EXPLORING THE ROLE OF EPISTEMIC COGNITION IN SOCIAL JUSTICE THINKING

By

BRANDON REGINALD MAUCLAIR-AUGUSTIN

A dissertation submitted to the
School of Graduate Studies
Rutgers, The State University of New Jersey
In partial fulfillment of the requirements
For the degree of
Doctor of Philosophy
Graduate Program in Education
Written under the direction of
Nicole Mirra
And approved by

_____________________________________
_____________________________________
_____________________________________
_____________________________________  

New Brunswick, New Jersey

May 2021
ABSTRACT OF THE DISSERTATION

Exploring the Role of Epistemic Cognition in Social Justice Thinking

by BRANDON REGINALD MAUCLAIR-AUGUSTIN

Dissertation Director:

Nicole Mirra

In recent decades there has been an increased call for teacher preparation programs to incorporate social justice themes into their curricula. This is in response to glaring educational inequities that fall along racial, linguistic, and socio-economic lines, among others (Ladson-Billings, 2006). These problems emerge, in part, from a mixture of conscious and unconscious biases that are exercised by teachers. In response to these problems, many schools of education work to help their teacher candidates (TCs) adopt social justice ways of thinking and to apply social justice pedagogies in their future instruction.

Researchers of social justice education (SJE) have routinely identified the problematic beliefs that teacher candidates hold as they enter the field (Cochran-Smith et al., 2015). Moreover, they have shown that TCs often still hold these views even after they engage in social justice-themed coursework. However, there is a dearth of research that has investigated the ways in which TCs evaluate knowledge about social issues. As teacher candidates engage in sensemaking about these issues, they are inherently engaging in epistemic thought. Specifically, they are making knowledge evaluations and
considerations about social issues. For example, when TCs evaluate information about social inequity they may weigh that information against their personal beliefs and experiences or even popular narratives of how the world works; yet, few studies frame TC learning in this way.

In the present study, using a lens of epistemic cognition and cultural-historical activity theory, I observed a cohort (n=15) of TCs as they engaged in different aspects of SJE. Specifically, I investigated the kinds of evidence TCs used to evaluated microaggressions in their school placements; the role of a SJE program in producing structural thinking and individualistic thinking in TCs; and, the pedagogical decisions TCs proposed during a simulated teaching activity. I found that TCs relied on a nuanced repertoire of evidence to identify microaggressions, however, they lacked confidence in their assessments; they expressed structural thinking in abundance but that was heavily influenced by the rules and activities that were present in the learning environment, which also hid their individualistic thinking; and, TCs proposed pedagogical decisions that required more refinement in order to reflect core aspects of social justice pedagogies. The findings from this investigation can support teacher educators and researchers in identifying key epistemic considerations that could improve social justice education programs.
Acknowledgements

I would like to thank my dissertation committee members, supportive faculty, and professors from my early graduate career for their guidance and their contributions to the field of education. Collectively, their work has helped to inform my approach to research and equity. I would also like to thank my friends and colleagues who have kept me going with their geniality and insightful feedback during the writing of my dissertation. Thank you to my family for the solid foundation and the endless laughs. Finally, in particular, thank you to my mother for her tireless support and her unceasing confidence in me. I am fortunate for each of these bonds and I hope these influences are reflected in my work, which seeks to make the world a little better.
Table of Contents

**ABSTRACT OF THE DISSERTATION** .................................................................................. ii

**Acknowledgements** ........................................................................................................ iv

**List of Tables** .................................................................................................................. viii

**List of Figure** .................................................................................................................... viii

**Chapter 1: Introduction** .................................................................................................. 1
  Neoliberalism and Individualism ....................................................................................... 1
  Implications of Neoliberalism on Educational Policy ....................................................... 2
  Structural Inequity in Urban Schools ............................................................................... 5
  Social Justice Efforts to Improve Education .................................................................... 8
  Learning Social Justice in Teacher Education Programs ................................................. 10
  New Approach to Social Justice Education ..................................................................... 11

**Chapter 2: Literature Review** ........................................................................................ 15
  Scholarship on Social Justice ........................................................................................... 15
    Teacher Education and Social Justice Education .......................................................... 18
    Core Skills Needed to Implement Social Justice Pedagogies ....................................... 20
    Situating the Research ................................................................................................. 23
    Challenges to Promoting Social Justice Thinking ....................................................... 26
  Theoretical Framework .................................................................................................... 28
    Key Aspects to Perspectives of Epistemic Cognition ................................................... 29
    Epistemic Cognition in Social Justice Education ........................................................ 31
    Cultural-Historical Activity Theory ............................................................................ 36
    Epistemic Cognition Research Methods ..................................................................... 38

**Chapter 3: Methodology** ................................................................................................ 40
  Positionality .................................................................................................................... 40
  Participants ...................................................................................................................... 42
  Research Site ................................................................................................................... 43
    Justification of Setting ................................................................................................. 47
  Preliminary Fieldwork ..................................................................................................... 49
    Sharing Beliefs about Social Issues ............................................................................ 50
    Structural Analyses with Limits ................................................................................. 51
    Productive Anger ....................................................................................................... 54
  Methodological Approach .............................................................................................. 54
  Data Collection .............................................................................................................. 55
  Procedure ....................................................................................................................... 57
Chapter 6: Teacher Candidates’ Pedagogical Decision Making and Commitments to Student Difference ................................................................. 132

Data and Analysis ........................................................................................................... 133

Trends in Pedagogical Decision Making ........................................................................ 137
  Making Curricula Relevant to Students ................................................................. 138
  Attending to Students’ Communication Skills ......................................................... 141
  Helping Students Uncover Whys and Hows ............................................................ 144
  Calibrating Lesson Complexity ................................................................................ 146
  Supporting Student Agency ...................................................................................... 149
  Cross-Curricular Integration ..................................................................................... 151

Pedagogical Decision Making and its Alignment with Social Justice Pedagogies ........ 152

Tailoring Lesson Plans to Accommodate Student Differences ....................................... 153
  Alex .......................................................................................................................... 154
  Charlotte .................................................................................................................. 157
  Lauren ...................................................................................................................... 160
  Leslie ....................................................................................................................... 165

Conclusions ................................................................................................................... 167

Chapter 7: Conclusion .................................................................................................... 169

Findings and Practical Implications .............................................................................. 169

Implications for Research ............................................................................................ 175

Limitations and Concluding Thoughts .......................................................................... 178

References .................................................................................................................... 180

Appendix A: Mini-Action Research Project and Rubric ................................................. 192

Appendix B: Action Research Planning Document ...................................................... 195

Appendix C: Semi-Structured Interview Protocol ...................................................... 196

Appendix D: Think Aloud Protocol ............................................................................ 197

Appendix E: Think Aloud Retrospective Interview .................................................... 198

Appendix F: Glossary .................................................................................................... 199
List of Tables

Table 1: Data Collection Activities ................................................................. 59
Table 2: Trends in Evidence of Discrimination or Bias Cited by Participants .... 67
Table 3: Impactful Knowledge Types ............................................................... 69
Table 4: Examples of Structural and Individualistic Thinking ....................... 71
Table 5: Use of Structural and Individualistic Thinking ................................. 72
Table 6: Trends in Pedagogical Decisions Sought by Participants .................. 74
Table 7: All Student Difference and Some Pedagogical Considerations .......... 75
Table 8: Impactful Knowledge Types ............................................................... 90
Table 9: Activity System Tools and Rules ...................................................... 126

List of Figure

Figure 1: Urban Teacher Education Program Activity System Diagram .......... 121
Figure 2: Six-Day Unit Instructions ............................................................... 135
Figure 3: Blank Six Day Unit Document for Participants ............................... 135
Chapter 1: Introduction

In recent decades there has been an increased interest in education for social justice, not only as a long-term goal for society but also as a commitment to be enacted in the daily processes of teaching and learning in schools. As such, social justice has become a major component in modern teacher education programs. To understand why these programs have adopted this mission we must understand the current political and social contexts. Below I explain the core tenets of neoliberalism, an individualistic philosophy that has become embedded in American culture and has had a detrimental impact on educational policy. I then uncover the implications of these policies and how they exacerbate structural inequity and racist ideologies that are present in schools. Later in this chapter, I describe the efforts that have been made to curb educational inequity—this includes the push for teacher candidates to adopt social justice dispositions. Finally, I explain the need for an epistemological approach to strengthen these programs intended to prepare teacher candidates to teach toward social justice.

Neoliberalism and Individualism

Social scientists and other academics have identified neoliberalism as a pervasive social-economic philosophy that calls for economic liberalism and has a far-reaching impact on our ways of thinking (Giroux, 2015). This ideology is embedded in our institutional policies and the larger structures (e.g., economic, political, educational, and cultural systems) that shape society (Brown, 2006). The economic liberalism that guides this ideology is manifested in various ways such as free market expansion, corporate deregulation, privatization of public services, and individualism (Harvey, 2007). These
manifestations promote corporate interests over the public good and they reject the need for government intervention in correcting social and economic disparities.

Supporters of neoliberal policies argue that this philosophy uses the free market as a fair arbiter of economic and social success; and thusly, if one does not succeed then it is a reflection of their lack of merit and not the impact of the systems and structures that shape society. Ultimately, a significant component to neoliberal ideology is the belief that social inequity is created by irresponsible individuals and not harmful group-based power differences or oppressive systems (Bonilla-Silva, 2003). Many academics have shown the prevalence of neoliberalism and have outlined its damaging effects on society and democracy (Augoustinos et al., 2005; Chomsky, 1999; Giroux, 2015; Jost et al., 2003). The hegemonic effect of neoliberal ideology leads members of society to view the social contract as harmful to social progress and it fuels a harsh survivor of the fittest ethos in society. Over time, the policies that are inspired by this ideology create and reenforce social stratification. Eventually, this stratification appears to be the norm, which leads people to see it as not only natural but as an ideal form of social organization.

**Implications of Neoliberalism on Educational Policy**

The effects of neoliberal philosophy are present throughout the educational system. For example, neoliberals argue that education is an equalizer and success in America is based on meritocracy; yet, public schools are largely funded by neighborhood property taxes (Lipman, 2004). This creates significant obstacles to acquiring equitable education for students in low-income neighborhoods. Underfunded public schools lack the financial means to properly compensate teachers, which limits schools’ ability to find top recruits. These poorly funded schools can lack modern textbooks, access to
technology, special education services, curricular programs for college preparation, services for English language learners (ELLs), and robust extracurricular programs. These problems have a deleterious effect on students and their futures.

Neoliberal beliefs have also created misinformed educational policies that support unhealthy competition between nations and schools. *A Nation at Risk* (1983) was a report generated by the National Commission on Excellence in Education to promote American exceptionalism by arguing that the U.S. was falling behind in a global educational race. The report cited middling test scores in math and science as evidence of the country trailing behind its international counterparts. Since the report was released, U.S. policymakers have increasingly relied on test scores that compare the U.S. to other countries to guide educational legislation. In addition, standardized testing has increased significantly as a means to measure teacher efficacy to further American exceptionalism goals.

These test scores are misrepresentations of the landscape of the educational system around the world and in the U.S. The Programme for International Student Assessment (PISA) is a leading test that is used to rank the success of educational systems in various countries and is used by U.S. policymakers. The final rankings fail to explain that the test scores of many countries are inflated. However, researchers have noted the flaws in the PISA measurement (Hopfenbeck et al., 2018). Some of the flaws are a result of the following characteristics of different countries: (a) impoverished students’ reduced access to public education, which results in only wealthier students being tested; (b) the use of “cram schools” in some countries, which provide students with additional hours each week to hone their math skills; and (c) the effects of
egalitarianism, which can be found in some culturally homogenous countries. These considerations are ignored and instead PISA results are used to galvanize the public to approve the U.S.’s neoliberal focus on international educational supremacy (Mehta et al., 2012).

Perhaps the most significant educational policy that has been generated in recent decades is the No Child Left Behind Act (United States Congress, 2002). This was passed to assure the success of the nation’s new focus on math, science, and literacy, but instead it worsened the state of education in the U.S. The legislation was guided by neoliberal logic which financially rewarded schools that were performing well while reducing the funding of the schools that were already facing significant obstacles. Standardized testing became the instrument by which to measure the success of a school. Politicians relied on the promise that these tests were neutral measures of student ability or students’ potential for success. However, researchers have found that these tests favor the knowledge and culture of White middle-class society (Darling-Hammond, 2007). In addition, these tests are unfair in their very inception. The standardization of tests requires that scores be forced into a bell-shape distribution to create distinctions that are not organic but instead based on the goal of stratifying students (Au, 2013). Furthermore, these tests were never intended to be used as measures of teacher effectiveness; yet, the social and political climate placed an extraordinary amount of pressure on teachers to have their students perform well on them. As a response, schools narrowed their curricula by eliminating courses that were not deemed core to education and teachers began designing their lessons around the content that would be found in the tests.
If a neighborhood school was failing to meet the expectations of No Child Left Behind then parents were allowed to transfer their children to better performing schools, even though this was not always a feasible option for parents in poor neighborhoods. As part of the legislation, corporations were permitted to takeover failing schools and transform them into charter schools; publicly-funded but privately ran schools. These schools employ unregulated tactics to produce favorable student outcomes. However, some of these schools use deceptive methods to prevent the entry of low performing students. Furthermore, some schools do not report their outcomes so there is no indication of how effective the school is in teaching students.

The result is that students continue to suffer due to harmful economic policies and ideologies. Unfortunately, the situation has worsened because the neoliberal philosophy that dominates political discourse explains this “achievement gap”—or more accurately described as an opportunity gap by Ladson-Billings (2006)—is a result of failing students and failings teachers and ignores the structural and historical circumstances that created this morass. Scholars have shown the damage of these policies and their accompanied individualistic explanations of failure (Lipman, 2003; Mehta, 2013). In order to help students to succeed, stakeholders including policymakers and teachers must be able to examine the ways structures influence student outcomes.

**Structural Inequity in Urban Schools**

Urban schools face unique obstacles that can be traced to inequity in its various forms (Lippman, 1996). Communities that are marginalized due to ethnic and socio-economic factors are more likely to be found in urban schools (Massey & Tannen, 2016). These schools can lack basic resources and services for students and their communities.
Students from marginalized populations are faced with higher rates of dropout and suspensions (Chu & Ready, 2018). However, these numbers are not simply a result of limited financial resources. The education system and the beliefs that govern it, play a major role in creating and perpetuating society-wide inequality (Anyon, 1980; Bowles & Gintis, 1976; Bourdieu, 1973).

The racial mismatch between teachers and students can produce inequity that falls along racial lines in schools and broader society. In the 2015-2016 academic year, 80% of elementary and secondary public-school teachers were White (Taie & Goldring, 2017). According to the National Center for Education Statistics (2018), in fall of 2017 54% of public-school students were non-White and an additional 4% were mixed race. Empirical work has found that underserved students of color are disproportionately expelled from schools and those students are also less likely to join gifted programs (Hirschfield, 2008; Skiba et al., 2002). School disciplinary policies, especially Zero Tolerance policies, have been known to have significant effects on the futures of students from marginalized groups (Ferguson, 2001). Studies have also shown that Black and Latino male students are more likely to receive harsher punishments for the same infractions than their White and female peers (Gregory, 1997). These forms of punishment contribute to a school-to-prison pipeline for Black students in particular (Skiba et al., 2014). Teachers’ biases cause them to frame their Black students as potential criminals, which leads them to employ harsh disciplinary tactics. When youth are removed from school and separated from their peers, they become more vulnerable to having interactions with the legal system. School disciplinary policies and teachers’ beliefs require significant
transformation in order to optimize schools as a place for learning as opposed to a space for assimilation and punishment.

Scholars have also noted the complex ways in which gender, sexuality, language, and race intersect and are challenged in schools (Connell, 2000; Kumashiro, 2001; Pascoe, 2007). It has been known that teachers can unwittingly perpetuate harmful expressions of masculinity in school-sanctioned activities, the curriculum, and in disciplinary practices (Pascoe, 2007). Research has also brought to light the ways English language learners and students from different cultural backgrounds and legal statuses can be impacted by teacher beliefs and social interactions in schools (Kanno & Kangus, 2014; Kohli & Solórzano, 2012; Mangual Figueroa, 2017). Some of those impacts include teachers and staff guiding ELLs away from challenging courses and students experiencing subtle everyday racism known as microaggressions. These actions can affect students’ confidence and their academic trajectories. The negative biases of teachers and school staff are also revealed in the disproportionate tracking of students who are from racially and linguistically marginalized groups into special education programs and vocational academic tracks (Artiles & Trent, 1994; Blanchett, Klingner, & Harry, 2009; Oakes, 2005).

