.tate.2011.01.005
- Declaration of Independence: A Transcript. (2019). National Archives. Retrieved from <https://www.archives.gov/founding-docs/declaration-transcript>
- de Silva, R.M., Gleditsch, R., Job, C., Jesme, S., Urness, B., & Hunter, C. (2018). Gloria Ladson-Billings: Igniting student learning through teacher engagement in culturally relevant pedagogy. *Multicultural Education*, 25(3/4), 23–28.
- Diamond, J.B. (2007). Where the rubber meets the road: Rethinking the connection between high stakes accountability policy and classroom instruction. *Sociology of Education*, 80, 285–313.
- Diamond, J.B. (2012). Accountability policy, school organization, and classroom practice: Partial recoupling and educational opportunity. *Education and Urban Society*, 44(2), 151–182. doi:10.1177/0013124511431569
- Diamond, J.B., & Spillane, J.P. (2004). High-stakes accountability in urban elementary schools: Challenging or reproducing inequality? *Teacher College Record*, 106(6), 1145–1176.

- Dillon, N. (2007). Educating generation Z. *American School Board Journal*, 35–37.
- Douglas, B., & Moustakas, C. (1985). Heuristic inquiry: The internal search to know [Electronic version]. *Journal of Humanistic Psychology*, 25(3), 39–55.
- Duffy, F.N. (2003). I think therefore I am resistant to change. *Journal of Staff Development*, 24(1). Retrieved from <http://www.nsd.org/library/publications/jsd/duffy241.cfm>
- Duncan, A. (2006). Chicago's renaissance 2010: Building on school reform in the age of accountability. *Phi Delta Kappan*, 87(6), 457–458.
- Duran, E., Yaussy, D., & Yaussy, L. (2011). Race to the future: Integrating 21st century skills into science instruction. *Science Activities*, 48(3), 98–106.
- Duschl, R.A., & Wright, E. (2006). A case of high school teachers' decision making models for planning and teaching science. *Journal of Research in Science Teaching*, 26(6), 467–501.
- Early, D.M., Rogge, R.D., & Deci, E.L. (2014). Engagement, alignment, and rigor as vital signs of high-quality instruction: A classroom visit protocol for instructional improvement and research. *The High School Journal*, 219–238.
- Ellingson, L.L. (2009). *Engaging crystallization in qualitative research: An introduction*. Thousand Oaks, CA: Sage.
- Ellis, C. (1994). A remedy for barbarism: Indian schools, the civilizing program, and the Kiowa-Comanche-Apache reservation, 1871–1915. *American Indian Culture and Research Journal*, 18(3), 85–120.
- Ellis, K. (2004). *Exemplars of curriculum theory: Eye on education*. New York, NY: Guilford Press.
- Englert, C.S., & Semel, M.I. (2001). Spontaneous teacher decision making in interactive instructional contexts. *Journal of Educational Research*, 77(2), 112–121.
- Envision. (2018). *13 essential skills for 21st century learning*. (2018). Retrieved from <https://www.envisionexperience.com/blog/13-essential-21st-century-skills-for-todays-students>
- Epstein, S. (2010). Demystifying intuition: What it is, what it does, and how it does it. *Psychological Inquiry*, 21(4), 295–312.
- Erichsen, K., & Reynolds, J. (2018). Public school accountability, workplace culture, and teacher morale. *Social Science Research*. 85, 102347. doi: 10.1016/j.ssresearch.2019.102347

- Faulkner, J., & Latham, G. (2016). Adventurous lives: Teacher qualities for the 21st century learning. *Australian Journal of Teacher Education*, 41(4). Retrieved from <http://ro.ecu.edu.au/ajte/vol41/iss4/9>
- Ferguson, D.L. (2008). International trends in inclusive education: The continuing challenge to teach each one and everyone. *European Journal of Special Needs Education*, 23, 109–120.
- Fierros, E.G., & Blomberg, N.A. (2005). Restrictiveness and race in special education placements in for-profit and non-profit charter school in California. *Learning Disabilities: A Contemporary Journal*, 3(1), 1–16.
- Ford, D.Y. (2011). *Reversing underachievement among gifted black students: Theory, research and practice* (2nd ed.). Waco, TX: Prufrock Press.
- Frankel, J.R., & Wallen, N.E. (2003). *How to design and evaluate research in education*. New York, NY: McGraw-Hill.
- Frankel, J.R., Wallen, N.E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). New York, NY: McGraw Hill.
- Freeman, J., Sugai, G., Simonsen, B., & Everett, S. (2017). MTSS coaching: Bridging knowing to doing. *Theory Into Practice*, 56, 29–37. doi:10.1080/00405841.2016.1241946
- Freire, P. (2005). *Pedagogy of indignation*. Herndon, VA: Paradigm.
- Friedman, T.L. (2016). *Thank you for being late: An optimist's guide to thriving in the age of accelerations*. New York, NY: Farrar, Straus and Giroux.
- Fullan, M. (2001). *The new meaning of educational change*. New York, NY: Routledge.
- Furman, G. (2012). Social justice leadership as praxis: Developing capacities through preparation programs. *Educational Administration Quarterly*, 48, 191–229. doi: 10.1177/0013161X11427394
- Garrison, M.J. (2009). *A measure of failure: The political origins of standardized testing*. Albany, NY: State University of New York Press.
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.) New York, NY: Teachers College Press.
- Gay, G. (2015, October 3). *Reflections and projections on multicultural education*. Speech presented at the National Association of Multicultural Education Annual Conference, New Orleans.