In addition to problems with policies and social interactions in schools, the curriculum in schools devalue the knowledge and culture of students from marginalized groups (Yosso, 2002). Critics have drawn attention to the ways in which textbooks distort or minimize the experiences of marginalized groups and their histories (Brown & Brown, 2010). The content is often Eurocentric which furthers the cultural divide between teachers and their non-White students (Goldenberg, 2013). It privileges the language and
interests of White culture despite the significant population of historically marginalized
groups in the U.S. In addition, students who use non-standard forms of English are often
seen as less intelligent by their teachers and are believed to need to assimilate to the
dominant forms of the language (Perry & Delpit, 1998). Schools also use the curriculum
as a way to reproduce social class (Anyon, 1980). Depending on the social class of most
parents in a given school, teachers have been known to alter their teaching methods in
order to prepare students for the likely positions that they believe their students will hold
as adults.

These issues with the mainstream curriculum are in desperate need of change if
schools are truly dedicated to equity in education. It is evident that the challenges that
marginalized students face in academic settings is greatly influenced by harsh school
policies, discriminatory teacher beliefs and practices, and a Eurocentric curriculum.
Given that, researchers have called for teachers to develop their knowledge of students’
experiences and social identities, and to value the cultural resources students bring to the
classroom in K-12 contexts (Ladson-Billings, 1995; Lucas et al., 2015; McLaren, 2015).

**Social Justice Efforts to Improve Education**

The disparities that marginalized populations experience in schools has inspired
cries for structural and pedagogical changes in the education system. For example,
parents have complained about the narrowing of the curriculum and they have expressed
concern over the test burnout that their children are experiencing. Teachers have become
frustrated with unreliable accountability measures—some have protested high stakes
testing and even refused to administer the tests. This public outcry has led some states to
include opt-out testing options for students (Behrent, 2016). In support of this pushback
against high stakes testing, some universities no longer require test scores as part of students’ application packet. The solidarity and mobilization that this movement has fostered continues to spread across the U.S. landscape.

To counteract the harmful effects that schools have had on students from marginalized groups, activists and academics have proposed changes to school policies and teacher practices. In place of Zero Tolerance policies, some schools have adopted a restorative justice approach (González, 2012; Zehr, 2002). This is an approach that has a focus on community building and conflict resolution between students, teachers, and other stakeholders. Teachers are asked to reexamine what they deem to be “behavior problems” and, when appropriate, creatively accommodate the needs of students rather than force them to assimilate to the teacher’s expectations. This approach serves to make schools less of a reactionary and punitive space and one for learning and social growth.

Furthermore, there has been a great push for teachers to engage in equitable teaching practices. Educational researchers and social activists are asking teachers to do the following: use students’ cultures and languages as assets in the learning process and not deficits (Ladson-Billings, 1995); see learning as a mutual exchange of ideas with students and not an act of assimilation (Paris & Alim, 2017); develop connections within the local community and not avoid them (Warren, 2005); teach students to question the status quo rather than abide by it (Freire, 1970); foster students’ civic identities and not run from it (Mirra & Morrell, 2011); and, act with self-reflection and not simple convenience (Howard, 2003). In order to accomplish these goals, teacher education must be done differently. To that end, more focus has been placed on the role of teacher
education programs and their effectiveness in developing social justice beliefs and practices in future teachers.

**Learning Social Justice in Teacher Education Programs**

Teacher educators have struggled to help their teacher candidates to adopt social justice dispositions (Villegas, 2007). Prospective teachers enter preparation programs with the same harmful worldviews that are present in mainstream society (Picower, 2009). In the post-Civil Rights era, people commonly believe that discrimination against different racial and ethnic groups groups is largely a thing of the past (Wise, 2010) and when it does occur it happens on an individual and interpersonal level. Additionally, White people, in particular, hold a colorblind ideology in which they believe that their thoughts and actions are not influenced by the race of another person and that racial discrimination is a thing of the past (Bonilla-Silva, 2017). Many people proclaim colorblindness in an effort to appear neutral and uninfluenced by race. To adopt a colorblind ideology is a practice of self-reassurance and is an attempt at distancing oneself from race issues (Flagg, 1993). This allows a White person to avoid difficult introspection about race and their own prejudices. They may assume that their “race neutrality” will help to prevent the escalation of social conflicts, however, the opposite can occur (Schofield, 2010). These views about race are highly problematic because they can lead people to blame the victims of inequity and they can perpetuate the discriminatory beliefs that fuel harmful institutional practices and policies (Wise, 2010). Moreover, the belief that individual decisions are solely responsible for large-scale inequity is predicated on the faith that institutions are neutral and by extension they are founded on neutral principles. It takes a great deal of work to have (White) teacher
candidates reassess a worldview that may protect their perspectives and their position in society.

Teacher education programs have used various strategies to help teachers evolve their worldviews in order to align with social justice efforts (Cochran-Smith et al., 2015). However, these strategies have had limited effects on the development of their social justice dispositions (Mueller & O’Connor, 2012; Sleeter, 2001). White teachers in particular employ numerous forms of resistance to ideas that call their worldviews into question (Picower, 2009). This leaves a gap in the teacher education literature. More research is needed in order to uncover and develop forms of instruction that recognize the specific challenges and beliefs that TCs possess.

**New Approach to Social Justice Education**

A promising solution to the aforementioned problems is the investigation of teacher candidates’ epistemological beliefs and practices in relation to social justice thinking. As teacher candidates engage in sensemaking about social issues, they are inherently engaging in epistemic evaluations. In other words, they are making knowledge judgments about social issues. For example, they may consciously or subconsciously question if teacher educators are reliable producers of knowledge about racism. Or, TCs may wonder if social justice explanations of inequity are true, believable, or even knowable. In addition, they are also evaluating that information against their personal experiences, beliefs, and popular narratives of how the world works; yet, few studies frame teacher education in this way.

In the present study, I examine the intersection of epistemic cognition and social justice education. I observed a TC cohort (n=15) as they completed two courses within a
social justice-focused teacher preparation program. My data consisted of class and group audio recordings, interviews, surveys, a focus group, a think aloud protocol, and all course assignments and online forum posts. I used the following research questions to guide my investigation:

1.  (a) What kinds of evidence assisted teacher candidates in detecting oppression in schools? (b) What types of knowledge produced pivotal learning experiences about social issues for teacher candidates?

2. (a) What types of structural and individualistic analyses did teacher candidates apply to educational issues in a teacher preparation program? (b) How were teacher candidates’ analyses shaped by a teacher preparation program?

3. (a) What were common pedagogical decisions teacher candidates made while lesson planning and did their decisions align with social justice pedagogies? (b) During lesson planning, what kinds of student differences did teacher candidates consider and why did these considerations emerge?

These questions were designed to investigate what could be key aspects of creating effective social justice teacher education programs. Firstly, I examined how TCs detected oppression and then I examined the genesis of their stated social beliefs in order to see how their prior knowledge had been shaped. Secondly, I examined how the program could have influenced TCs’ use of social justice thinking. Thirdly, I investigated how teacher candidates’ social justice thinking guided them as they engaged in a simulated activity of practice. My analyses led to the following answers to my research questions.
1. (a) I found that teacher candidates used rather nuanced criteria to evaluate if a social situation was an instance of oppression and these situations frequently emerged during clinical fieldwork experiences. (b) I also found that firsthand and secondhand knowledge played a significant role in helping teacher candidates to better understand social issues.

2. (a) I found that in addition to their frequent use of structural analyses, TCs applied three types of individualistic analyses to educational issues; individualistic-structural analyses, fully individualistic analyses, and individualistic analyses with distance. Furthermore, the scope of the structural analyses was most often confined to the classroom. (b) I also found that cooperating teachers’ sense of powerlessness and the rules that governed some teacher preparation assignments played an important role in confining TCs’ thinking to classroom-level analyses.

3. (a) I found that the candidates demonstrated pedagogical decision making that had the potential to align with social justice pedagogies but ultimately fell short in important ways. (b) I found that teacher candidates tailored their lessons to students with different background knowledge, communication skills, access to resources, and social identities. In addition, these considerations were commitments that were evidenced throughout the study.

The findings from this dissertation could lead to improved instructional goals and designs that are tailored to accommodate common obstacles in social justice-related belief change. If educational researchers are able to pinpoint patterns in teacher candidates’ epistemic thought on social issues, then they can better examine which
materials and pedagogical practices are needed to successfully help TCs overcome the challenges of forming social justice dispositions.

This dissertation is organized in the following way: In Chapter 2, I provide a literature review that examines the foundations of SJE and related empirical work. I also provide a review of the epistemic cognition and cultural-historical activity theories that frame the present study. In Chapter 3, I outline my methodology, which includes details about the setting, my justifications for its use, and the data analysis methods that I employed. In Chapter 4, I uncover the evaluations and epistemic factors that shape TCs’ social beliefs. Then in Chapter 5, I examine the coherence of teacher candidates’ social justice thinking and I examine the influence of the teacher education program in producing those patterns. In Chapter 6, I explore the unexpected and varied ways teacher candidates could spontaneously harness some of the themes discussed in the program. Finally, in Chapter 7, I synthesize my findings, explain the limitations of the study, and provide implications for future teacher education research.
Chapter 2: Literature Review

In this literature review, I explore the theoretical and empirical work in social justice education and argue for a new approach to this line of research. In the later sections, I go on to describe my guiding theoretical framework and what could be gained from this novel approach. I conclude the review with findings from previous related studies and I discuss the methodological considerations that helped me investigate the role of epistemic cognition in social justice thinking.

Scholarship on Social Justice

Justice as Fairness

Theories of social justice have been debated by scholars throughout history (Miller, 1999). In Western civilization since the Enlightenment period these debates have often been based on conflicting beliefs about the natural of state of people and how they should be governed in response to their natural state. The following three perspectives have shaped the discourse on justice, in Western philosophy. Hobbesian approaches to justice are based on the belief that people are inherently bad and selfish and thusly require government to protect people from themselves (King, 2013). Lockean approaches assume people are rational actors who can reason and come to sound decisions—and so, government should be used to assure basic rights (MacPherson, 1973). Rousseauian approaches assume that in their natural state, people are good yet corruptible. In order to resolve this problem, the government should be used to enforce a social contract that assures freedom for all (Masters, 2015). As such, this contract would require equal sacrifices by all for the sake of assuring freedom for all.
Rawls, an important figure in modern conceptions of social justice, based his theories on Rousseau’s belief of assuring freedom for all members of society (Freeman, 2009). Rawls proposed a thought experiment. He asked what type of society would someone in an unborn state choose to be born into. He concluded that a person would choose a society in which everyone is free and afforded basic rights and treated with respect. This was a fundamental aspect of his *justice as fairness* thesis. This thesis contends that freedom must be granted to all and in order to achieve that, resources should be distributed to the least favored in a society (Rawls, 2001, 2003). In other words, the Rawlsian approach to justice requires *equity* in society—society must work to correct injustices to the least favored groups and distribute resources accordingly in order to achieve fairness. This is in contrast to common conceptions of *equality*. These conceptions generally are not focused at ameliorating past harms but are focused on giving the same resources to everyone in spite of the different needs of different members of society. Rawls’ justice as fairness concept became a guiding philosophy for many progressive school reforms in the latter half of the 20th Century. In the present study, I will also use the term *equity-focused* synonymously with *social justice-focused*. In addition, when I use *social inequality* or *equality* I am speaking only to the stratification of society and I am not suggesting a support for equality over equity.

**Foundations of Social Justice Education**

Schools have often been used as sites to employ social justice (Perkinson, 1991); however, the implementation of justice has varied widely and can often lead to deleterious effects. In David Labaree’s *Public Goods, Private Goods: The American Struggle Over Educational Goals* (1997), he identifies three main goals that have been set
for schooling. He argues that the conflict between these goals is the actual cause of the
tensions found in the education system. He explains, the first goal is democratic equality,
which seeks to prepare individuals to become informed political players. This goal
encourages citizenship training, equal treatment of peoples, and equal access. The second
goal is social equality, which results in the increasing vocationalizing of schools—
schools are preparing individuals to fill the labor market. This conflicts with the first goal
because it reenforces social and economic inequities among students and merely prepares
certain populations for the labor force. The third goal is for social mobility—education is
needed to further an individual’s career. This goal conflicts with the first and second ones
because it views education as a private good (only for the individual) rather than a public
good (meant to benefit all). Many scholars have drawn attention to how aspects of these
conflicts produce social inequity (Apple, 1979; Bowles & Gintis, 1976) and cultural

As a response, scholars and activists started social justice education as a line of
inquiry that could be used to improve societal conditions through the enactment of
various social justice pedagogies and instructional practices by future teachers. Much of
modern social justice pedagogies (which are enacted in schools) stem from the work of
Paolo Freire, a Brazilian scholar who called into question the ideologies and instructional
practices that dominate schools (1970). He described society’s current form of education
as a banking model of education; learners serve as passive receivers of knowledge while
teachers deposit knowledge into them. This form of education creates a harmful power
dynamic between the teacher and the student because it privileges the teacher’s
knowledge and culture over the student’s knowledge and culture. Ultimately, this can
perpetuate the stratification of a society. Freire and other scholars such as Michael Apple (1979) and Henry Giroux (1988), were major figures in developing critical pedagogy. This alternative to the banking model of learning was developed as a tool to liberate oppressed people—a manifestation of Rawlsian justice. Critical pedagogy requires a considerable amount of self-reflection and critique of the taken-for-granted assumptions that guide our society (e.g., success through meritocracy, rugged individualism, and the equalizing effect of education on social inequality). In critical pedagogy, learners are empowered when they contribute their knowledge and ways of knowing to the learning environment and use that knowledge to critique society.

Similar pedagogies, such as culturally-relevant pedagogy (Ladson-Billings, 1995), anti-oppressive pedagogy (Kumashiro, 2000), and transformative pedagogy (Nagda et al., 2003) have emerged to challenge the ways in which schools reproduce inequality. Scholars such as Ladson-Billings (1995) have noted the importance of preparing teachers to teach students from marginalized groups in ways that affirm their knowledge and cultures. Other scholars have called for teacher education programs to prepare their candidates to become public intellectuals and civic agents who are in alliance with students and their communities (Duncan-Andrade & Morrell, 2008; Mirra & Morrell, 2011). These pedagogies work to correct societal and educational inequity through the use of teacher education.

**Teacher Education and Social Justice Education**

Research on teaching for social justice has underscored the importance of teacher education programs in assisting teacher candidates in gaining skills necessary to support and promote social justice (Cochran-Smith et al., 2009; Villegas, 2007). Some
Researchers draw attention to the importance of the beliefs of teacher candidates as they enter preparation programs (Gay, 2010; Picower, 2009) and work toward educating them about social inequity. Other researchers have suggested the need for teacher education programs to focus on recruiting and admitting people of color and those who already have socially just beliefs (Brennan & Bliss, 1998; Haberman, 1996). Meanwhile other researchers chose to focus on the instructional strategies that can promote socially just dispositions in student candidates (Baldwin et al., 2007; Gay & Kirkland, 2003). The goal of many of these programs is to help candidates recognize how their social privileges and biases influence student outcomes. It is presumed that only then can teacher candidates be able to engage in equitable teaching practices.

Villegas (2007) stressed the significance of identifying the development of teacher candidate dispositions throughout teacher preparation programs. She defines dispositions as “a tendency to act in a particular manner under particular circumstances (e.g., teaching in ways that give access to knowledge to all students in a class—including those who differ from the mainstream norm)” (p. 376). In her study, Villegas showed that it is possible to admit students from disparate ideological backgrounds and help them to develop socially just dispositions. Her teacher education program:

1. Informed admits of the programs’ emphasis on social justice and gave them the choice to continue into the program if they wished.

2. Had candidates do coursework and field experiences in diverse schools and communities to build their knowledge and skills in equitable teaching.

Villegas explained that an important feature to promoting socially just dispositions in teacher candidates is to give teacher educators numerous opportunities to assess
dispositions (e.g. writing activities in which candidates would reflect on their theories on the cause of racial/ethnic achievement gaps; weekly logs that identified shifts in growth) and provide TCs with numerous opportunities to develop dispositions (e.g. provided candidates with literatures that went beyond individualistic explanations of achievement gaps or provided individualized feedback on weekly logs). In addition, Villegas used rubrics that indicated a valuing of thoughtfulness and clarity in writing rather than candidates reaching a socially desirable pre-determined conclusion (p. 377). As evidenced in Villegas’ work, research that is focused on teacher preparation programs is of particular importance and relevance to achieving goals of teaching for social justice. Villegas’ call for identifying, developing, and assessing teacher candidates’ dispositions toward social justice is central to promoting equity in schools.

**Core Skills Needed to Implement Social Justice Pedagogies**

Many scholars have underscored the need for implementing social justice pedagogies into classrooms (Banks, 1997; Duncan-Andrade, 2007; Hackman, 2005; Picower, 2012). In order to do this, teacher candidates must develop core skillsets before they enter the field. Hackman (2005) recommends that teachers do the following: master content and factual information relating to oppression its historical contexts and implications on both a micro and macro level; provide tools for students to engage in critical analysis and disrupting dominant narratives; provide students with tools for action and social change; provide tools for personal reflection; and, to understand multicultural group dynamics in their classroom. Goodwin and Darity (2019) identified five knowledge sets that are important for teacher candidates to possess if they wish to provide equitable education. They recognized the importance of personal knowledge (engaging in critical
introspection of prior beliefs); contextual knowledge (understanding the historical and
socio-political context of teaching); pedagogical knowledge (understanding how to
construct the curriculum based on the greater needs of the students); sociological
knowledge (understanding social injustice and working to resolve it); and social
knowledge (understanding how to communicate well and work cooperatively). Picower
(2012) recommends social justice to be implemented into the curriculum in the following
ways: provide students with opportunities to recognize and value their identities through
self-love and knowledge; foster a climate of respect for others; identify and discuss issues
of social injustice; address social movements and their effects; provide opportunities for
students to teach others about these social issues; and provide opportunities for students
to take action. Finally, Duncan-Andrade (2007) found the following traits in those who
were effective teachers in urban schools. The teachers: had a critically conscious purpose
to teaching as opposed to romanticized ideas of teaching; felt they had a duty to their
students and the community; were prepared to teach and spent a great deal of time doing
that preparation; had Socratic sensibilities that encourages self-critique and growth; and,
had a commitment to building trust with their students. From these frameworks, and more
(Carlisle et al., 2007; Connell & Connell, 1993; Theoharis, 2007), we can see that to
enact social justice pedagogies, teacher candidates must be able to recognize injustice,
critique institutions and systems, and operationalize social justice themes into
professional practice.

Research shows that these skills are not fully developed in teachers (Cochran-
Smith et al., 2015; Castro, 2010). Recognizing injustice can at times be difficult because
of the covert nature of modern discrimination. Discrimination often happens in the form
of microaggressions, or subtle repeated and sometimes unconscious putdowns that wear on marginalized people over time (Pierce, 1995). There is a body of research that shows the prevalence of microaggressions in academic settings (Allen et al., 2013; McCabe, Dragowski, & Rubinson, 2013; Rosenbloom & Way, 2004; Yosso et al., 2009). Since this form of discrimination is expressed in subtle and often ambiguous ways it can be difficult to recognize (Boysen, 2012). However, some research shows that in schools, teachers may simply ignore microaggressions that they have witnessed for a number of reasons including feeling unable to rectify the situation (Lemley, 2014). Moreover, when teachers do address these issues, they can do so in ways that reenforce their prejudiced views (Sue et al., 2009). In order to develop pedagogical strategies to correct this issue we must first conduct more research to uncover how preservice teachers recognize and analyze discrimination (Pearce, 2019).

Conducting structural critiques of injustice is an important aspect of social justice education (Anyon, 1995; Burant & Kirby, 2002; Schofield, 1997); yet, teacher learning about structural inequity is often understudied. When particular attention has been paid to developing structural thinking, researchers have found results that ranged from teacher candidates reverting to individualistic explanations of injustice when in their field placement (Boyle-Baise & Langford, 2004) to TCs developing more empathy and lessening their stereotypic views of students and their families (Hampshire et al., 2015). While there is some promise that teacher candidates are capable of structural critique, little research on teacher education is focused on specifically drawing out that aspect of social justice thinking.
Finally, teacher candidates’ ability to implement social justice education into their classrooms is a key component to engaging in social justice pedagogical practices. However, there are few studies that examine this and there are even fewer longitudinal studies that track the effectiveness of implementation (Cochran-Smith et al., 2015). In two studies, there was some evidence that showed that the more cultural diversity courses teacher candidates took, the more likely they were to endorse teaching practices that would accommodate student diversity (Kumar & Hamer, 2013; Kumar & Lauermann, 2018). However, these responses were pulled from Likert-type questionnaires which may have prompted the participants to respond in a socially desirable manner. More research is needed to uncover if and how TCs could develop these important skillsets.

Situating the Research

In order to situate my research, I will expand on major findings that are at the intersection of teacher education and social justice education. Cochran-Smith et al. (2015) completed an extensive review of over 1,500 teacher education research studies between 2000 and 2012. They found that one of three major strands of teacher preparation research was dedicated to teaching for diversity and equity (p. 114). Within this body of literature four clusters of research were found:

- research that explored the influence of coursework and fieldwork on candidates’ beliefs and their development of teaching practices;
- research on the recruitment and preparation of a diverse teaching force;
- analyses of the content, structure, and pedagogies of social justice education programs; and,
- investigations into teacher educators and their role in teaching for social
justice and preparing teacher candidates (p. 112).

Given that my research falls most closely into the first focus I will discuss the major finding from that body of research.

In general, these studies tended to investigate whether candidates’ beliefs had changed in teacher education programs. The major finding is that while some studies identified important dispositions such as openness and self-awareness as key components to belief change in social justice programs (Garmon, 2004) many studies did not reveal particularly significant shifts in candidates’ beliefs (Davis, 1995; Hyland & Heuschkel, 2010; Mueller & O’Connor, 2007; Larkin et al., 2016). In these studies, teacher candidates often had harmful meritocratic views about society or saw marginalized people through a deficit lens or teacher candidates struggled with understanding institutional oppression. Nevertheless, these studies did show that some limited development could occur.

Another major finding about these studies is that a vast majority of them focused on teacher candidates’ beliefs and not teacher candidates’ pedagogical practices. It is important to note here that while the authors frequently used the term belief, they did not clearly define it. (In a later section of this literature review, I will expand on the small body of literature that examines beliefs and cognitions about epistemic matters in the context of teacher education and social justice education.) The focus on teacher beliefs over teacher practices indicates the importance of new research that delves into candidates’ development of socially just teaching practices, which is central to the third research question in my study.
In anticipation of a forthcoming millennial teaching force, Castro (2010) conducted a review of 55 peer-reviewed published articles on the themes in pre-service teachers’ initial views on cultural diversity across three time periods (1986-1994, 1995-1999, and 2000-2007). While there was evidence that in more recent times pre-service teachers were more open to teaching a diverse student body, he also found that across all time periods pre-service teachers had a general lack of complexity in understanding multicultural issues (p. 200). Specifically, pre-service teachers had persistent meritocratic and individualistic views about education and society. They also had generic positive attitudes toward the incorporation of multicultural education into the classroom, yet Castro mentions that it may be because preservice teachers have become “more sophisticated in their use of racial etiquette” (p. 206). While some research suggests that preservice teachers of color specifically had more complex views of these social issues (Chizhik & Chizhik, 2005; Dee & Henkin, 2002) there is also evidence that shows that their views were also in line with their White counterparts’ views (Bakari, 2003). Castro (2010) also found that deficit views regarding students of color was a pattern in 1995-1999 and contradictory attitudes about diverse populations and social justice occurred between 2000-2007. In addition, pre-service teachers’ lack of tolerance for different cultural groups was only present in the 1986-1994 time period. Combined, these findings show that pre-service teachers’ exclusionary beliefs were less of an issue in more modern times; however, pre-service teachers still struggled greatly with developing complex and coherent multicultural social justice beliefs.

From a pool of 36 studies on trainings about pre-service teachers’ beliefs about cultural diversity between 2005 and 2015, it was found that a majority of studies found
positive shifts in participants’ beliefs due to a research intervention (Civitillo, Juang, Schachner, 2018); however, Han (2013) found that their participants did not develop dispositions to specifically correct social inequity. In the review, most shifts in beliefs were attributed to an experiential learning component with discussions about cultural diversity. In spite of the positive outcomes in a majority of the studies, Civitillo and colleagues found significant methodological concerns. Specifically, researcher bias could be in play—most evaluations were not blind, just a handful of studies had a control group, few studies measured the relationship between beliefs and teaching practices, and most analyses relied on only two data sources (p.76).

**Challenges to Promoting Social Justice Thinking**

Research on SJE has investigated various practices intended to prepare teachers for the task of teaching in more inclusive and socially just ways. Some of the instructional practices that emerged from these pedagogies include candidates engaging in introspective activities (Kumashiro, 2002; Smith, 2000), interviewing a person outside of their own culture (Mueller & O’Connor, 2007), and developing equity-focused teacher research practices (Philip, 2011). Consistent with Cochran-Smith and Castro’s reviews, in the above studies, each researcher found that teacher candidates continued to struggle to develop consistent socially just ideas despite their participation in these practices. In Kumashiro’s (2002) article, he used a framework that underscored the oppressive power of the repetition of privileged knowledge and practices. He found that teacher candidates would often rely on familiar knowledge, which hindered their engagement in anti-oppressive practices and beliefs. He also found that he too engaged in that form of repetition as a teacher educator. In Smith’s (2000) article, the researcher found that
teacher candidates’ personal backgrounds had a strong influence over their openness to multiculturalism despite their participation in self-reflective activities. In Mueller and O’Connor’s (2007) work, the researchers suggested that resistance, due to the uncritical nature of the White participants’ privileged social status, contributed to the ineffectiveness of a cross-cultural interviewing activity. In Philip’s (2011) article, he found that the focal teacher in his study did not consistently move away from student-blaming views. He theorized that this was due to the fragmented nature of ideologies (and epistemic thinking in general). Based on these patterns in teacher candidate thinking, it is clear that participants’ prior knowledge and beliefs, experience, and contextual factors contribute to the challenge of promoting consistent socially just dispositions. My study uses an epistemic cognition framework to more precisely capture ways in which these factors affect participants’ social justice thinking and development.

Neoliberal and individualistic beliefs present a significant challenge to adopting social justice (structural) thinking (Philip, 2011). Structural thinking critiques social structures and systems, such as the political, economic, or education systems, when making sense of social problems. This is in contrast to individualistic thinking which is sensemaking about social issues that places emphasis on the choices or characteristics of individuals and not structures. Whether one applies structural or individualistic thinking to social problems, these perspectives can help to expose ideological leanings. Teacher preparation programs that place an emphasis on diversity, inclusion, and equity seek to promote structural accounts of social issues because this pushes against dominant neoliberal beliefs that blame marginalized groups, in particular, for their social status.
Neoliberal sentiments are ever-present in the U.S. zeitgeist and in its very infrastructure (Giroux, 2015; Harvey, 2007). As a response to these damaging sentiments, social justice education programs aim to promote the critique of these beliefs, including the policies and systems that they create. Social justice pedagogies are intended to place value on the knowledge and voice of students and their communities. They promote critical thinking that calls the status quo into question. Moreover, many of them help students and their teachers to become civically active in order to better support communities. To successfully adopt these pedagogies teacher candidates must learn how to critique social problems in a way that draws attention to the structures that shape society. In this case, the use of structural or individualistic analyses of social problems serves as one indicator of ideological leanings. These kinds of statements also help to elucidate how consistent teacher candidates’ thinking is being applied. Research that examines the consistency in which TCs use ideological lenses is an example of researching epistemic cognition in action. Given the importance of identifying what methods and practices work in SJE, understanding how epistemic cognition is used by teacher candidates when thinking about social issues warrants investigation.

**Theoretical Framework**

In a review of epistemic cognition (EC) research and teaching *across domains* there was evidence to suggest that teachers’ epistemic stances could influence their pedagogical approaches (Maggioni & Parkinson, 2008). Many researchers have also found that robust examinations of the cultural and historical contexts of cognition can provide meaningful insights into the learning process (Brown, 1992; Lave, 1991; Moll, 1990). Coupled with researchers’ call for more equitable teaching practices (Kumashiro,
2000; Ladson-Billings, 2006) and reflective epistemic practices for TCs (Fives et al., 2017), it is clear that investigating teacher education through an epistemic cognition and cultural-historical activity lens could be a valuable pursuit for SJE researchers.

**Key Aspects to Perspectives of Epistemic Cognition**

Part of my theoretical framework is based on contextual theories of epistemic cognition that have emerged in recent decades. During the 1990s, based on overlapping philosophical foundations and research investigations among EC researchers, Hofer and Pintrich (1997) proposed that epistemological theories (epistemic cognition) are composed of four dimensions: (a) the certainty of knowledge; (b) the simplicity of knowledge; (c) the source of knowledge; and (d) the justification for knowing. Chinn et al. (2011) proposed an expansion of these dimensions to accommodate the contextual nature of knowing. Their expanded theory may have more power in predicting student learning or students’ cognitive approaches to epistemic tasks because certain tacit epistemic beliefs may become more salient in some situations than in other situations. As it relates to social justice education, contextual theories of EC could help to reveal which epistemic beliefs emerge as teacher candidates evaluate social situations. If researchers know these patterns of cognition then teacher preparation instruction could be better tailored to fit the needs of teacher candidates.

A related epistemic cognition theory that guided my investigation was Hammer and Elby’s (2002) theory of epistemological resources and epistemological frames. They argued against common perceptions of epistemic cognition as being static and called upon in consistent ways in different circumstances. They explained that it is possible for different knowledges and beliefs about knowing to be activated in new contexts through
what they term *epistemological resources*. Epistemological resources are aspects of a person’s cognition that can be “activated under various circumstances, sometimes appropriately, sometimes not” (Hammer & Elby, 2002, p. 176). When activated by a particular circumstance different types of knowledge become salient. These knowledge structures known as *epistemological frames* or *frames* can be coherent pieces of information or understandings about a concept (Hammer et al., 2005); however, if a different epistemological resource is activated about the same concept then a different frame may emerge which may or may not be consistent with the previous frame. This theory can help to explain research that shows that teacher candidates’ conceptions about social inequity are inconsistent and fragmented despite efforts to establish a consistent disposition (Mueller & O’Connor, 2007; Philip, 2011).

An example of the epistemological resources theory is found in the Rosenberg, Hammer, and Phelan’s (2006) study. In this investigation, children were asked to explain the geological rock cycle and the researchers found that students, in a disjointed manner, relied on formal terminologies, referenced experts’ descriptions, and used isolated facts to explain it. However, when the teacher asked students to “Start from what you know, not what the paper says” they were able to give much more complex and coherent explanations of the rock cycle. From this change, Rosenberg and colleagues suggested that students could shift between epistemological resources (i.e. an expert as the source of knowledge to students as sources of knowledge) and as a result different epistemological frames emerged (i.e. before the intervention, the knowledge was isolated after the intervention the frame that emerged was more coherent). Hammer and Elby’s theory can
inspire interventions that could better our understanding of how teacher candidates’ beliefs about social problems change under new circumstances.

**Epistemic Cognition in Social Justice Education**

Epistemic cognition research has gained some insight into explaining why dispelling prior conceptions can be a very difficult task (Chi, 2009; Chinn & Brewer, 1993). A reason that is of particular relevance to this study has to do with the contextual nature of epistemic cognition (Chinn et al., 2011; Hammer & Elby, 2002). In the present study, epistemic cognition will be used “as an umbrella term encompassing all kinds of explicit or tacit cognitions related to epistemic or epistemological matters” (Chinn et al., p. 141). In other words, epistemic cognition covers thinking and awareness that relates to knowledge and knowing (epistemic) or the philosophy of knowledge and knowing (epistemology). Historically, identifying people’s beliefs about knowledge, how it is produced, how it is justified, and how people may incorporate their epistemic beliefs into their own reasoning has been a major part of understanding scientific and mathematical thinking (Duschl & Osborne, 2002; Muis, 2004). As a response, researchers have sought to improve students’ epistemic evaluations by improving instructional practices in science and math classrooms. There has also been research that has investigated domain-general and domain-specific aspects of epistemic cognition (Hofer, 2000; Paulsen & Wells, 1998; Schommer & Walker, 1995); however, the frameworks and instruments used in those studies did not attend to expanded aspects of epistemic cognition nor did they provide rich qualitative analyses of how different epistemic cognitions are activated across numerous contexts. Nevertheless, there is evidence to suggest that supporting
relevant epistemic practices can strengthen people’s reasoning skills in a content area and support fostering expert practices in learners (Chinn & Malhotra, 2002).