- Geertz, C. (1973). *The interpretation of cultures: Selected essays* (Vol. 5019). New York, NY: Basic Books.
- Gill, M.G., & Hoffman, B. (2009). Shared planning time: A novel context for studying teachers' discourse and beliefs about learning and instruction. *Teacher College Record*, *111*(5), 1242–1273.
- Gill, W.W.A. (2011). Middle school A/B block and traditional scheduling: An analysis of math and reading performance by race. *NASSP Bulletin*, *95*(4), 281–301.
- Giroux, H.A. (2013). Neoliberalism's war against teachers in dark times. *Cultural Studies*, *13*(6), 458–468. doi:10.1177/1532708613503769
- Giroux, H.A. (2016). *Against the terror of neoliberalism: Politics beyond the age of greed*. New York, NY: Routledge.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*. Retrieved from <http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf>
- Golding, C. (2011). The many faces of constructivist discussion. *Educational Philosophy and Theory*, *43*(5), 467–483. doi: 10.1111/j.1469-5812.2008.00481.x
- González, N., & Moll, L. (2002). Building bridges to fund of knowledge. *Educational Policy*, *16*, 623–641. doi:10.1177/0895904802016004009
- González, N., Moll, L.C., & Amanti, C. (2005). *Funds of knowledge: Theorizing practices in households, communities, and classrooms*. Mahwah, NJ: Routledge. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=nlebk&AN=158539&site=eds-live&scope=site>
- Gorlewski, J.A. (2013). *Left behind in the race to the top: Realities of school reform*. Charlotte, NC: Information Age Publishing.
- Gorski, P. (2016). Rethinking the role of “culture” in educational equity: From cultural competence to equity literacy. *Multicultural Perspectives*, *18*(4), 221–226.
- Grbich, C. (2013). *Qualitative data analysis: An introduction* (2nd ed.). Thousand Oaks, CA: Sage.
- Green, T.L., & Gooden, M.A. (2014). Transforming out-of-school challenges into opportunities: Community school reform in the urban Midwest. *Urban Education* *49*(8), 930–954.

- Griffin, P. (2013). Old school or new school? Teach future skills and traditional subjects together. *The Conversation*. Retrieved from <http://theconversation.com/old-school-or-new-school-teach-future-skills-and-traditional-subjects-together-18179>
- Griffith, R. (2014). Using guided writing conferences to guide teaching decisions during interactive writing. *Journal of Reading Education, 39*(3), 14–21.
- Griffith, R., & Groulx, J. (2014). Profile for teacher decision making: A closer look at beliefs and practice. *Journal of Research in Education, 24*(2), 103–115.
- Griffith, R., Massey, D., & Atkinson, T. (2013). Examining the forces that guide teaching decision making. *Journal of Teacher Education, 27*, 221–223.
- Gun, B. (2014). Making sense of experienced teachers' interactive decisions: Implications for expertise in teaching. *International Journal of Instruction, 7*(1), 75–88.
- Gutierrez, K., Asato, J., Santos, M., & Gotanda, N. (2002). Backlash pedagogy: Language and culture and the politics of reform. *The Review of Education, Pedagogy, and Cultural Studies, 24*, 335–351.
- Haberman, M. (2010). The pedagogy of poverty versus good teaching. *Phi Delta Kappan, 92*(2), 81–87. Retrieved from <http://www.kappanmagazine.org>
- Hancock, B., Ockleford, E., & Windredge, K. (2009). *An introduction to qualitative research*. Nottingham, UK: University of Nottingham.
- Hardy, L. (2008). The skill set: What do graduates need to be successful in the 21st century. *American School Board Journal, 17*–25.
- Harris, D.M. (2012). Postscript: Urban schools, accountability, and equity: Insights regarding NCLB and reform. *Education and Urban Society, 44*(2) 203–210.
- Harteis, C., Kock, T., & Morgenthaler, B. (2008). How intuition contributes to high performance: An educational perspective. *Education Review, 5*(1), 68–80.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. New York, NY: Routledge Taylor and Francis Group.
- Hattie, J.A.C. (2003). *Teachers make a difference: What is the research evidence?* Paper presented at the Building Teacher Quality: What does the research tell us? ACER Research Conference, Melbourne, Australia. Retrieved from http://research.acer.edu.au/research_conference_2003/4/
- Heck, R.H. (2004). *Studying educational and social policy*. NJ: Lawrence Erlbaum Associates.