Currently, there is only a small body of research that investigates the role of epistemic cognition outside of science and math in elementary through undergraduate settings. These studies often do not include epistemic tasks that laypeople typically engage in nor are they on topics that laypeople may already have strong beliefs about. Even fewer studies investigate epistemic cognition and moral reasoning, and when they do so they use Likert-style questionnaires (Bendixen et al., 1998), which reveals very little about everyday thinking that may shift in different contexts and social situations. Social justice thinking through an epistemic cognition lens remains an underdeveloped line of research. My dissertation seeks to contribute to that research.

Social justice education research that studies TCs’ beliefs is a well-documented line of inquiry (Cochran-Smith et al., 2015), but more investigations are needed to explore the landscape of epistemic cognition in social justice thinking. The body of research that addresses epistemic matters in SJE is largely theoretical and philosophical in nature. These works often recommend the broadening of candidates’ valuing or incorporation of marginalized groups’ experiences and ways of knowing (Cammarota & Romero, 2009; Scheurich & Young, 1997; Sleeter, 2000). This is an important issue in SJE research; in order to provide more humanistic and equitable education, teachers must go beyond familiar frames of reference, which can be embedded in hegemonic and Eurocentric assumptions about how the world functions and how it should function (Sleeter, 2001). Opening up the learning experience to different belief systems and ways of knowing is pedagogically and epistemically inclusive of diverse learners. However,
the area that is particularly understudied, and I wish to contribute to, is how teacher candidates’ cognitions and beliefs about knowledge emerge in thinking across different educational contexts and topics.

Some recent work has investigated the epistemic practices of teachers and teacher educators in relation to SJE. Feucht et al. (2017) and Fives et al. (2017) argue the importance of reflective epistemic practices for TCs. Specifically, they endorse a 3R-EC framework to help teachers match their epistemic practices to their *epistemic aims*—“a subset of goals people adopt, specifically those goals related to inquiry and finding things out” (Chinn et al., 2011, p. 142). They recommend that practitioners first reflect on the epistemic aims attached to a learning task (reflections on classroom practice); then engage in an internal dialogue to question their epistemic assumptions about the task and the broader learning context (reflexive deliberation); and, finally, take action based on the conclusions from earlier steps (resolved action) (Fives et al., 2017, p. 280). This framework and its application to SJE is still in its infancy. So far, regarding the epistemic practices needed to *teach* SJE, Lunn Brownlee et al. (2019) have shown that teacher educators appreciated the framework conceptually but they struggled with translating each component to their practices. EC research on teacher candidates could enrich new iterations of this framework as it applies to SJE.

The following studies involve TCs or new teachers as the participants of each study—although not all studies were explicitly centered on social justice. Silverman (2007) used a combination of questionnaires and ill-structured writing problems and found that teacher candidates’ high epistemic beliefs (such as learning being a gradual and effortful process) were tied to positive attitudes toward inclusion of disabled students.
into mainstream classes. The impact of teacher candidate attitudes and epistemic beliefs are especially important as more classes are mainstreaming students with disabilities. Silverman explained that this study, “provides a starting point for further exploration of teacher training interventions that facilitate pre-service teacher growth… and of the relationship of teacher attitudes and [epistemic] beliefs to student outcomes” (p. 49).

There is research that shows that there are correlations between epistemic beliefs and moral reasoning (Bendixen et al., 1998). In this study, using epistemic questionnaires, logical reasoning tasks, and moral dilemma scenarios, Bendixen and colleagues found that beliefs in simple knowledge, certain knowledge, omniscient authority, and quick learning explained variances in undergraduate educational psychology students’ responses to a moral dilemma questionnaire above other variables such as age, gender, and education. Those who had more sophisticated epistemic beliefs were shown to have higher levels of principled moral reasoning in the Defining Issues Test (Rest, 1979).

Mueller and Hindin (2011) gave teacher candidates vignettes of problematic teaching practices and had them trace their responses back to specific coursework and fieldwork experiences. They found that most candidates referenced their earliest education courses as a source of reference that they used to reason through the presented social problem. The participants, however, cited field experiences or personal experiences as sources of reference less frequently.

In Olafson and Schraw’s (2006) study, they used Likert questionnaire data and analyses of 24 teachers’ interview responses and essays on their teaching approach to investigate patterns between teacher epistemological beliefs (explicitly expressed) and
worldviews (tacitly expressed) and their teaching practices. They found that while many teachers had contextualist epistemological worldviews (closely related to constructivist approaches in education) guiding their educational philosophy, their teaching practices were unrelated to their epistemological worldview. The researchers suspect that the beliefs that teachers expressed may have been influenced by the constructivist approaches many teacher preparation programs promote. Moreover, the inconsistency between epistemological worldviews and teaching practice may be partially due to lack of experience and competing professional constraints.

In Wineburg and Fournier’s (1994) work, it was found that teacher candidates in different domains (history and physics) had applied contextual thinking in unexpected ways during a historical reasoning task; the physics participant reflected on the bigoted language and social context of Abraham Lincoln speeches and other texts in sophisticated ways as she made sense of the documents and assessed bias. Surprisingly, the history education major did not. In their article, Wineburg and Fournier reflected on the need for teacher educators to emphasize the importance of context when people analyze historical social issues.

Conducting further research in the ways epistemic cognition influences everyday moral dilemmas or pedagogical activities could be a boon to social justice education research. This type of work could lead to the development of specific metacognitive strategies that could help teacher candidates monitor their own cognitive processing (Flavell, 1979) in social situations. Or, teacher preparation programs could re-examine current models of social justice development and create new learning progressions—“successively more sophisticated ways of reasoning within a content domain that follow
one another as students learn” (Smith et al., 2006, p. 2)—that are specific to the development of social justice dispositions.

**Cultural-Historical Activity Theory**

In order to uncover the influences of the epistemic and social contexts that teacher preparation programs fostered, I applied a cultural-historical activity theory (CHAT) (Cole & Engeström, 1993; Engeström, 2001) analysis to some of my findings.

Historically, research on learning has been investigated in decontextualized ways. These studies, were often behaviorist psychological experiments or were experiments on human memory and metacognition. They were typically conducted in laboratories, which do not mimic most learning contexts, and they produced fleeting results. As a response to these limitations, Vygotsky and his successors sought to factor in the cultural and historical contexts in which an activity system (such as the process of learning) exists (Scribner, 1985; Vygotsky, 1986). Cole and Engeström (1993), prominent figures in the development of CHAT, argued that cognition is a distributed activity rather than an isolated phenomenon in one person’s head; culture and history work to distribute what is known and the contexts that shape human behavior. They defined activity systems as, “historically conditioned systems of relations among individuals and their proximal, culturally organized environments” (p. 9). In the CHAT framework, the relations within the activity system is elucidated. The framework is often visually represented as a triangle with sides and corners that signify the interconnected components of the activity system. The basic components include:

- subject (the person or group in focus)
- object (the goal of the system)
• rules (explicit and implicit rules and norms found in the overlapping contexts)
• community (others involved in the system)
• division of labor (how tasks and responsibilities are divided by individuals)
• tools (virtual or material artifacts that are used to achieve the defined object)

An analysis of these components helps to reveal the tacit and explicit influences and the contradictions that shape an activity system. This robust analysis of an activity system is a more humane approach to conducting social science research (Roth & Lee, 2007). This framework helps to reveal that people (and the activity systems they are involved in) are not simple and static but are complex and evolving. For example, Ellis (2011) explains that CHAT can improve investigations that generate theories on practice because CHAT analyses reveal the contradictions in an activity system, thus illuminating new pathways for development in participant and researcher thinking, practice, and theory-building. For Roth and colleagues (2004), CHAT was useful in drawing out the changing nature of social identities over time in an urban school environment with various collaborating stakeholders with competing motivations, including a new teacher, student teachers, researchers, and students. Meanwhile, Gutiérrez and Rogoff (2003) used the framework to explain that the cultural regularities in the learning practices of some students are just one of many historically influenced sets of learning practices that students use as opposed to their cultural learning practices being an unchanging trait-based phenomenon. As is evident by these studies, a CHAT analysis can provide education researchers with greater
insight into how the contexts that shape an activity system influence particular ways of thinking.

**Epistemic Cognition Research Methods**

Researchers have sought to capture the elusive yet ever-present epistemic cognition. Research methods for EC are varied, as the construct itself has varying definitions and theories that drive it. A common approach is the use of quantitative data from Likert-style questionnaires (Hofer, 2000; Schommer, 1990; Sinatra et al., 2003) to show the existence of the construct. These instruments have allowed the measurement of EC to appear relatively simple. However, major drawbacks to these questionnaires include the fact that they are based on self-reports, which can produce low reliability (Mason, 2016). The challenges a person experiences when assessing and quantifying their own thinking can also reduce the efficacy of EC questionnaires (Greene et al., 2008). In addition, the questionnaires are static measurements and cannot provide much insight into the ways EC may change or develop over time. Other researchers have used more qualitative methods such as vignettes, which avoid the issues found in the previously described scales (Barzilai & Weinstock, 2015; Kuhn et al., 2000). Chinn et al., (2011) support methods of investigation that go beyond questionnaires because other methods can be more reflective of the context-specific nature of EC. In fact, they argue that:

Combining different research methods is likely to be a productive way to gain a fuller picture of the complexities of epistemic cognition across different situations. Because EC encompasses many interrelated cognitions on a wide range of topics, it will likely be impossible to construct any single measure or interview protocol that captures all aspects of EC simultaneously. (p. 163)
My study was designed to capture epistemic cognition across contexts and through related cognitions such as causal reasoning about social problems. In order to support that form of investigation and to provide rich answers to my research questions, I used a range of largely qualitative methods that capture epistemic cognition in written and spoken data. The following chapter outlines the methodology and analysis I used to gain insight on the role of epistemic cognition in social justice thinking.
Chapter 3: Methodology

In this chapter I explain the research methods and data analysis I used in my investigation of teacher candidates’ social justice thinking. I begin by discussing what drew me to this line of inquiry and how my positionality may have impacted the study. Next, I describe the participants and the research site where the study took place. I also explain why the site provided a fitting context for the investigation and I include the findings from my preliminary observations. Then, I describe the data and the methodological procedures and analysis. Finally, I describe the coding and analysis as it applies to each research question.

Positionality

My interest in researching teacher education came about because of the public discourse in the U.S. in the mid-2010s. Prior to my entry in the doctoral program there was increased media coverage on denialism and the difficulties of initiating belief change about controversial issues, particularly in science. In the U.S., issues such as global warming and vaccinations had become divisive politicized topics. I began the doctoral program seeking to understand how people can change their minds about their strongly held beliefs. My early research was at the intersection of science education and epistemic cognition. This work helped me to see important variables that were in play as people made sense of scientific knowledge, such as people’s beliefs about how knowledge is created and what do people count as reliable knowledge. As the years continued, the public discourse began to center around issues of racism and poverty in the U.S. I found the discourse quite troubling and it mirrored the hegemony that I had learned about in my master’s and early doctoral courses. I began to see parallels between people’s rejection of
some scientific knowledge and the rejection of social knowledge, specifically the existence of systemic racism. I was curious to find out what kinds of evidence of systemic racism could a person find to be compelling. Since a major aspect of urban education is understanding that racism exists and it has a major influence in the education system, I sought to conduct my study in a teacher education program with a focus on urban education.

The large presence of White women in teacher education programs and in the study is consistent with research that shows a high proportion of the teaching force is comprised of White women (National Center for Education Statistics, 2018). Given that I am a Black male researcher who conducted observations and interviews on the social justice thinking of a majority White female cohort, this may call into question how the participants’ thoughts and actions could have been influenced by my identities. Some have stated that those participants would likely provide me with socially desirable answers; I argue that because the site is in a program that has a specific emphasis on social justice, the participants would likely have the same inclination to provide socially desirable responses to a researcher from any demographic background. Unexpectedly, throughout the study, I found that some participants were quite candid about their views on social issues including race relations. They even made statements that would not be considered socially desirable. This was an indicator to me that they felt comfortable enough to be open in their responses. I also designed the study in a way that would allow me to collected data from many sources including group discussions, online forum posts, focus groups, interviews, and surveys. This was done to provide the participants with
additional contexts and social circumstances to voice their thoughts in a way that could make them feel comfortable.

Finally, nearing the end of my observations I asked a participant, who was very vocal throughout the study, how was I viewed by the other participants. He explained that I was seen as “another student” in their classes. I also heard from an instructor who was teaching many of my participants that I was well-liked by the participants. Based on this, and my personal interactions with participants, I have the impression that I was seen as a fellow student who was conducting a study similar to the one they were expected to carry out in their own clinical placements. In addition, I was a Black peer who was a neutral listener who was interested in their thoughts about their experience in the program and on issues of social justice. This may have allowed them to feel that they could express their ideas without consequence or judgment. On many occasions participants made it known that they hoped their experiences and concerns would be used to improve the school’s urban education program.

Participants

The participants were students in a teacher preparation program that was housed in a school of education (SOE) in a major mid-Atlantic public university in the United States. The university will henceforth be called Mid-Atlantic State University (MSU). In 2017, the main campus had over 49,000 enrolled students. The campus’ demographic breakdown of enrolled students was 39.8% White, 23.3% Asian, 12.2% Hispanic or Latino, 7.82% Black or African American, and 2.79% two or more races. In the fall of 2017, the SOE had a total of 1,023 students in its doctoral, master’s, and non-degree programs. Non-White students made up 248 of those enrolled at the SOE. There were
768 female students and 255 male students. The present study included a total of fifteen participants (all names are pseudonyms). The demographic breakdown of the participants study is nine White women, three Asian women, two Hispanic or Latina women, and one Asian man.

The teacher preparation program included students who had previously graduated college (post-baccalaureates) and were returning to become teachers and it included undergraduate students in a five-year program who were interested in becoming teachers. The post-baccalaureates would earn a master’s of education degree and an initial teacher certification. Meanwhile, in the five-year program, students would earn a bachelor’s degree in their discipline, a master’s of education degree, and an initial teacher certification. As undergraduate students completed the requirements for their major, they would begin introductory coursework in education during their sophomore and junior years. Undergraduates and post-baccalaureates began taking their master’s courses together during the first summer after entry into the program. In this study, all participants were in the early education (K-6th grade) concentration and seven of them were attaining a special education certification.

**Research Site**

The teacher preparation program had a special emphasis on urban education and social justice. The program was redesigned from its earlier incarnation by professors who found a need for all future teachers to be well-versed in matters affecting students, schools, and communities in urban environments. The emphasis on these issues was also a proactive response to state policy changes in teacher education certification requirements. The school of education works closely with partner districts throughout the
state to provide teacher candidates with opportunities to connect with the local communities and to conduct clinical fieldwork. The TCs completed student teaching part-time during the second phase of the program then full-time during the third phase. They were assigned to partner schools that serve economically, racially, ethnically, and linguistically diverse students. In the school’s website it is explained that the program aims to prepare teacher candidates to do the following:

- Develop meaningful understanding of diverse students and their experiences and communities and the social, economic, historical, and political dimensions of urban settings and schools;
- Effectively teach diverse students, including those from historically marginalized linguistic, cultural, and economic backgrounds;
- Identify and disrupt instances and patterns of discrimination and marginalization, and develop their students’ critical and active citizenship capacities;
- Balance constructivist, student-centered approaches with explicit instruction and scaffolding;
- Deeply understand their disciplines, research-based current/best practices in their disciplines, and student learning in their disciplines; and
- Be caring, competent, rigorous, and reflective practitioners.

In the five-year program, Introduction to Education was a required course in which students had to complete 20 hours of observations in a Pre-Kindergarten-12 setting. When students applied to the program they were officially admitted in their junior year and begin professional coursework in the summer between their junior and senior year. Upon entering the program, candidates would navigate the courses in a cohort model. In other words, teacher candidates in the same concentration who entered the program at the same time would take the same courses with one another throughout the program. The participants in this study were all a part of the early education strand of the program and as such, for their clinical fieldwork, they were placed in partner schools that
served students from pre-K to 6th grade. In addition to this strand of the program, some teacher candidates were in the special education concentration. They took separate courses that focused on matters relating to teaching students in special education programs.

After the completion of their first semester (the initial summer professional coursework) the remainder of the coursework is divided into four phases, which correspond with the last four semesters of the five-year program and the post-baccalaureate program. During each phase teacher candidates completed clinical placement requirements in partner school districts. Phase 1 of the program consisted of two consecutive half-credit courses each lasting seven weeks: Urban Education I and Teaching Emerging Bilinguals I. Phase 2 included the second part of this course sequence. The professors from Phase 2 were the same professors from Phase 1. These courses were arranged in this fashion in order to allow teacher candidates to apply social justice themes they were learning in their courses to fieldwork experiences which increased in length and complexity in preparation for student teaching.

I was granted permission by one of my advisors to observe her early education Urban Education class. The teacher candidates were told that I was a doctoral student in the school of education. They are also made aware that I had taught educational psychology at the SOE in the past. While the participants were initially selected from convenience sampling, this population proved interesting to study because of research that shows that early childhood teachers are particularly avoidant of addressing race issues with their students despite the racialized and racist interactions their students experience (Boutte et al., 2011). Oftentimes, these teachers think that children are
innocent and unaware of issues regarding race and so they must shield their students from learning about race and racism. These beliefs make the teacher candidates from the early education program worthy of study because their avoidance of recognizing race or racism may be particularly harmful to their students since students are just beginning to develop their identities and their relationship to schools and teachers.

During my four weeks of preliminary fieldwork, I interacted with the class as a whole on three occasions. The first time, I gave the candidates a brief description of my research interests. I explained that I was interested in teacher education programs and that I wanted to observe the discourse in their classroom and develop ideas for new activities or methods of instruction. The second interaction was during an informal class discussion when I recommended a TV show to watch. My final interaction was during the last class session of Urban Education I. The professor spoke of the importance for there to be a sense of closure at the end of a class and she spoke of the positive relationships that had been established in the course and that she looked forward to teaching them again. I echoed those sentiments and mentioned that it was great to see how open the class was in discussing these topics and that observing them had given me some ideas for my research. From this, the participants may have gleaned the following: I value openness from teacher candidate discussions and their normal interactions had been helpful for me as a researcher. This may have further eased any anxiety they had about being observed.

At the start of Urban Education II, the following semester, I explained to the class that my research investigation was on teacher candidates’ learning process regarding social issues. I was able to recruit 15 participants for the study out of the 25-student cohort. The participants were aware that the professor was an advisor in the study but it
was made clear to them that she would not have access to interview data and that their statements would be anonymized when presented.

I conducted preliminary fieldwork in Urban Education I during Phase 1. The study took place during Phase II in Urban Education II and Teaching Emerging Bilinguals II. The TCs were in the early childhood education strand of the program. They were candidates in the five-year program or they were post-baccalaureate students. For my study, I observed this cohort of students in two half-credit courses (Urban Education II and Teaching Emerging Bilinguals II) during the spring 2019 semester. Each course was seven weeks long and were taken back-to-back. In the previous semester the participants took part one of each course with the same instructors.

**Justification of Setting**

The Urban Education II course explicitly addressed issues of historical and structural inequity along with the assets and challenges found in urban schools and communities. This provides teacher candidates with frequent opportunities to grapple with issues of inequity, which provided me with rich sources of data that were relevant to epistemic cognition and thinking about social problems. The Teaching Emerging Bilinguals II course was also fitting for my study because its main objective was to “build a toolkit of general and content-specific pedagogical practices that address classroom needs of emerging bilinguals in schools. The course is to critically examine, model and perform best practices inclusive of emerging bilinguals, in content-specific areas” (Teaching Emerging Bilinguals II Syllabus, 2018). This setting provided an important context to observe the transformation of knowledge into potential instructional practice.
These courses included classroom activities of high epistemic demand that were tightly linked to students’ ideas and beliefs about social problems. Specifically, the Urban Education II course required that students conduct a small-scale action research project in the school where they do fieldwork. Action research requires the researcher, the teacher candidate in this case, to investigate a problem and become a participant in her own study and implement a solution to the problem that she is investigating (Mills, 2000). The tasks of identifying an urban education-related problem in schools; compiling appropriate literature to inform the investigation; identifying data sources; collecting and analyzing data; and creating an intervention to solve the problem that was identified, are all tasks of an epistemic nature related to social problems—so they are central to my investigation.

The Urban Education II course also had an “Educator Inquiry” project in which teacher candidates would shadow either a teacher or a student and ask them questions regarding instructional strategies, curricular choices, classroom engagement, among other questions. Teacher candidates must analyze the data they collected in light of the course readings and determine their findings. These tasks include cognitive and metacognitive components. Participants’ analyses of teachers’ reasons for instructional and curricular choices provides unique layers of thought in need of investigation.

The Teaching Emerging Bilinguals II course included two assignments that provided me with further data that were relevant to the role of epistemic cognition in reasoning about social problems. The course included an assignment in which teacher candidates compiled five pedagogical resources that were specific to working with emerging bilingual students in the teacher candidate’s content area. The teacher candidate must explain what makes each resource valuable and how they could incorporate the
strategies they found in the resources into their own instruction. The second assignment required that TCs identify the ways that they incorporated matters of language, culture, and power into their lesson planning. Both of these assignments provided further cognitive data points to triangulate evidence of any epistemic patterns that may have emerged in the study.

In order to determine the suitability of the Urban Education II course as a setting for my dissertation, I conducted fieldwork in both courses of the Urban Education sequence. I observed the participants of my study as they engaged in the first course of the sequence. I was able to establish myself as a familiar presence in the classroom. The teacher candidates were aware of my position as a doctoral student who had previous teaching experience in the introductory educational psychology course of the five-year program. From my observations I was able to get a strong idea of the classroom climate and the strengths and challenges that the teacher candidates faced as they grappled with issues on the topic of urban education. The findings from this preliminary fieldwork will be discussed in the next section.

**Preliminary Fieldwork**

I observed the Urban Education I class between September and October of 2018. The class met once per week for seven weeks. I was able to observe the cohort for four class sessions. The Urban Education I class had 25 teacher candidates. During my observations I took field notes in each class session to capture important moments in group discussion and social interactions (Patton, 1987). I also collected printouts that were given to the class by the professor. Lastly, I was given access to the online classroom forum, where I could see candidates’ weekly responses to the readings,
previous class discussions, and their own personal reflections in light of the readings. From these data I noted themes that related to participant thinking about structural inequity. Across most class sessions, I saw that many teacher candidates shared their beliefs about social issues and included structural analyses of educational problems but with some limitations. Moreover, during concluding class discussions, many candidates expressed that the learning in the course was meaningful and upsetting in generative ways. In the following paragraphs I provide examples of these themes.

**Sharing Beliefs about Social Issues**

Many candidates had been willing to openly share their reflections on social issues related to urban education. Most instances centered on issues that arose in their placement schools. These discussions were often about students who belonged to marginalized groups. When analyzing a social problem, some candidates would cite reading assignments that discussed the cultural resources that students of various backgrounds could bring into the classroom. Candidates at times indicated that they were committed to making students feel included in the classroom. In a weekly online reflection one student stated:

As we discussed, focusing on the assets of each student and their cultural backgrounds versus the deficits they bring in will help keep a positive environment. Having these discussions in such an open format has really challenged me to take a look at my own biases, even ones that I’m not proud of.

Some candidates questioned specific activities or thinking that they had engaged in in the past. For example, one student spoke about a problematic school activity that she engaged in during her youth; teachers required students to learn about a different culture and then dress up like people who were a part of that culture. The candidate reflected on
that event as an example of cultural sensitivity gone wrong. She lamented the troubling obliviousness that she and her school showed in that activity.

It is likely that the design of the Urban Education I course helped to support the open dialog that I observed. For example, during each class session all students engaged in a fishbowl discussion activity in which they responded to prompts generated by the designated facilitators for the day. During these fishbowl discussions half the students were in the center of the classroom and they addressed the prompt questions. The rest of the class only observed the discussion and took notes to use for their weekly forum posts. Once the conversation had been exhausted candidates from the outer group switched to the center circle and began discussing topics that were created by their designed facilitators for the day. This format allowed a majority of candidates to regularly contribute to the discussion yet this structure prevented a flood of ideas and opinions from overwhelming the class discussion. The questions that the facilitators posed for discussion were closely linked to the readings and required candidates to critically reflect on urban education and societal issues, as requested in the syllabus. Also, the professor, a White woman, would regularly include personal anecdotes about the transformations she had undergone in her commitment to teaching toward social justice. The professor’s candor may have inspired candidates to be open about their experiences and observations. In addition, her personal stories may have signaled to the candidates that development in teachers is not instantaneous but rather an ongoing process.

**Structural Analyses with Limits**

Due to the professor’s focus on the structural influences of social inequity in schools, candidates’ discussions were often based on school-wide or society-wide
problems—not individualistic explanations. Some candidates would shift between various levels of analysis as they reflected on social problems in urban education. Unlike research that shows that teacher candidates have a difficult time applying a structural lens to social issues (Cochran-Smith et al., 2015) the candidates here did not frequently blame students for poor academic outcomes. Some would unpack the circumstances that created poor academic outcomes. An example of this was when a candidate critiqued the bureaucratic failure of a school policy that was enacted to better manage situations with “difficult” students. In her analysis of the problem, the TC began by explaining the behavioral issues a particular student exhibited then she explained and critiqued the dubious policy that was set in place to manage future situations with that student, then the teacher candidate described the way the policy broke down between various levels of bureaucracy. The teacher candidate’s critique of the social problem was spontaneous and demonstrated that teacher candidates can utilize structural thinking and it can occur spontaneously. In this case, her reflections on a particular social problem went beyond blaming students, instead she reflected on the role of policy and bureaucracy.

While many conversations included critiques of systemic oppression (especially found in schools), the teacher candidates did struggle to have a cohesive application of an equity lens on educational matters. I found the cohort at times had difficulty becoming race conscious, which is a pervasive issue in teacher preparation programs (Ullucci & Battey, 2011). An example of this is when a class discussion that was specifically centered on race and racism quickly devolved into a discussion on sexism and homophobia in schools at the exclusion of race. The professor had to interject and guide the teacher candidates back to discussing issues of race and racism.
In another example, the cohort struggled with moving beyond a teacher-as-savior framing of the profession (Ladson-Billings, 1998). Despite extensive conversations about the influence of structural inequity, members of the cohort were enamored with notions of authoritarian teachers in urban schools who worked to help students rise above systemic oppression. An example of this, was when the candidates watched a clip from a film about a strict “no excuses” White male teacher who began teaching ethnically diverse youth in an urban school. The film was based on a true story. In the film, the school eventually received national attention for having top academic students because of the strict teacher’s influence. Teacher candidates were then asked to reflect on what they had just seen. The candidates openly expressed their conflicted ideas and feelings. Many liked the approach that the teacher in the film took and they thought that taking a “no excuses” stance to teaching urban youth could be a fruitful approach to help marginalized students move beyond systemic oppression. Candidates stated that this approach would make students focus on their academics and not external factors that were presumably out of their control. This thinking implies that students have full control over their futures and simply need to focus their attention on academic success. However, candidates also realized that that stance was not helpful and it ignored the socio-economic forces that marginalize youth in urban schools and reproduce inequity.

The candidates’ conflicting opinions about structural inequity and teaching was also evident when they reflected on ways to teach students in urban schools. On many occasions in the classroom, the candidates would struggle to spontaneously come up with specific teaching practices that would be consistent with the social justice concepts that they had learned. They expressed sentiments about wanting to be inclusive but they had
difficulty coming up with ideas beyond multilingual signage and food exchanges in schools.

**Productive Anger**

During the final two class sessions, with a few exceptions, students were in agreement about the importance of urban education in teacher preparation programs. Many students expressed that they felt angry about the social inequity that had been revealed to them in this course. As they expressed their emotions, they noted that their anger had not brought about complacency or defeatist attitudes, but it had empowered them to make changes in schools and in society. This productive anger could play a key role in designing effective instruction for teacher candidates in equity-focused programs.

From my preliminary observations, I was able to identify the extent to which teacher candidates were willing to have open discussions on social issues. I witnessed important limitations to their structural analyses. And, lastly, I saw the influence of emotion and how that could potentially inspire a strong sense of teacher self-efficacy. From my preliminary fieldwork, I saw that this cohort and teacher preparation program offered promising sources of data that would shine a light on the role of epistemic cognition as candidates reasoned about social problems.

**Methodological Approach**

There is evidence that a person’s ideas about a given topic may change depending on contexts (Hammer & Elby, 2002; Philip, 2011). In other words, people do not operate using a unitary theory but instead they have numerous, sometimes conflicting, concepts that shape their knowledge. This calls for research methods that explore thinking in various contexts (Chinn et al., 2011). In the present study, I used a case study approach
because it can allow the researcher to explain and describe a case (i.e. teacher candidates’ thinking about social justice and knowledge) that is present in a bounded system (i.e. urban education teacher preparation program) (Creswell, 2014; Stake, 1995; Yin, 2006). Multiple data sources and contexts are used in this approach to elucidate the answers to the research questions. Since the urban teacher preparation program provided multiple contexts and copious data that could help to explain TC thinking, I felt that the case study approach was fitting. In the following paragraphs I outline and justify the data collection methods I used in this study.

**Data Collection**

Research on epistemic cognition has historically used Likert questionnaires to investigate participant thinking and their beliefs about knowledge (Mason, 2016). Since some researchers have describe EC as multi-dimensional and contextual, they have called for methods that go beyond questionnaires—methods that can capture epistemic thinking in context and in naturalistic circumstances (Chinn et al., 2011). Based on these recommendations, my data collection involved many methods: one-on-one interviews with participants and instructors, field notes, written and spoken verbal data from each class session and assignment, document collection, think aloud protocols, focus groups, and surveys. The mix of data sources I used captured thinking about epistemology and social justice across: time (instances throughout a full semester), social contexts (one-on-one, group interactions, and teacher-student interactions), classes (Urban Education and Emerging Bilinguals courses), levels of specificity (general beliefs and beliefs applied to specific problems), and topics (e.g., pedagogical concerns, societal problems, different forms of discrimination, etc.).
In the study, I used interviews to gain direct insight into the thinking of relevant parties (Patton, 1987). Sometimes after a class session I would conduct informal interviews with students to develop further insight into an experience that they had previously discussed. I also had informal interviews with the instructors of both courses to help triangulate my observations. I was able to directly interview twelve of the fifteen participants (ten individually and two as a pair). I used semi-structured interviews (Merriam, 2009) in order to uncover biographical information about the participants and to gain more data that could speak to the participants’ thinking, learning, and experiences as it relates to social justice and epistemology.

During my observations I took field notes in each class session to capture important moments in group discussion and social interactions (Patton, 1987). I collected class discussion data via tape (audio-) recording (Patton, 1987). I also collected weekly online forum responses, class assignments, and printouts from each course (Martinez et al., 2012) in order to identify epistemic and social justice thinking across various contexts and to possibly trace the origins of participant verbal data and thinking practices. The data I collected was during one spring semester in two seven-week courses. My audio recordings totaled to 71 hours of whole class and group discussions, 12 hours of one-on-one interviews, 5.5 hours of audiovisual screencapture recordings, and 2.25 hours of focus group data. I collected written data that totaled to 129 individual weekly forum responses, 56 individual assignments, and 93 reading reflections and class “exit ticket” submissions.

My data collection included a think aloud protocol. Think aloud studies have been shown to provide insight into epistemic thinking in action during computer-based tasks.
(Barzilai & Zohar, 2012; Hofer, 2004; Mason et al., 2011). In contrast to Ericsson & Simon’s (1998) think aloud protocol which mainly draws out procedural aspects of participant thinking, I employed Chi’s (2009) verbal analysis think aloud technique to draw out the epistemic justifications and beliefs that guide participants’ thinking during a practical pedagogical activity. This was done to simulate a more naturalistic and contextualized thinking activity than that which could be found in a Likert-style questionnaire.

I incorporated focus groups because “social desirability or a tendency to impress the interviewer may be diminished by the support of peers” (Vaughn et al., 1996, p.19). In addition, “the goals are to conduct an interactive discussion that can elicit a greater, more in-depth understanding of perceptions, beliefs, attitudes, and experiences from multiple points of view” (p.16).

Finally, initially pre- and posttests surveys were embedded in the study as a mixed methods technique to test the learning that may have occurred (Creswell, 2014) from an action research assignment. However, due to the small sample size it was not possible to make any generalizable conclusions so instead the surveys were used as an additional data source that could speak to participants’ beliefs and shifts in beliefs in general as opposed to shifts that were a result of their action research assignment. In the next section, I outline the procedure used for each data collection method.