- Heckman, J.J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. *Journal of Labor Economics*, 24(3), 411–482.
- Hedges, L.V., Laine, R.D., & Greenwald, R. (1994). Does money matter? A meta analysis of studies of the effects of differential school inputs on student outcomes. *Educational Researcher*, 23(3), 5–14.
- Herrington, J., & Kervin, L. (2007). Authentic learning supported by technology: 10 suggestions and cases of integration in classroom. *Educational Media International*, 44(3), 219–236.
- Hersh, H.R. (2009). A well-rounded education for a flat world. *Educational Leadership*, 67(1), 50–53.
- Hess, D. (2009). *Controversy in the classroom: The democratic power of discussion*. New York, NY: Routledge.
- Horn, J.L., & McArdle, J.J. (1992). A practical and theoretical guide to measurement invariance in aging research. *Experimental Aging Research*, 18(3), 117–144. doi:10.1080/03610739208253916
- Horsford, S.D. (2010). Re-imagining educational leadership: New theoretical perspectives and contextual considerations in the field. In S. Horsford (Ed.), *New perspectives in educational leadership: Exploring social, political, and community contexts and meaning* (pp. 1-4). New York, NY: Peter Lang.
- Hoy, W.K., & Sweetland, S.R. (2001). Designing better schools: The meaning and nature of enabling school structure. *Educational Administration Quarterly*, 37, 296–321.
- Huber, G.L. (2003). Processes of decision-making in small learning groups. *Learning and Instruction*, 13(3), 255–269.
- Hulpia, H., Devos, G., & Van Keer, H. (2011). The relationship between school leadership from distributed perspectives and teachers' organizational commitment: Examining the source of leadership education. *Educational Administration Quarterly*, 47(5), 728–771.
- Hunzicker, J. (2004). The beliefs-behavior connection: Leading toward change. *Principal*. Retrieved from F:\Ed.D proposal Sources\The Beliefs-Behavior Connection.htm
- Ibarraran, P., Ripani, L., Tabooda, B., Villa, J.M., & Garcia, B. (2014). Life skills, employability and training for the disadvantaged youth: Evidence from randomized evaluation design. *IZA Journal of Labor and Development*, 3, 1–24.

- Ingersoll, R.M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499–534.
- Inglis, J.D., & Lucas, N.D. (1976). The elementary school teacher and instructional decision making. *Journal of Teacher Education*, 27, 221–223.
- International Literacy Association. (2019). Retrieved from <https://www.literacyworldwide.org/>
- Iowa Core 21st Century Skills. (2010). Retrieved from https://iowacore.gov/sites/default/files/k-12_21stcentskills.pdf
- Jackson, A. (2009). New middle schools for new futures. *Middle School Journal*, 6-10.
- Jagannathan, R., Camasso, M.J., & Delacalle, M. (2019). Promoting cognitive and soft skills acquisition in a disadvantaged public system: Evidence from the nurture thru nature randomized experiment. *Economics of Education Review*, 70, 173–191. doi: 10.1016/j.econedurev.2019.04.005
- Jensen, E. (2009). *Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Jilke, S., Petrovsky, N., Meulman, B., & James, O. (2017). Measurement equivalence in replications of experiments: When and why it matters and guidance on how to determine equivalence. *Public Management Review*, 19(9), 1293–1310.
- Johnson, C.C., Bolshakova, V.L., & Waldron, T. (2016). When good intentions and reality meet: Large-scale reform of science teaching in urban schools with predominantly Latino ELL students. *Urban Education*, 51(5), 476–513.
- Johnson, C.C., Kahle, J.B., & Fargo, J.D. (2007). A study of the effect of sustained, whole-school professional development on student achievement in science. *Journal of Research in Science Teaching*, 44, 775–786.
- Jorgenson, O. (2006, Summer). Why curriculum change is difficult and necessary. *National Association of Independent Schools*. Retrieved from <https://www.nais.org/magazine/independent-school/summer-2006/why-curriculum-change-is-difficult-and-necessary/>
- Joyce, B., Bruce, J., Weil, M., & Calhoun, E. (2009). *Models of teaching*. Boston, MA: Pearson/Allyn and Bacon.
- Kahneman, D. (2002, December 8). *Maps of bounded rationality: A perspective on intuitive judgement and choice*. A Nobel prize lecture. Retrieved from http://nobelprize.org/nobel_prizes/economics/laureates/2002/kahneman-lecture.pdf

- Kahneman, D., & Fredrick, S. (2005). A model of heuristic judgment. In K.J. Holyoak & R.G. Morrison (Eds.), *Cambridge handbook of thinking and reasoning* (pp. 267-293). Cambridge, UK: Cambridge University Press.
- Kamenetz, A. (2016, April). Most high school seniors aren't college or career ready, says nations report card. *NPR*. Retrieved from <http://www.npr.org/sections/ed/2016/04/27/4756282/>
- Kelly, J.A. (2004). Teaching the world: A new requirement for teacher preparation. *Phi Delta Kappan*, 86, 219–221.
- Kilinc, A.C. (2016). The relationship between bureaucratic school structures and teacher self efficacy. *McGill Journal of Education*, 51(1). Retrieved from <https://mje.mcgill.ca/article/view/9139/7094>
- Kim, E. (2011). Conceptions, critiques, and challenges in multicultural education: Informing teacher education reform in the U.S. *KEDI Journal of Educational Policy*, 8(2), 201. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=edo&AN=70313641&site=eds-live&scope=site>
- Kise, A.J. (2006). *Differentiated coaching: a framework for helping teachers change*. Thousand Oaks, CA: Corwin Press.
- Knowlton, D. (2003). Preparing students for educated living: Virtues of problem-based learning across the higher education curriculum. *New Directions for Teaching and Learning*, 24(95), 5–12.
- Kohler, F., Henning, J.E., & Usma-Wilches, J. (2008). Preparing preservice teachers to make instructional decisions: An examination of data from the teacher. *Teaching and Teacher Education*, 24(8), 2108–2117.
- Kohn, A. (2003). What does it mean to be well educated? *Principal Leadership*. Retrieved from <http://www.alfiekohn.org/teaching/welleducated.htm>
- Kozol, J. (2005). The shame of the nation: *The restoration of apartheid schooling in America*. New York, NY: Crown Publishing.
- Kumashiro, K. (2000). Toward a theory of anti-oppressive education. *Review of Educational Research*, 70(1), 25–53.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