Procedure

Spoken Data

All data collection happened between January 31, 2019 and June 4, 2019. I audio recorded the spoken data (Chi, 1997; Patton, 1987) from interviews, focus groups, and
whole class and group discussions in the Urban Education II and Teaching Emerging Bilinguals II classrooms. I purchased nine portable audio recording devices and during interviews and focus groups I placed two recorders in a central location between each group of speakers. Two recorders were used in case of a technical problem occurring with one of the devices. In each class session, I placed one recorder in a central area of the classroom in order to capture the voices of the instructor and all the participants during whole class discussion. During moments in which the instructor-initiated group discussions, I placed at least one audio recorder with each group and ask that each candidate speak their name into the device at the start of the discussion and I would ask that a candidate be responsible for making sure the device remained in a central location within the group.

**Written Data**

All written assignments for both courses are listed in Table 1. To collect this written data, which include candidates’ explanations and justifications of their thoughts and actions (Chi, 1997), I accessed the online classroom platform. Teacher candidates used this platform to submit their forum reflections and assignments. In some instances, instructors had to send me electronic or hardcopy versions of the submissions. The written data also include the field notes that I took either during or immediately after class discussions, interviews, think alouds, and focus groups. I took field notes to mark critical moments and statements that could help to answer my research questions (Patton, 1987).
Table 1: Data Collection Activities

<table>
<thead>
<tr>
<th>Course</th>
<th>Original Class Activities</th>
<th>Field Notes</th>
<th>Intervention Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Education II</td>
<td>Weekly online forum posts (written)</td>
<td>Observations of spoken and written data that are relevant to answering each research question</td>
<td>Focus group (on different forms of discrimination) (spoken)</td>
</tr>
<tr>
<td></td>
<td>Mini-action research project (written)</td>
<td></td>
<td>Pre- and post- mini-action research questions: Cause of problem? Solutions to problem? (written)</td>
</tr>
<tr>
<td></td>
<td>Educator inquiry project (written)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group discussions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whole class discussions (spoken)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Emerging Bilinguals II</td>
<td>Reading reflections (written)</td>
<td>Observations of spoken and written data that are relevant to answering each question</td>
<td>Verbal analysis method when doing lesson planning task (spoken and written)</td>
</tr>
<tr>
<td></td>
<td>Annotated resources list (written)</td>
<td></td>
<td>Screen capture software (visual)</td>
</tr>
<tr>
<td></td>
<td>Lesson plan analysis (written)</td>
<td></td>
<td>Semi-structured retrospective interviews (spoken)</td>
</tr>
<tr>
<td></td>
<td>Group discussions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whole class discussions (spoken)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. This table shows all the data collection methods that were used for this dissertation.

The Original Class Activities are activities that were already a part of the course syllabus. The Intervention Activities are all new activities that were produced for this study. Field Notes were used to indicate any written or spoken data that were relevant to answering each research question.

_intervention Activities_

In addition to the course assignments and tasks that were already a part of the curriculum for Urban Education II and Teaching Emerging Bilinguals II, I added three interventions or changes to candidates’ routine in the teacher preparation program. These
interventions were made to further assist me in answering the three research questions I posed at the outset of the study. The changes include the addition of:

- a focus group session
- a pre- and posttest survey for a small-scale action research assignment
- interviews
- think aloud protocol.

Below, I will explain the changes and why they were included.

**Focus Groups**

The first change was the addition of a focus group session with the participants. Thirteen participants were able to contribute. For the focus group the participants were randomly divided into three groups (two groups of four and one group of five). Each group had to answer questions about a particular form of discrimination. They were randomly assigned racism, sexism, and linguicism. I explained that the purpose of the activity was to get their perspective on these issues. I asked that all participants answer all questions if possible. I handed out a piece of paper to each group with questions 1-3 (as seen below). Once a group had finished discussing those questions, I gave that group another piece of paper with questions 4 and 5. The focus group session lasted approximately 45 minutes. The questions were the following:

1. Have you ever witnessed discrimination or bias based on *(race/sex/language use)* in your school placement?
2. What were the signs that this was discrimination or bias?
3. Was it easy for you to tell that it was discrimination or bias? Why or why not?
4. What has impacted your understanding of (race/sex/language)-based discrimination the most and what did you learn from that experience?

5. What made it impactful?

I designed these questions in order to analyze the epistemic standards the participants used to evaluate instances of discrimination/bias. In addition, they would allow me to see the biggest impact on their ideas about that particular social problem and why it was impactful. The answers to these questions provided me with an idea of the types of evidence that was compelling to the participants. I included three different forms of discrimination in order to see if there could be trends or differences in participants’ evaluations.

**Surveys**

The second change I made was also to the Urban Education II course. I conducted an electronic pre- and posttest for their mini-action research project. The mini-action research project was already a part of the original course assignments. For this project, teacher candidates were asked to initiate a small-scale action research study in their clinical placements (See Appendix A). During the second week of the course, the professor gave an explanation of action research and answered lingering questions candidates had about the project. The professor explained to the students that they should avoid research questions that would negatively frame the students in their study. For example, participants should focus on “what students are doing” or “why are they doing what they’re doing” rather than framing students as the problem. On a few occasions the professor mentioned that identifying a problem-of-practice in the classroom would help to keep the project manageable given the six weeks participants had to work on it. At the
conclusion of this discussion, candidates were sent an electronic worksheet with open-ended questions regarding their action research investigation (See Appendix B). The worksheet asked that participants write the problem-of-practice they wished to study, their research question, data collection methods, and possible interventions.

In the second section of the worksheet, which was developed by me, participants were asked more detailed questions about their study. These questions were developed in order to reveal what causal explanations to authentic school-based social problems. The pretest questions were:

1. Please explain a bit more: What problem do you hope to study?
2. What do you think might be the cause of this problem? Why do you think that?
3. What might be the best ways that this problem could be solved? Give some suggestions and why you think these solutions could work.

On the last day of Urban Education II participants electronically submitted the written portion of the action research project. At the end of the last class, participants were given time to complete an electronic open-ended survey about their current ideas about the problem-of-practice they investigated. The questions that participants were asked were determined by a logic tree structure in the survey design. Participants were asked: “Have your ideas about the cause of the problem you investigated for your mini-action research project changed in any way? Why or why not?” If their ideas had changed, they were presented with the following statement: “You said that your ideas about the cause of the problem you investigated have changed. Why did they change?” Those participants were also asked, “What do you now think might be the cause of the problem you investigated? Please explain.” Followed by, “What do you think might be
the best ways this problem could be solved? Please give four suggestions and explain why you think these are the best solutions.”

Finally, for the participants whose ideas had not changed after conducting action research, they were asked to respond to the following: “You said that your ideas about the cause of the problem you investigated did not change. How do you think your original ideas were confirmed? Please explain.” These posttest questions were included to help me pinpoint what experiences may have elicited a change in the participants’ beliefs and in what ways did these changes occur. The why questions provided insight into participants’ justifications for their beliefs.

**Interviews**

The third change is the addition of interviews (Chi, 1997) to the participants’ weekly routines. Most interviews were informal or semi-structured (Drever, 1995) and would, respectively, last approximately 15 minutes or 45 minutes. I conducted semi-structured interviews (See Appendix C) with twelve of the fifteen participants. I designed these interviews to gain a better understanding of participants’: (a) biographical history; (b) reasoning behind the choices they made in their action research project; (c) learning experience in the teacher education classes and their clinical placements; (d) beliefs about social issues that relate to urban education; and, (e) methods for self-guided learning about social issues.

**Think Aloud Protocol**

My final change was the addition of a verbal analysis think aloud protocol (Barzilai & Zohar, 2012; Chi, 1997) for four focal participants. This protocol was conducted at the end of the semester after courses had ended and was done over a one-
week timespan. The TCs were given spoken instructions about the activity they were going to participate in (See Appendix D). They were given up to one hour to design a novel one-day lesson plan within a larger six-day unit. They were asked to simply note key pedagogical moments during the six days but to develop a lesson plan for only one day. The participants were allowed to select any subject area and any unit topic. The lesson was intended to be hypothetically used for their clinical placement students. The teacher candidates were also free to use the internet to help them in the process. They were asked to state everything that came to their mind while doing the activity such as the reasoning behind each choice they made or perhaps their thoughts on a website they visited. This think aloud activity was done on a laptop that was provided to the participants. Screen capture software (Camtasia) was used to record the audiovisuals of the computer screen and the participants’ speech. Once the participants felt they were satisfied with their lesson plan they were asked to give a spoken overview of the lesson plan. At the conclusion of the activity, I conducted a semi-structured retrospective interview (See Appendix E) (Barzilai, 2017; King & Kitchener, 1994) to better understand the participants’ thoughts and actions during the activity. The verbal analysis think aloud protocol was used to provide an in-depth look at teacher candidates’ spontaneous thinking and actions while engaging in a simulated pedagogical activity.

Below I discuss the analyses I used in the study.

**Data Analysis**

For my analysis, I needed an analytical method that could examine various forms of verbal data and help reveal relevant cognitive thinking (in this case, epistemic thinking). Chi’s (2009) verbal data analysis technique was one such method. This method
allows researchers to identify patterns found in copious amounts of verbal data (such as the verbal data found in a classroom). It is intended to be useful for cognitive researchers who are interested in capturing the ways knowledge is represented and how that knowledge can change during the learning process. To achieve this, it is important to have verbal data that include what participants know and verbal data that provide participants’ explanations for their thoughts and actions. From those forms of verbal data a researcher is able to show how what a person knows could impact their learning.

To analyze the verbal data, Chi (2009) recommends the following steps be completed (in no particular order):

- Narrow the volumes of data to the samples that help to answer the research question.
- Segment the reduced data (e.g., by paragraph, idea, pauses, etc.).
- Develop or choose a coding scheme that helps to answer research question.
- Use clear evidence for what counts as each code.
- Depict the coding scheme or the mental representations pulled from the data (optional).
- Seek patterns in the data.
- Interpret patterns.
- Repeat process at a different grain size to answer different questions (optional).

Below I explain how I selected the verbal data to help answer my research questions. At the end of this chapter, I explain how I coded the data and detected patterns in epistemic thought for each research question I posed. In Chapters 4, 5, and 6, I explain how the patterns were interpreted and I include evidence to support my interpretations.
As noted by epistemic cognition researchers, EC can shift depending on what becomes salient in a given frame or context. In order to gain more insight into the role of epistemic cognition in social justice thinking in education, it was necessary for me to anchor the epistemic cognition by focusing on specific aspects of social justice thinking (i.e. Question 1: learning experiences about discrimination; Question 2: the scope of structural and individualistic thinking; Question 3: social justice thinking as applied to potential professional practice). The epistemic thinking was revealed in participants’ explanations and justifications (Chi, 2009) that were related to their beliefs about or use of epistemology when engaging in the aforementioned aspects of social justice thinking (e.g., standards for what counts as evidence of discrimination; causal explanations about educational problems; or pedagogical beliefs that are shaped by perceived student differences).

To establish validity, I triangulated my analyses using multiple verbal data sources including my fieldnotes (Chi, 1997). In my findings chapters, I include illustrative quotes that reflect the patterns that have been detected and I include quotes that contest or add further nuance to those patterns. In those chapters, I pull examples from a range of participants and from a range of data sources (e.g., online reflections, research projects, interviews, class discussions, etc.). At times, I pull examples from the same participant in order to show shifts or inconsistencies in their ideas. Those instances are clearly noted. Below, I show the coding schemes I generated to answer each research question.
Research Question 1 Analysis

For my first research question—which was focused on the evidence TCs used to detect oppression and what kinds of knowledge were impactful in their prior learning—I began by reviewing the participants’ verbal data and my field notes for instances in which participants discussed the detection of linguicism, racism, or sexism. I categorized these statements under the corresponding topic. Since homophobia emerged in conversations about sexism, I also included those statements in the Sexism category.

I used bottom-up coding to identify patterns in the characteristics of the evidence that the participants used when they identified discrimination or bias. Trends in these evidential characteristics were determined when two or more discrimination categories had at least one overlapping evidential characteristic (See Table 2).

Table 2: Trends in Evidence of Discrimination or Bias Cited by Participants

<table>
<thead>
<tr>
<th>Evidence Codes</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct or overt</td>
<td>[Linguicism] “they’ll mock the students”</td>
</tr>
<tr>
<td></td>
<td>[Racism] “so I’d consider that for sure a bias at least if nothing else. It’s not like they act discriminatory towards them but it’s bias for sure.”</td>
</tr>
<tr>
<td></td>
<td>[Sexism] “students throw out… homophobic slurs”</td>
</tr>
<tr>
<td>Stereotypes, social norms, or negative expectations</td>
<td>[Linguicism] “when we hear a deep southern accent what is your first inclination versus someone who is well spoken?”</td>
</tr>
<tr>
<td>Category</td>
<td>Example</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Racism</strong></td>
<td>“I’ve definitely witnessed my teachers kind of treat parents in that respect ‘Oh, they’re not going to come’ ‘Oh, even though I send everything home they’re not going to bother’ there’s definitely that chip on their shoulder without putting the effort out there.”</td>
</tr>
<tr>
<td><strong>Sexism</strong></td>
<td>“they have a crocheting club and the boys criticized another boy for joining the club”</td>
</tr>
<tr>
<td><strong>Hidden</strong></td>
<td>“now I’m going to dig deeper; If we didn’t see this maybe [linguicism] goes unnoticed”</td>
</tr>
<tr>
<td><strong>Subtle or indirect</strong></td>
<td>“What we say could be interpreted as discrimination. I don’t mean it but it does.”</td>
</tr>
<tr>
<td><strong>Sexism</strong></td>
<td>“I don’t think I’ve been super in tune to it”</td>
</tr>
<tr>
<td><strong>Underrepresentation or differential treatment</strong></td>
<td>“[Referencing people asking Asians where they are from] It’s not like you ask a Caucasian person that. You just know they’re here.”</td>
</tr>
<tr>
<td><strong>Embedded in power dynamics</strong></td>
<td>“they only hired pretty girls”</td>
</tr>
<tr>
<td></td>
<td>“it’s a power/status symbol speaking English”</td>
</tr>
<tr>
<td></td>
<td>“If you’re talking down to somebody then it looks—it’s awful. You can’t—especially, little kids, like I said little kids of color. You can’t talk down to any little kid that way let alone to kids who only...”</td>
</tr>
</tbody>
</table>
To answer the second part of the research question, I reviewed my field notes and the corpus of verbal data for moments in which TCs’ explained that they experienced a significant change in their understanding about a social issue and provided details about why the experience was impactful. I used a bottom-up coding scheme to identify epistemic characteristics in what made those moments impactful for TCs. Trends were identified when an epistemic characteristic was central to the shift in thinking for at least two participants. I found that those characteristics (i.e., Direct Experience, Direct Observation, and Storytelling) could be collapsed into two categories (i.e., Firsthand Knowledge and Secondhand Knowledge) (See Table 3). In my results in Chapter 4, I discuss how those characteristics helped to elicit a change in participants’ beliefs.

Table 3: Impactful Knowledge Types

<table>
<thead>
<tr>
<th>Knowledge Type</th>
<th>Subcategory</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firsthand Knowledge</td>
<td>Direct Experience</td>
<td>An experience in which Person A was centrally impacted</td>
<td>Annette has been teased</td>
</tr>
<tr>
<td></td>
<td>Direct Observation</td>
<td>Person A’s observation of Person B’s direct experience</td>
<td>Annette has seen Biren be teased</td>
</tr>
<tr>
<td>Secondhand Knowledge</td>
<td>Storytelling</td>
<td>Person B tells their direct experience to Person A</td>
<td>Biren has told Annette about his experience being teased</td>
</tr>
</tbody>
</table>

Research Question 2 Analysis

For my second question—which was focused on TCs’ use of structural and individualistic analyses and the impact of the program—I searched for verbal data from
throughout the study that included explanatory- or solution-themed statements about an educational issue. I separated participants’ quotes into discrete statements based on TCs’ use of punctuation, pauses, or change in idea. I then used *Structural* and *Individualistic* as codes for each statement. Incorporating aspects of Philip’s (2011, p. 307) coding scheme, I arrived at the codes and their criteria, listed below (See Table 4 for examples):

*Structural* statements fit any of the following criteria:

- factored in systemic or institutional processes;
- indicated causality or specific circumstances while not placing blame on culture or the perceived choices or values of students, their families, or communities; or
- recognized institutional agents (such as teachers and administrators) and their power, influence, or responsibilities.