- Ladd, H.F. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation Policy Analysis*, 33, 235–261.
- Ladson-Billings, G. (2000). Fighting for our lives: Preparing teachers to teach African American students. *Journal of Teacher Education*, 51(3) 206–214.
- Ladson-Billings, G. (2006). Yes, but how do we do it? Practicing culturally relevant pedagogy. *Teachers College Record*, 97(1), 47–68.
- Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Lambert, R., & McCarthy, C. (2006). *Understanding teacher stress in an age of accountability*. Greenwich, CT: IAP Press.
- Laverty, S. (2003). Hermeneutic phenomenology and phenomenology: A comparison of 238 historical methodological considerations. *International Journal of Qualitative Methods*, 2(3). Retrieved from http://www.ualberta.ca/~iiqm/backissues/2_3final/pdf/laverty.pdf
- Lavigne, A.L. (2014). Exploring the intended and unintended consequences of high-stakes teacher evaluation on schools, teachers, and students. *Teacher College Record*, 116, 1–29.
- Leithwood, K., Seashore-Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. Center for Applied Research and Educational Improvement, University of Minnesota. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/How-Leadership-Influences-Student-Learning.pdf>
- Lew, A. (2004) From votes to dialogues: Clarifying the role of teachers' voices in school renewal. *Phi Delta Kappan*, 86, 318.
- Ma, X., & MacMillan, R.B. (1999). Influences of workplace conditions on teachers' job satisfaction. *Journal of Education Research*, 93, 39–47.
- Mack, N., Woodsong, C., MacQueen, K.M., Guest, G., & Namey, E. (2005). *Qualitative research methods: A data collector's field guide*. Arlington, VA: Family Health International.
- Maloch, B., Flint, A.S., Eldridge, D., Harmon, J., Loven, R., Fine, J.C.,...Martinez, M. (2003). Understandings, beliefs, and reported decision making of first-year teachers from different reading teacher preparation programs. *The Elementary School Journal*, 103(5), 431–457.

- Manufacturing Institute. (2016). *Manufacturing jobs over the next decade*. Retrieved from <http://www.themanufacturinginstitute.org/Research/Other-Institute-Reports/~media/24ECD17A43324F7696BF758A9A116B6F.ashx>
- Martella, R.C., & Merchand-Martella, N.E. (2015). Improving classroom behavior through effective instruction: An illustrative program example using SRA FLEX Literacy. *Education and Treatment of Children, 38*(2), 241–272.
- Martinez, E., & Pilgrim, J. (2015). Literacy terminology and technology integration for 21st century teaching: A survey of educators. *Journal of Reading Education, 40*(3), 9–16.
- Maxwell, J.A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: Sage.
- Mayer, A.P., Donaldson, M.L., LeChasseur, K., Welton, A.D., & Casey, D.C. (2013). Negotiating site-based management and expanded teacher decision making: A case study of six urban schools. *Educational Administration Quarterly, 49*(5), 695–731.
- McCarty, H. (1993). From deadwood to greenwood: Working with burned out staff. *Journal of Staff Development, 14*(1), 42–46.
- McGuire, C.K., & Ikpa, V.W. (2008). *Policy, leadership, and student achievement: Implications for urban communities*. Charlotte, NC: Information Age Publishing.
- McIntyre, E., Rosebery, A., & González, N. (2001). *Classroom diversity. Connecting curriculum to students' lives*. Portsmouth, NH: Heinemann.
- McMillan, J.H. (2003). Understanding and improving teachers' classroom assessment decision making: Implications for theory and practice. *Educational Measurement: Issues and Practice, 22*(4), 34–43.
- Merriam, S.B. (2009). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Micklethwait, J. (2016). The message of Thomas Friedman's new book: It's going to be o.k. *New York Times*. Retrieved from <https://nyl.ms/2f1MSL4>
- Miles, M.B., & Huberman, A.M. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Miles, M.B., Huberman, A.M., & Saldaña, J. (2013). *Qualitative data analysis: A methods source book*. Thousand Oaks, CA: Sage.
- Miles, M.B., Huberman, A.M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage.

- Miller, J. M., & Alvarado, K. (2005). Incorporating documents into qualitative nursing research. *Journal of Nursing Scholarship*, 37(4), 348–353.
- Miller, P.M., Brown, T., & Hopson, R. (2011). Centering love, hope, and trust in the community: Transformative urban leadership informed by Paulo Freire. *Urban Education*, 46, 1078–1099.
- Milner, R. (2013). Analyzing poverty, learning and teaching through a critical race lens. *Review of Research in Education*, 37, 1–53.
- Mora, R., & Christianakis, M. (2013). *Missing the mark: Neoliberalism and the unwarranted rise of charter schools*. Charlotte, NC: Information Age Publishing.
- Moustakas, C. (1990). *Heuristic research design, methodology, and application*. Newbury Park, CA: Sage.
- Moxley, J.A., Anders, E.K., Charness, N., & Ralf, K.T. (2012). The role of intuition and deliberative thinking in experts' superior tactical decision-making. *Cognition*, 124, 72–78. doi: 10.1016/j.cognition.2012.03.005
- National Center on Education and the Economy. (2008). *Tough choices or tough times: The report of the New Commission on the Skills of the American Workforce*. San Francisco, CA: Jossey-Bass.
- National Center for Educational Statistics. (2015). *The nation's report card: 2015 mathematics and reading assessment*. Retrieved from <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015136>
- National Center for Educational Statistics. (2016). *The condition of education*. Retrieved from <https://nces.ed.gov/pubs2016/2016144.pdf>
- National Center for Educational Statistics. (2019). *Young adults neither enrolled in school nor working*. Retrieved from https://nces.ed.gov/programs/coe/indicator_col.asp
- National Center for Educational Statistics, The NCES Common Core of Data (CCD). (2007). *Public elementary/secondary school universe survey 1993-94, 2000-01 and 2003-04*. Washington, DC: U.S. Department of Education.
- Nehring, J. (2009). *The practice of school reform*. New York, NY: State University of New York Press.
- Neuman, S.B. (2016). Code red: the danger of data-driven instruction. *Educational Leadership*, 74(3), 24–29.
- Nevo, D. (1995). *School-based evaluation. A dialogue for school improvement*. Oxford, UK: Pergamon Press.