*Individualistic* statements fit the following criterion:

- assumed psychological, behavioral, or cultural deficits in students, their families, or communities

Throughout all data sources I found that a vast majority of participant explanation- and solution-themed statements were structural in nature. In order to gain more insight, I also noted the scope of their thinking (i.e., *Classroom Level* and *Beyond Classroom Level*) and I looked for patterns in how their thinking was applied to educational problems (See Table 5). The patterns that fell under the scope of structural thinking happened across at least three data sources and were expressed by at least three
participants. Since individualistic thinking is of particular interest and yet was expressed less frequently, the patterns that were found occurred in at least two data sources and expressed by at least two participants. After finding these trends, I applied a cultural-historical activity theory analysis of the context of the study (See Chapter 5). I then referenced my field notes and auxiliary codes for emergent themes to identify plausible influences that could help interpret the patterns that were found. In Chapter 5, I review the patterns in participants’ application of structural and individualistic thinking and I discuss an underexplored influence in their use of social justice thinking.

Table 4: Examples of Structural and Individualistic Thinking

<table>
<thead>
<tr>
<th>Thinking</th>
<th>Classroom Level</th>
<th>Beyond Classroom Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>1. “I understand that everybody does it and makes mistakes but becoming aware of the problem is the first part of the solution and how we as educators break that habit”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. “Perhaps a good way to solve this problem could be to talk to the individual students and listen to their input as to why it might take so long for them to transition”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. “By having a conversation with our supervisors, we can change the expectations that are put on teachers and students”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. “The teacher’s limitations in reaching every student can be due to the bigger picture issue of the district’s growing population. [The city’s] population is steadily increasing in the past couple years”</td>
<td></td>
</tr>
<tr>
<td>Individualistic</td>
<td>1. “I now think that the cause of this problem stems from the toxic attitude towards writing in my classroom, as well as the attitude that my students have about themselves as writers.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. “Personality wise, she’s just naturally a loud, outgoing student who needs that extra attention”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. “…one student in particular I know she seeks the negative attention because her home life isn’t the best… this student doesn’t always get the attention she requires at home.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. “I think the cause for the poor performances can be…. lack of support at home”</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5: Use of Structural and Individualistic Thinking

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Example 1</th>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully structural</td>
<td>“Some common obstacles that teachers face that can affect their performances are that lack of prep time, administration raining down impossible tasks, observations, large class sizes, lack of support and the sheer amount of pressure to have their students excel”</td>
<td>“The biggest challenge we face as educators is how to be part of the change. How do we ensure we are advocating for our students, how do we help our peers understand their biases, how do we ensure that we do [not] become part of the teacher burnout statistic, how do we ensure we are making deep connections with our students, how do we make the difficult decisions of teaching to the group or teaching to a few students when we don’t have the proper classroom support?”</td>
</tr>
<tr>
<td>Structural linked with individualistic</td>
<td>“The school’s curriculum and the standardized testing materials do not match. (The [tests] are testing information that are not yet taught.) A lot of the students are in need of an IEP or special need for their pace of learning, but getting the IEP itself takes such a long time and process”</td>
<td>“The cause might be that students are not being reinforced to comply with such rules set in the classroom, because it is not consistent to those at home… there seems to be a lack of consistency in discipline, rules, and expectations at school vs. at home. Another cause could be that students are not approached in the appropriate manner that engages them in maintaining motivation to complete a task”</td>
</tr>
<tr>
<td>Fully individualistic</td>
<td>“The issue I see within my 5th grade classroom is students who seek negative attention from the teacher rather than positive, supportive attention, which tends to disrupt other students. Not only does it disrupt other students but their behavior keeps them from completing assignments and projects, which makes them fall behind academically.”</td>
<td>“Students need more parents to be involved in their education. My teacher tells me that a lot of the parents do not help their kids with their homework”</td>
</tr>
</tbody>
</table>
Research Question 3 Analysis

For my final question—which centered on TCs’ potential pedagogical decisions and their attention to student difference—I initially selected five focal participants to complete the think aloud lesson planning activity. To avoid causing anxiety by my presence, I chose participants with whom I had built a strong rapport and had already interviewed for at least 90 minutes. One participant had scheduling conflicts and could not arrange to meet with me so I conducted the think aloud activity and retrospective interview with only four TCs. Afterward, I transcribed the interactions. I used a bottom-up coding scheme based on Fives et al.’s (2017) definition of pedagogical decision making; “the general and wide scope of decisions teachers make as part of the entirety of their professional practice” (p. 272). However, teacher candidates’ enacted decisions were not the only clues to their potential pedagogical practices. I saw that their stated preferences for particular kinds of pedagogy could help to paint a clearer picture of their future practices. Ultimately, I coded the transcriptions to identify the enactments of or preferences for a pedagogical choice sought by the participant. Trends in pedagogical decision making were identified when they were discussed by at least two participants during at least two disparate occasions during their individual think alouds (See Table 6).
To determine which students TCs considered while lesson planning, I also coded all references to student difference. These differences were determined when a participant made any distinction between their potential students (excluding student grade level). Some indicators were “not all kids…” “some students…” “students that…”. The resulting student differences were collapsed into the four categories found in Table 7. From these data, I recorded the pedagogical reflections that TCs made to accommodate those students. I then searched the corpus of data of each participant for other reflections they had made about the student differences they had mentioned during the think aloud activity. In Chapter 6, I list the patterns that emerged and compare the participants’ pedagogical decisions to the expectations often found in social justice pedagogies. I also examine how their inclusion of various student differences was not arbitrary but was indicative of pedagogical commitments to those students.

Table 6: Trends in Pedagogical Decisions Sought by Participants

<table>
<thead>
<tr>
<th>Decisions</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Making curricula relevant to students | 1. “…Earth’s features are changing… that’s like interaction with their world you know what I’m saying? And then, bringing it to them—the students. How does this concept actually relate to your lives? How does it affect your lives and how do you affect that?”  
2. “seeing themselves represented… anytime you see someone who looks like you ‘Oh I could be like them. I want to be like them.’ I think that’s a good standard they could try to reach or it could influence them, it could motivate them” |
| Attending to students’ communication skills | 1. “I feel like a lot of kids really do struggle with this because they don’t read big words I guess”  
2. “I mean you have kids that are coming in that can read fluently and you have kids that don’t know their ABCs. Hopefully by March, in this case, you would have gotten most of the class up to recognizing basic phonics and letter sounds and letters in general—but you may have kids that could barely write their own names” |
| Helping students uncover whys and hows | 1. “…we’d talk about again why this is a bad thing or how—what caused this sort of thing” |
2. “… if they have to explain why it has to make sense and I’ll know if they actually understand the words that they are choosing”

Calibrating lesson Complexity
1. “I might just do events instead of [perspectives]. I think it’s too advanced for them.”
2. “I feel like vocabulary is just the easiest.”

Supporting student agency
1. “…I’d give them choice in how they’d want to present the information, whether it’s on a poster or online, or maybe it’s like a blog sort of thing”
2. “… especially in the very beginning so it’s not just one thing but it’s many things that they can choose from”

Including cross-curricular integration
1. “…it’s more of a STEM and when I see something like this I would want it to be more of a STEAM approach, you know again adding kind of that arts piece to it”
2. [English assignment] “So, it’s kind of like a historical fiction. Kind of make their own historical fiction based off a letter”

Table 7: All Student Difference and Some Pedagogical Considerations

<table>
<thead>
<tr>
<th>Student Difference in</th>
<th>Example</th>
<th>Pedagogical Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background Knowledge/Experience</td>
<td>“I think our lesson topic… I’m struggling with how I would want to introduce it. Do you introduce it as [pause]. My initial thought is to introduce it as a social emotional piece and grow it from there. <strong>Not all kids in your classroom are going to be familiar or even know</strong> that a plant comes from a seed that grows in the ground”</td>
<td>Lesson needs appropriate topic introduction for various levels of prior knowledge</td>
</tr>
<tr>
<td>Communication or Social Skills</td>
<td>“I like group tasks… I think it’s just like a good way for students to practice communicating and to get those social skills and things like that and <strong>for kids that are more shy</strong>”</td>
<td>Group tasks are helpful for shy students</td>
</tr>
<tr>
<td>Access to Resources</td>
<td>[Using science lesson as metaphor for learning] “from a teacher perspective it would be kind of the <strong>flourishing student who’s given all the resources they need</strong> versus the student who you just kind of push off to the side”</td>
<td>Teachers’ attention is an influential resource for students</td>
</tr>
<tr>
<td>Social Identity and Perspectives</td>
<td>[When deciding lesson content] ‘Women of WWII’… I think that’s a good one. I think it’s <strong>good for girls—even boys</strong> to see that women had a key role in WWII—in any war really. I think it’s important”</td>
<td>Content should include women’s contributions</td>
</tr>
</tbody>
</table>
In order to have an enriched understanding of how epistemic cognition influences thinking, it is necessary to investigate it in multiple contexts and using multiple methods. In the present study, I conducted interviews, focus groups, and think allowed protocols. I collected classroom verbal data such as spoken and written discourse, course artifacts, and the urban education program literature. The data were collected over the span of one semester in two 7-week courses. I was able to see how participants’ thinking about social justice issues was impacted by their tacit and explicit beliefs about epistemology. This thinking was revealed in both formal and informal contexts, across numerous topics, and at varying levels of specificity. The following three chapters will elucidate the ways in which social justice thinking and epistemic cognition intersected. I will provide nuanced descriptions of the intricacies of these intersections and then in the final chapter I will provide my conclusions and recommendations for future research and changes to teacher education programs.
Chapter 4: Detecting Discrimination and Learning About Social Issues

Teacher preparation programs often aim to have teacher candidates learn about the oppressive forces that impact schools and schooling (Cochran-Smith et al., 2015). Many programs include a clinical fieldwork experience to further assist with accomplishing that goal. However, little research has addressed the evaluative processes that teacher candidates engage in during their participation in these field experiences. If we want TCs to be able to teach toward social justice it is important for us to know about their ability to evaluate situations and recognize different forms of oppression that could be present in the context of schools and schooling. This is especially important because oppression can often be represented in the form of microaggressions and have been shown to occur frequently in school settings (Allen et al., 2013; Yosso et al., 2009). These subtle and repeated putdowns are believed to be difficult to detect (Pierce, 1995).

Can teacher candidates detect instances of linguicism? Racism? Sexism? These questions warrant an investigation into what evidential criteria teacher candidates use to determine that a situation is an example of oppression. In addition, we must find out what types of knowledge has been most impactful in shaping their understanding of social issues. Uncovering the answers to these questions can help us refine teacher preparation programs in order to better accommodate teacher candidates’ thinking and learning patterns. This chapter will provide some answers to those questions. In my analysis, I found that teacher candidates used rather sophisticated criteria to evaluate if a social situation was an instance of oppression and these situations frequently emerged during clinical fieldwork experiences. I also found that firsthand and secondhand knowledge played a significant role in helping teacher candidates to better understand social issues.
In this chapter, I will begin by explaining the learning goals that often guide fieldwork components in teacher preparation programs. Then I will delve into the ways teacher candidates evaluated social issues that emerged during those clinical experiences. I will then explore the types of knowledge that was most effective in changing TCs’ beliefs about social issues. Finally, I will reflect on the implications of these findings and how these patterns in epistemic thought could be harnessed to design more effective teacher preparation programming.

Goals of Clinical Field Experiences

Research has shown that teacher preparation programs that are geared toward social justice often have a field experience component (Cochran-Smith et al., 2015). Oftentimes these experiences are intended to help TCs unpack the prior knowledge they bring into the classroom and to enrich their knowledge of the contexts in which they will be teaching. Goodwin and Darity (2019) referred to these types of TC knowledge as personal knowledge and contextual knowledge, respectively. The influence of these types of knowledge is explained below.

[Regarding personal knowledge] By the time preservice teachers enter teacher preparation, their beliefs about students, schooling, teachers and teaching have already been informed by their extended experiences as students in elementary, secondary, and even university classrooms, and by their lived experiences within specific socio-cultural contexts… contextual knowledge begins with the classroom and family communities, it also acknowledges that these contexts are situated within larger political, historical, institutional, and cultural contexts. (p.65)

Given the importance of these types of knowledge in social justice education, field experiences can be used to challenge the beliefs that TCs bring into the profession and they can help expose TCs to the practice of teaching in real world contexts that are governed by broader social circumstances.
The development of these types of knowledge can also be prompted by field experiences that allow teacher candidates to become acclimated to their future students and their communities (Valencia et al., 2009). Sometimes this acclimation process has been used as a method of exposing teacher candidates to communities and environments for the sake of mitigating teacher biases (Baldwin et al., 2007; Gay & Kirkland, 2003). For instance, some experiences require TCs to specifically seek out unfamiliar social spaces, make observations, and reflect on their own assumptions about the people in that space (Hyland & Heuschkel, 2010). Other programs require them to conduct interviews with someone from a different social sphere as a method of gaining knowledge about their lives in relationship to oppressive forces such as structural inequity and racism (Mueller & O’Connor, 2007). The assumption is that exposure to new communities will help TCs become more empathetic, introspective, and understanding of how oppression affects various people. However, there is little research that explains how teacher candidates evaluate the situations they witness in these field experiences. We also know little about the types of knowledge that can bring about the most impactful learning experiences for TCs. The present study seeks to fill those gaps in this line of research.

**Evidential Criteria for Detecting Oppression**

In order to better analyze TCs’ evaluations of social issues I chose to center this study on specific forms of oppression; namely, linguicism, racism, and sexism. I chose these forms of oppression because they are a familiar focus in either the urban education program, research on social justice education, and/or in the U.S. zeitgeist. There is scholarship that explores the interconnected and intersectional aspects of various forms of oppression (Collins, 2000; Crenshaw, 1989). However, in my analysis, I organized these
forms of oppression into discrete categories in order to uncover potential patterns of thought that TCs may have applied to one or more of these forms of oppression. To capture the psychological, behavioral, and institutional aspects of these forms of oppression (Medina, 2013; Skutnabb-Kangas, 2000; Swim & Campbell, 2001), I defined them broadly as discrimination or bias relating to language use, race/ethnicity, or sex/sexuality, respectively. I then searched my fieldnotes and verbal data throughout the study for instances in which teacher candidates commented on social situations that they believed involved bias or discrimination in regards to the aforementioned categories. In the data, participants would reveal their evidential criteria for oppression when they described social problems that emerged in their clinical field experience or in the urban education program. Other times, participants would reveal their criteria when they would ask another participant probing questions about a social situation. In my analysis, when an evidential criterion was present under two or more forms of oppression they were coded as patterns across the data. In total, I found six patterns of evidential criteria that were used across the data. Teacher candidates revealed that evidence of oppression could be:

- direct or overt
- indirect or subtle
- hidden
- stereotypes, social norms, or negative expectations
- underrepresentation or differential treatment
- embedded in power dynamics
The following sections provide examples of each criterion that emerged as TCs reflected on situations that occurred in their clinical field experiences or in the urban education program.

Direct or Overt

Some participants suggested that discrimination or bias could be done directly or overtly. In the exchange below, evidence of discrimination is made overt by a teacher’s verbal performance. Melanie, a teacher candidate, was reflecting on her students who engaged in codeswitching then she explained how her cooperating teacher would mock the students.

Melanie: I did notice that there’s ‘proper language’ and ‘ghetto language.’ Students will turn it on and off as best they can. I didn’t expect teachers to do that. I think they just discriminate.

Lauren: Are they using it in a derogatory way or in their instruction to reach their students?

Melanie: Not in their instruction. They are just letting loose.

Lauren: They actually speak that way or—

Melanie: Sometimes. They’ll mock the students. They’ll tell a story from a student’s account… I’m no longer comfortable. I feel unease that they are using that intonation even though that is not what their students sound like at all.

Here, the TCs analyzed the circumstances of a situation to make sense of overt oppression. In this exchange, Lauren asked if the teachers are being “derogatory” or trying to “reach their students.” This distinction about intentionality implies overtness. If a teacher is being derogatory, they are attempting to insult the students which makes their actions overt. Lauren is so surprised by the claim of overt discrimination that she continues to question how the situation unfolded in her last remark. Throughout the exchange, Melanie confidently identified that the teachers “just discriminate” and they
“are just letting loose.” For Melanie there is no ambiguity about the oppressive actions of her cooperating teacher.