- NVivo 12 Qualitative Data Analysis Software. (2019). QSR International. Retrieved from <https://www.qsrinternational.com/nvivo/system/search>
- Noddings, N. (1997). *A morally defensible mission for school in the 21st century*. New York, NY: Teachers College Press.
- Noddings, N. (2006). *Critical lessons: What our schools should teach*. New York, NY: Cambridge University Press.
- Noguera, P., & Wells, L. (2011). The politics of school reform: A broader and bolder approach for Newmark. *Berkley Review of Education*, 2, 5–25.
- Ogawa, R.T., Sandholtz, J.H., Martinez-Flores, M., & Scribner, S.P. (2003). The substantive and symbolic consequences of a district's standards-based curriculum. *American Educational Research Journal*, 40(1), 147–176.
- Organization for Economic Cooperation and Development. (2018). *Education at a glance 2018: OECD indicators*. doi: 10.1787/eag-2018-en
- P21: Partnership for 21st Century Learning. (2019). *Framework for 21st century learning*. Retrieved from <http://www.battelleforkids.org/networks/p21/frameworks-resources>
- Pardo del Val, M., & Fuentes, M.C. (2003). Resistance to change: A literature review and empirical study. *Management Decision*, 41(2), 148–155.
- Paris, D., & Alim, H. (2014). What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward. *Harvard Educational Review*, 84(1), 85–100.
- Parker, A., & Neuharth-Pritchett, S. (2006). Developmentally appropriate practice in kindergarten: Factors shaping teachers' belief and practice. *Journal of Research in Childhood Education*, 21, 65–78.
- Parker, W.C., & Gehrke, N.J. (1986). Learning activities and teachers' decision making: Some grounded hypotheses. *American Educational Research Journal*, 23(2), 227–242.
- Parks, A.N., & Bridge-Rhoads, S. (2012). Overly scripted: Exploring the impact of a scripted literacy on a preschool teacher's instructional practices in mathematics. *Journal of Research in Childhood Education*, 26, 308–324.
- Parmigiani, D. (2012). Teachers and decision-making processes: An Italian exploratory study on individual and collaborative decisions. *Canadian Journal of Education*, 35(1), 171–186.
- Patton, M. (2015). *Qualitative evaluation and research methods* (4th ed.) Thousand Oaks, CA: Sage.

- Payne, C. (2008). *So much reform, so little change: The persistence of failure in urban schools*. Cambridge, MA: Harvard Education Press.
- Penso, S., & Shoham, E. (2003). Student teachers' reasoning while making pedagogical decisions. *European Journal of Teacher Education*, 26(3), 313–328.
- Peter D. Hart Research Associates, & Public Opinion Strategies. (2005). *Rising to the challenge: Are high school graduates prepared for college and work? A study of recent high school graduates, college instructors, and employers*. Achieve. Inc. Retrieved from https://www.achieve.org/files/pollreport_0.pdf
- Peterson, P.L., & Clarke, C.M. (1978). Teachers' report of their cognitive processes during teaching. *American Educational Research Journal*, 15(4), 555–565.
- Pickney, C.C. (2008). *Supplemental educational services in Pennsylvania: Policy perspectives, effects, and challenges*. Charlotte, NC: Information Age Publishing.
- Pink, D. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Riverhead Books.
- PISA. (2016, December 15). *2016 assessment data*. Retrieved from <http://www.oecd.org/pisa/data>
- Prensky, M. (2008). Turning on the lights. *Educational Research*, 65, 40–45.
- Putnam, R.T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4–5. doi: 10.3102/0013189X029001004
- Radcliffe, R.A., & Bos, B. (2013). Strategies to prepare middle and high school students for college and career readiness. *The Clearinghouse*, 86, 136–141. doi: 10.1080/00098655.2013.782850
- Ravitch, D. (2013). *Reign of error: The hoax of the privatization movement and the danger to America's public schools*. New York, NY: Alfred A. Knopf.
- Reardon, S.F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In G. Duncan & R. Murnane (Eds.), *Whither opportunity? Rising inequality, schools, and children's life chances* (pp. 1–50). New York, NY: Russell Sage Foundation. Retrieved from <https://cepa.stanford.edu/sites/default/files/reardon%20whither%20opportunity%20-%20chapter%205.pdf>
- Reeves, D. (2006). *The learning leader: How to focus school improvement for better results*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Remillard, J.T. (2005). Examining key concepts in research on teachers' use of mathematics curricula. *Review of Educational Research*, 75(2), 211–246.
- Renzulli, L., Linda, H.M., Parrott, B., & Irene, R. (2011). Racial mismatch and school type: Teacher satisfaction and retention in charter and traditional public schools. *Sociology of Education*, 84(1), 23–48.
- Rettig, M.D. (2004). *From rigorous standards to student achievement*. Larchmont, NY: Routledge. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=nlebk&AN=645037&site=eds-live&scope=site>
- Robinson, S. (2012, May 20). How the conservative worldview quashes critical thinking – and what that means for our kids' future. *AlterNet*. Retrieved from https://www.alternet.org/story/155469/how_the_conservative_worldview_quashes_critical_thinking_-_and_what_that_means_for_our_kids%27_future
- Roosman, G.B., & Rallis, S.F. (2017). *An introduction to qualitative research: Learning in the field*. Thousand Oaks, CA: Sage.
- Rotherham, A.J., & Willingham, D. (2009). 21st century skills: The challenges ahead. *Educational Leadership*, 67, 16–21.
- Rotherham, A.J., & Willingham, D. (2010). 21st century skills: Not new, but a worthy challenge. *American Education*, 34, 17–20.
- Rowe, K. (2003). *The importance of teacher quality as a key determinant of students' experiences and the outcomes of schooling*. Paper presented at the Building Teacher Quality: Research Conference 2003, Melbourne, AU. Retrieved from http://research.acer.edu.au/research_conference_2003/3/
- Ruby, A. (2006). Improving science achievement at a high-poverty urban middle school. *Science Education*, 90, 1005–1027.
- Ryan, S.V., Von der Embse, N.P., Pendergast, L., Saeki, E, Segool, N., & Schwing, S. (2017). Leaving the teaching profession: The role of the teacher stress and educational accountability policies on turnover intent. *Teacher Education*, 66, 1–11. doi: 10.1016/j.tate.2019.03.016
- Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland?* New York, NY: Teachers College Press.
- Saltman, K.J. (2007). Schooling in disaster capitalism: How the political right is using disaster to privatize public schooling. *Teacher Education Quarterly*, 34(2), 131–156.

- Saltman, K.J. (2011). *The failure of corporate school reform: White collar red tape: The new market bureaucracy in corporate reform*. Boulder, CO: Paradigm Publishers.
- Salvin, R.E. (2012). *Educational psychology: Theory and practice* (10th ed.). Upper Saddle River, NJ: Pearson.
- Salvin, R.E., Cheung, A., Holmes, G., Madden, N.A., & Chamberlain, A. (2013). Effects of data-district reform model on state assessment outcomes. *American Educational Research Journal*, 50.
- Samuels, A.J. (2018). Exploring culturally responsive pedagogy: Teachers' perspectives on fostering equitable and inclusive classrooms. *SRATE Journal*, 27(1), 22–30.
- Samuels, A.J., Samuels, G.L., & Cook, T.M. (2017). Examining perceptions of culturally responsive pedagogy in teacher preparation and teacher leadership candidates. *SRATE Journal*, 26(2), 50–60.
- Schaffer, C.L., White, M., & Brown, C.M. (2018). A tale of three cities: Defining urban schools within a context of varied geographic areas. *Education and Urban Society*, 50(6), 507–523.
- Schildkamp, K., & Ehren, M. (2013). From intuition to data-based decision making in Dutch secondary schools? In K. Schildkamp, L. Earl, & M.K. Lai (Eds.), *Data-based decision making in education: Challenges and opportunities* (pp. 49-67). Retrieved from https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1007%2F978-94-007-4816-3_4
- Schleicher, A. (2008). Seeing the United States education system through the prism of international comparisons. *Educational Leadership*, 66, 11-17.
- Schmidt, W., & McNight, C. (2012). *Inequality for all: The challenge of unequal opportunity in American schools*. New York, NY: Teachers College Press.
- Schmoker, M. (2006). *Results now: How we can achieve unprecedented improvements in teaching and learning*. Alexandria, VA: ASCD.
- Schwartz, K. (2016a). *Employers' challenge to educators: Make school relevant to students' lives*. Mindshift/KQED News. Retrieved from <http://ww2.kqed.org/mindshift/2014/06/23/employers-challenge-to-educators-make-to-students-lives/>
- Schwartz, K. (2016b). *Three tools for teachers critical thinking and problem solving skills*. MindShift/KQED News. Retrieved from <http://ww2.kqed.org/mindshift/2016/11/06/three-tools-for-teaching-critical-thinking-and-problem-solving-skills/>

- Scribner, J.P., Sawyer, R.K., Watson, S.T., & Myers, V.L. (2007). Teacher teams and distributed leadership: A study of group discourse and collaboration. *Educational Administration Quarterly*, 43(1), 67–100.
- Seidel, J.V. (1998). *Qualitative data analysis*. Retrieved from www.qualisresearch.com
- Sekaran, U. (2000). *Research methods for business: A skill-building approach* (3rd ed.). New York, NY: John Wiley & Sons.
- Senge, P.M. (2006). *The fifth dimension: The art and practice of the learning organization*. New York, NY: Doubleday.
- Sergiovanni, T.J. (2002). *Supervision: A redefinition*. New York, NY: McGraw Hill.
- Shavelson, R.J. (1973). What is the basic teaching skill? *The Journal of Teacher Education*, 24(4), 144–151.
- Shavelson, R.J., & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgments, decisions, and behavior. *Review of Educational Research*, 51(4) 455–498.
- Sinden, J.E., Hoy, W.K., & Sweetland, S.R. (2004). An analysis of enabling school structure. *Journal of Educational Administration*, 42(4), 462–478.
- Skaalvik, E.M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relationships with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology*, 99(3), 611–625. doi:10.1037/0022-0663.99.3.611
- Slater, H., Davies, N., & Burgess, S. (2009). Do teachers matter? Measuring the variation in teacher effectiveness in England. *The Centre for Market and Public Organisation*, 9(212), 1–22.
- Sleeter, C.E. (2011). An agenda to strengthen culturally responsive pedagogy. *English Teaching: Practice and Critique*, 10(2), 7–23.
- Sleeter, C.E. (2012). Confronting the marginalization of culturally responsive pedagogy. *Urban Education*, 47, 562–584.
- Snyder, R.R. (2017, Spring). Resistance to change among veteran teachers: Providing voice for more effective engagement. *NCPEA International Journal of Educational Leadership Preparation*, 12(1).
- Sparks, D. (1997). Is resistance to change really the problem? *The Developer*. Retrieved from <http://www.nsd.org/library/publications/developer/dev3-97sparks.cfm>

- Sparks, D., & Hirsh, S. (1997). *A new vision for staff development*. Alexandria, VA: Association for Supervision and Curriculum Development. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=cat07616a&AN=umk.b3619843&site=eds-live&scope=site>
- Spillane, J. P., & Diamond, J. B. (2007). *Distributed leadership in practice*. New York, NY: Teacher College Press.
- Springer, M. (2009). Seeing the future of middle level education requires a mirror rather than a crystal ball. *Middle School Journal*, 22–26.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks; CA: Sage.
- Stake, R. (2006). *Multiple case study analysis*. New York, NY: The Guilford Press.
- State and District Profile Data. (2015). Department of Elementary and Secondary Education.
- State and District Profile Data. (2016). Department of Elementary and Secondary Education.
- State and District Profile Data. (2017). Department of Elementary and Secondary Education.
- State Department of Education. (2018). *District profile data*. 2018 District Progress Report.
- Sterns, E., Banerjee, N., Moller, S., & Mickelson, R. (2015). Collective pedagogical teacher culture, teacher-student ethno-racial mismatch, and teacher job satisfaction. *Social Science Research*, 45, 56–72.
- Stewart, C., Raskin, C., & Zielaski, D. (2012). *Barriers to district level educational reform: A statewide study of Minnesota school superintendents*. NCPEA Publications.
- Stewart, F. (2018). *The STEM dilemma: Skills that matter to regions*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Stewart, V. (2008). World-smart students. *Phi Delta Kappan*, 90(3), 203–205.
- Suarez-Orozco, M.M. (2007). *Learning in the global era: International perspectives on globalization and education*. Berkley, CA: University of California Press.
- Swanson, C.B., & Stevenson, D.L. (2002). Standards-based reform in practice: Evidence on state policy and classroom instruction from NAEP state assessments. *Educational Evaluation and Policy Analysis*, 24(1), 1–27.
- Swartz, E., & Bakari, R. (2005). Development of the teaching in urban schools scale. *Teaching and Teacher Education*, 21(7), 829–841.

- Swift, D. (1971). *Ideology and change in the public schools: Latent functions of progressive education*. Columbus, OH: Charles E. Merrill.
- Takaki, R. (1993). *A different mirror: A history of multicultural America*. New York, NY: Little, Brown.
- Taylor, S., & Bogdan, R. (1998). *Introduction to research methods: A guidebook and resources* (3rd ed.). New York, NY: John Wiley & Sons.
- Teaching Tolerance. (2019, June 11). *Teaching Tolerance interviews Robin DiAngelo: White fragility in the classroom*. [Video file]. Retrieved from <https://www.youtube.com/watch?v=KCxNjdewAAA>
- Templeton, B. (2013). Why is that child so rude? *Educational Leadership*, 70, 72–74.
- Terego, A. (2009). Hard facts and soft skills. *Principal Leadership*, 10(1), 42–44. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=eft&AN=508089562&site=eds-live&scope=site>
- Thompson, S. (2003). Creating a high-performance school system. *Phi Delta Kappan*, 84(7), 488–495. doi: 10.1177/003172170308400704
- Toch, T., Jerald, C.D., & Dillion, E. (2007). Surprise—high school reform is working. *Phi Delta Kappan*, 88(6), 433–437.
- Torres, A.C. (2016). The uncertainty of high expectations: How principals influence relational trust and teacher turnover in no excuses charter schools. *Journal of School Leadership*, 26, 61–91.
- Torres, O. (2008). *Building capacity and raising awareness: Implementing NCLB and its impact on world languages*. Charlotte, NC: Information Age Publishing.
- Trefil, J., & Trefil, W.O. (2009). The science students need to know. *Educational Leadership*, 67(1), 28–33.
- Trilling, B., & Fadel, C. (2009). *21st century learning skills*. San Francisco, CA: John Wiley & Sons.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783–805.
- Tsui, A. (2003). *Understanding expertise in teaching: Case study of second language teachers*. Cambridge, UK: Cambridge University Press. doi: 10.1017/CBO9781139524698

- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work, 11*(1), 80–96.
- Twenty-first Century Skills. (2007). *The Partnership for 21st Century Skills*. Retrieved from <http://www.21stcenturyskills.org/index.php>
- Tyack, D., & Cuban, L. (1996). *Tinkering toward utopia: A century of public school reform*. Cambridge, MA: Harvard University Press.
- Tyson, T. (2009). Rediscovering substance of soul in the 21st century middle schools. *Middle School Journal, 37*–40.
- Umphrey, J. (2009) Toward 21st century supports. *Principal Leadership, 18*–21.
- UNESCO. (2005). Guidelines and recommendations for reorienting teacher education to address sustainability. Education for sustainable development in action. *Technical Paper No. 2*, Paris,. Retrieved from <http://unesdo.unesco.org/images/0014/001433/143370e.pdf>
- United States Department of Education. (2006). *The No Child Left Behind Act of* Washington, DC: USDE. Retrieved from <http://www.ed.gov/admins/lead/account/nclbreference/index.html?src=rt>
- Valencia, R.R. (2010). *Educational thoughts and practice: Dismantling contemporary deficit thinking*. New York, NY: Routledge.
- Vanhoof, J., Verhaeghe, G., Van Petegem, P., & Valcke, M. (2012). Flemish primary teachers' use of school performance feedback and the relationship with school characteristics. *Educational Research, 54*(4), 431–449. doi: 10.1080/00131881.2012.734726
- Vanlommel, K., Van Gasse, R., Vanhoof, J., & Van Petegen, P. (2017). Teachers' decision-making: Data based or intuition driven? *International Journal of Education Research, 83*, 75–83. doi:10.1016/j.ijer.2017.02.013
- Villegas, A.M., & Lucas, T. (2007). The culturally responsive teacher. *Educational Leadership, 64*(6), 28–33.
- Wagner, T. (2008). Rigor: Even our best schools are failing to prepare students for the 21st century careers and citizenship. *Educational Leadership, 20*–24.
- Wagner, T. (2010). *The global achievement gap: Why even our best schools don't teach the new survival skills our children need — and what we can do about it*. New York, NY: Basic Books.

- Wagner, T., Kegan, R., Lahey, L., Lemons, W.R., Garnier, R., Hessing, D., ...Rasmussens, T.H. (2006). *Change leadership: A practical guide to changing our schools*. San Francisco, CA: Jossey-Bass.
- Weiss, E.M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention: A secondary analysis. *Teaching and Teaching Education, 15*(8), 861–879.
- Wiggins, G.P., & McTighe, J. (2005). *Understanding by design* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=e095mww&AN=133964&site=eds-live&scope=site>
- Williams, R.B., Brien, K., & LeBlanc, J. (2012). Transforming schools into learning organizations: Supports and barriers to educational reform. *Canadian Journal of Educational Administration and Policy*, Issue #134.
- Wills, J.S. & Sandholtz, J.H. (2009). Constrained professionalism: Dilemmas of teaching in the face of tested-based accountability. *Teachers College Record, 111*, 1065–1114.
- Wilson, C.B., & Clissett, P. (2011). Involving older people in research: Practical considerations when using the authenticity criteria in constructivist inquiry. *Journal of Advanced Nursing, 67*(3), 677–686. doi: 10.1111/j.1365-2648.2010.05500.x
- Wise, B. (2008). High schools at the tipping point. *Educational Leadership, 65*, 8–13.
- Wrigley, T., Lingard, B., & Thomson, P. (2012). Pedagogies of transformation: Keeping hope alive in troubled times. *Critical Studies in Education, 53*, 95–108.
- Xin, F.J., Accardo, A.L., Shuff, M., Cormier, M., & Doorman, D. (2016). Integrating global content into special education teacher preparation programs. *Teacher Education and Special Education, 39*(3), 165–175.
- Yero, L.J. (2001). *Beliefs*. Retrieved from <http://www.TeachersMinds.com>
- Yero, L.J. (2002). *Teaching in mind*. Retrieved from <http://search.ebscohost.com.proxy.library.umkc.edu/login.aspx?direct=true&db=edshtl&AN=mdp.39015055456001&site=eds-live&scope=site>
- Yin, R.K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Yin, R.K. (2009). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.
- Young, V.M., Humphrey, D.C., Wang, H., Bosetti, K.R., Cassidy, L., Wechsler, M.E.,... Schanzenhack, D.W. (2009). *Renaissance schools fund supported schools: Early*

outcomes challenges, and opportunities. Stanford Research International and Chicago Consortium on Chicago School Research. Retrieved from <http://ccsr.uchicago.edu/publications/RSF%20FINAL%20April%2015.pdf>

Zhao, Y. (2010). Preparing globally competent teachers: A new imperative for teacher education. *Journal of Teacher Education*, *61*(5), 422–431.

VITA

Carl Michael Calcara was born May 17, 1974, at St. Luke's Hospital in Kansas City, Missouri. He moved from Kansas City to Blue Springs, Missouri, with his family in 1980. He attended Blue Springs High School and graduated in 1992. He then attended Johnson County Community College before transferring to the University of Missouri-Kansas City in 1996. Mr. Calcara earned a Bachelor of Arts in History in 1998. Mr. Calcara began his teaching career in the alternative program at Park Hill High School in the fall of 1999 and taught American History, World History, and Government and Economics until 2007.

As a classroom educator, Mr. Calcara developed an interest in school leadership and began work on an Education Specialist in Educational Leadership degree, which he completed in 2004. In 2007, Mr. Calcara left the Park Hill School District as a classroom educator and began a new role as an Assistant Principal at a middle school in the Raytown School District. In 2009, Mr. Calcara began working on his Doctoral in Education. In 2010, Mr. Calcara accepted a new position as a High School Assistant Principal in the Raytown School District, where he worked until 2014 when he became the Principal at Raytown South Middle School. Mr. Calcara is in his sixth year as building principal and plans to complete his doctoral program in the winter of 2019. Mr. Calcara plans to continue his career as a public educator and pursue local and state politics advocating for public education issues and funding.