In another example, during a discussion about race issues, one participant, Jessica, made a distinction between discrimination and bias that indicated racism could occur in overt ways. Jessica explained:

I’ve definitely witnessed my teachers kind of treat parents in that respect ‘Oh, they’re not going to come’ ‘Oh, even though I send everything home they’re not going to bother’ there’s definitely that chip on their shoulder without putting the effort out there. So I’d consider that for sure a bias at least if nothing else. It’s not like they act discriminatory towards them but it’s bias for sure.

In these two examples, the participants suggested that there can be an overtness in the way oppression surfaces in their clinical placements. The participants identified overtness as discourse that reflected “discrimination” and that was “derogatory.” They viewed those forms of discourse to be more severe or direct while bias may be “a chip” on a teacher’s shoulder and not a behavior directed at the students.

**Indirect or Subtle**

As implied in the previous example, participants could also tease out the indirect or subtle nature of oppression. When discussing racism, Maria explained that a Black student she observed would routinely get reprimanded by teachers but another student who was similarly inappropriate, “he says something bad but nothing ever happens and he’s White.” She added, “I don’t think it’s overt. I don’t think [the teachers] do it on purpose.” Maria linked the covert nature of racism to intentionality. In her story she believed the situation to be less discriminatory because the teachers did not consciously intend to treat the two students differently. Later in the conversation another participant also pointed out how racism can be indirect. Margaret explained, “It can come in
different forms. It doesn’t have to be directly related to race. It can be indirect, soft-spoken or toward the person or amongst people as they’re talking. What we say could be interpreted as discrimination. I don’t mean it but it does.” Here, racism could be a result of unintentional messaging and misinterpretation. In a conversation about linguicism, Melanie tapped into how implicit bias can affect how people interpret accents. She asked, “Do we discriminate when we hear a deep Southern accent? What is your inclination versus someone who is well-spoken? That ties into how educated they are so we jump to think that this person is more educated?” For Melanie the “inclination” that many people have against Southern accents is demonstrative of the subtle and covert aspects of linguicism.

Hidden

Some participants addressed how oppression could be so subtle that it is hidden or goes unnoticed. For example, when thinking about her own experience with sexism, Charlotte states, “I don’t have any significant experiences where I’ve been discriminated against based on my sex. I don’t think I’ve been super in tune [sic] to it.” Oppression is not just subtle and indirect, to her it could occur without a person knowing. For Charlotte, being “in tune” to that form of oppression can help reveal instances of sexism. In a focus group Maria was asked what form of discrimination she understands the best. She responded, “I don’t understand a form of discrimination the best because how do you know something if you’re not deeply indelved [sic] in it… How do you really know inside and out? I hear about it and read about it but how do you really know inside and out?” Maria expressed that to have a strong understanding of discrimination a person would need to be fully emersed in that discrimination otherwise aspects of it could go
unnoticed. In another example, one participant described her school as having a sizable portion of students who were multilingual yet almost all students spoke what she described as “proper English.” In response to that, Melanie made a suggestion, “Now I’m going to dig deeper. If we didn’t see [linguicism], maybe it goes unnoticed.” In her fleeting comment she revealed that detecting linguicism requires closer investigation because it is not always seen. For her, the scenario that the other participant painted warranted that closer inspection. The ubiquity of students speaking in socially acceptable ways in a multilingual school may have been an indicator for Melanie that linguicism could be present yet had gone unnoticed by the other participant.

**Stereotypes, Social Norms, or Negative Expectations**

Many participants mentioned that negative expectations and stereotypes directed toward social groups were evidence of oppression. Kelly recalled a common trope that emerges in gender role expectations, “Like gym teachers saying girls can’t do something. But I haven’t seen that anywhere.” She is aware of that stereotype but had not witnessed it personally. Charlotte, however, did witness teachers in her clinical placement employ sexist stereotypes. “A student got suspended then he threatened the teacher and got suspended again. It was pretty sad. They were talking about him like that was it—the way they talked about him.” She added, “They were saying all the boys in the class are naturally more aggressive. They were blaming them. Like attributing it to them.” Charlotte identified the harmful talk and negative expectations that were placed on the boys in her classroom. She was troubled by how this dialogue reinforced the ideas that aggression in boys was innate and unavoidable.
In a group discussion about racism some participants engaged in an evaluative process to determine if oppressive stereotypes had been attributed to students:

Amy: For my school I haven’t witnessed discrimination. I’m sure it takes place. But there’s this instance when an African American student—the checking in teacher said the student has attitude problems and behavior issues. The teachers say they’re worried about him because the way he acts and his behavior looks like he might join a gang. Is that discrimination, I guess? I have no idea. But at the same time, I kind of understand what they’re saying.

Jessica: If there’s active gangs in the area, if they recruit at that age, if they’re noticing specific gang-related behavior. If it just looks like, then that’s discriminatory. I find that to be wildly discriminatory.

Amy: I don’t know him. I wonder what does that even mean? And, what are they basing his behavior—because he talks ‘Black?’ I don’t know.

In this exchange, Amy was uncertain if the stereotypes teachers applied to a Black student were discriminatory and Jessica created criteria to help evaluate that social situation. In Amy’s attempt to evaluate the situation she was unsure if the situation was discriminatory because she understood how the student’s speech satisfied a stereotype attached to gang members. She recognized that the cooperating teacher’s discourse was inappropriate and vague but because she could see why those statements were made she was uncertain if it counted as discrimination. To determine if the stereotypes were justified in this situation, Jessica intervened and explained that there needed to have been actual and specific knowledge of gang activity, recruitment, and behaviors. She concluded that the teachers’ judgments were merely based on superficial reasons and were unfounded and outrageous.

**Underrepresentation or Differential Treatment**

For some participants another piece of evidence of oppression was when members of social groups are treated differently or are underrepresented. Kelly noticed the underrepresentation of women in a school working environment. She explained that in
her school placement, “the teachers have always been mostly female and the principals are always male.” For her, the fact that there was an unequal distribution in the leadership structure between the sexes served as evidence of sexism. Regarding sexism, Alex remarked, “I was told the boys [in the clinical placement] could relate more to me. Is that discrimination? I don’t know.” Here, Alex detected that the cooperating teachers assumed he had a different influence over the boys in class because Alex is male. He listed this a potential example of discrimination but was not sure and his peers did not follow up with their opinions. In another example, a participant who is Asian (Amy), one who is White (Mary), and one who is Latina (Maria) exchanged their ideas about being treated differently because of one’s race or ethnicity:

Amy: One of my girls asked ‘Where are you from?’ I said I was born here and she said ‘Because you look like you’re from China.’ I was like, ‘well my ancestors are but I was born in New York.’ I don’t know if—

Mary: That is discriminatory.

Amy: Is it? I don’t know…

Mary: You don’t think so?

Amy: It’s so weird when adults ask me. I’ll just say ‘I was born in New York.’

Mary: What do you mean where I’m ‘really from?’ Like, just say, ‘What’s your ethnicity?’

Amy: It’s kind of alienating.

Maria: It does. I kind of do feel alienated.

In this exchange, three participants engaged in a discursive evaluative process. They sought to determine if a teacher candidate of Asian descent experienced discrimination when a student in her clinical placement asked about her place of birth and assumed she was of Chinese origins. For Mary the interaction with the child was clear evidence of discrimination but Amy was uncertain. Amy gave an example of a situation that she perceived to be more clearly discriminatory. In that new example, Amy is bothered that an adult is asking the question and it is done in a way that others her, whereas, she gives
the child more leniency because they are asking out of curiosity and not signaling that Amy does not belong.

**Embedded in Power Dynamics**

In a few instances participants identified that power dynamics can be a marker of oppression. Regarding racism, Jessica critiqued a White teacher who was condescending toward a student of color. She explained, “If you’re talking down to somebody then it looks—it’s awful. You can’t—especially, little kids, like I said little kids of color. You can’t talk down to any little kid that way let alone to kids who only see imposing White people as terrifying and a place of fear.” For Jessica, it was important that the teacher recognize the contrasts between her and her students. The teacher is an adult and White, while the student is a child and from a historically marginalized group. Based on Jessica’s statements, it is important that a teacher recognize those differences and to see how condescension is inappropriate and could reenforce harmful racialized power dynamics. In a separate conversation, Kelly also mentioned the importance of power dynamics but regarding linguistic discrimination. She directly stated, “My bilinguals class showed me the power of language. It’s a power—status symbol speaking English.” For her, she is able to recognize that speaking English in a multilingual context is also a reflection of power differences between speakers. The differences in power between speakers could serve as evidence that linguicism is in occurrence.

**Revisiting Evidence of Oppression**

In the present study, I have found that teacher candidates used a nuanced set of evidence that helped them to identify oppression. As the participants described problematic situations in their clinical placements, they demonstrated that they in fact
could detect oppression as it surfaced in their clinical placements. The teacher candidates showed that oppression may manifest in indirect ways or could even go unseen (in addition to overt manifestations). They also expressed that stereotypes and negative expectations could be evidence of oppression. Participants also cited othering and underrepresentation in work environments as evidence. A few also noticed that the differences in power or status expressed in language, age, or race could also indicate oppression is in operation. Interestingly, few teacher candidates explicitly listed structural inequity as evidence of oppression in their scenarios. When they did, it was in reference to hiring practices and leadership hierarchies in the workplace. There were no trends in talk about the underfunding of urban schools, the influence of politics on education, or dynamics that were beyond the classrooms and student homes. However, most were able to detect potentially oppressive interpersonal interactions.

Despite the astute observations that TCs made about the covert aspects of oppression, they would often question how to best classify these situations. Many oscillated between classifying them as “discrimination” or “bias.” Some made the distinction that discrimination is overt and bias was not, while others explained that the former is done with greater intentionality than the latter. Even though some participants gave examples when asked about discrimination or bias they were not confident in their interpretations. They found parallels that signaled discrimination or bias but certain aspects of the situation they described left them feeling uncertain. For example, Amy was unsure if discrimination occurred when a student asked if she was Chinese but she believed that when adults did that it was easier to label it as discrimination. Amy also recognized that her cooperating teacher was stereotyping a Black student but she was
unsure if it was discrimination if she could see why that comment was made. Alex was uncertain if teachers’ assumptions that the male students would connect well with him was an instance of sexism.

The data presented here calls for further investigation into what impacts teacher candidates’ learning experiences about social issues. What could influence a TC to become attuned to discrimination or to identify it with confidence? How can researchers and teacher educators design stronger pedagogical experiences to support the development of teacher candidates’ social justice dispositions? Delving further into what TCs identify as powerful learning experiences related to oppression can move us closer to the answers to these questions.

**Knowledge That Made Learning Experiences Impactful for Teacher Candidates**

We have seen the types of evidence that teacher candidates have used to detect potential examples of oppression. But, how are teacher candidates’ beliefs about social matters changed? What types of knowledge has been most impactful in their understanding of social issues? Below I will uncover the epistemic features that teacher candidates explicitly stated aided them in developing their ideas about various social issues. These learning experiences were not limited to the clinical fieldwork. Some were from workplace interactions or undergraduate experiences.

My analysis revealed a range of impactful experiences (see Table 8). I found that firsthand and secondhand knowledge were the primary forms of knowledge that teacher candidates stated aided them in changing their beliefs about a given social issue. *Firsthand knowledge* was when a participant personally experienced or witnessed a situation that reflected a social issue. *Secondhand knowledge* was when a participant
listened to someone else’s personal experience. There were no indications that thirdhand knowledge (the relaying of someone else’s firsthand knowledge) was impactful. I also found that firsthand knowledge could be placed into two categories: *direct experiences* and *direct observations*. Direct experiences were experiences that a teacher candidate had in which a social issue had directly impacted them at the time. Direct observations were when a teacher candidate made observations of others experiencing a social issue. Secondhand knowledge, which occurred in the form of storytelling, occurred when one person told their personal experiences to a participant.

Table 8: Impactful Knowledge Types

<table>
<thead>
<tr>
<th>Knowledge Type</th>
<th>Subcategory</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firsthand Knowledge</td>
<td>Direct Experience</td>
<td>An experience in which Person A was centrally impacted</td>
<td>Annette has been teased</td>
</tr>
<tr>
<td></td>
<td>Direct Observation</td>
<td>Person A’s observation of Person B’s direct experience</td>
<td>Annette has seen Biren be teased</td>
</tr>
<tr>
<td>Secondhand Knowledge</td>
<td>Storytelling</td>
<td>Person B tells their direct experience to Person A</td>
<td>Biren has told Annette about his experience being teased</td>
</tr>
</tbody>
</table>

**Firsthand Knowledge**

**Direct Experience.** As researchers and teacher educators can imagine, a powerful way of fostering learning is by helping learners to uncover parallels between their personal experiences and the lessons that are being taught. In the present study, one participant, Lynn, reflected on her experience of being an English language learner and was able to apply that experience to better understand the language issues that her students face. She explained, “I think for me I know that learning a different language is extremely hard. You start from a blank page and people are talking and talking and
you’re trying to survive in that place and I was there. Coming from that I know that
students start to learn at a young age.” She added, “It takes a lot of confidence and effort
to talk to someone. ‘What if I make a mistake?’ I think with ESL students, I connect with
them more, even if it’s just language development issues I can just be more patient with
them.” For Lynn, her understanding of her students’ language issues came about due to
her direct experience of being an English language learner herself. That experience
allowed her to empathize with her ESL students. Lynn was able to even channel the
auditory experience and thinking process of ELLs; she imagined that they hear people
“talking and talking and you’re trying to survive.” She could also imagine the questions
ELLs may have, “‘What if I make a mistake?’” Her personal experience that overlapped
with her students’ helped Lynn to understand the challenges her ESL students face.

Later in that conversation, Melanie also expressed how her direct experience of
speaking different languages helped inform her understanding of ELL student
experiences. She said, “I’ve had to speak a different language. It was never for the sake
of survival in the classroom. We have the privilege that wherever we go people will cater
to our language. When I’m in your country I speak in your language. I’ve never given
much thought to the effort it takes just to say ‘Thank you.’” In this situation, Melanie
used her direct experience differently than Lynn. In the earlier example, Lynn’s learning
experience came about because of how similar her direct experience was to that of her
students in the class. Melanie’s learning experience, however, came about due to the
contrast between her own experience learning another language with low stakes and the
experience of students who had to learn another language to survive. Recognizing the
stark contrast between her direct experience and her students’ experience was enlightening for her.

In another example, a participant, Alex, explained that what impacted his understanding of sexism the most was the mistreatment he experienced firsthand due to his gender. He stated, “…being male in the school I get looks. People get suspicious, I get stopped immediately.” While there is more that could be unpacked about how enlightened teacher candidates’ beliefs are, the present research question is meant to identify moments that to the teacher candidate were impactful in their understanding of a social issue. Such an experience could have occurred at any phase of their social justice development (including nascent ideas or a regression in their understanding).

**Direct Observation.** A majority of participants’ whose ideas changed due to firsthand knowledge were influenced by direct observations of social problems. This type of firsthand knowledge was gained when a participant witnessed others who were centrally or negatively affected by a social problem. An example of this was when a participant, Nadia, mentioned witnessing sexism in the workplace. When answering what impacted her ideas on sexism, Nadia said, “I used to work at Abercrombie… they only hired pretty girls.” While that participant may not have been directly negatively affected by the hiring practices of her employer, the experience of witnessing unfair hiring practices helped influence her understanding of sexism. She directly observed the type of girls that the company hired and would not hire.

In a different example of direct observation, Jessica had a shift in ideas when she observed a social problem in her clinical placement and sought to understand why the problem occurred. For an action research assignment, she hoped to understand why her
students had trouble retaining what they had learned as a class when they would switch to do individual work. With this social issue in mind, the participant began making observations dedicated to better understanding the problem. “In this specific set of observations I looked at how the students in this classroom struggle to retain strategies or information learned immediately prior during a whole group lesson…” she continued, “After observing and looking for this pattern over several weeks, I discovered the true problem might be the general disconnect that exists between the students and the curriculum, as well as the students and the teachers.” After she conducted the action research assignment, Jessica remarked in a survey, “I initially thought it was the transition between whole group and individual work that was the issue. Upon further observation, the problematic area seems to be the manner in which the whole group instruction is delivered.” In this example, it was a targeted direct observation that helped her to change her ideas about the cause of the issue that was present in her classroom. The action research assignment required that she carefully make observations and generate explanations about that social issue. Once she observed the problem through a more investigative lens she changed her opinion about the cause of the problem.

In some instances, a combination of direct observation and pedagogical aspects of the urban education program helped participants change their thinking about a social problem. In a class discussion one participant, Kelly, mentioned she realized she was framing her student of color as a troublemaker but remembering her readings about that type of thinking allowed her to change her evaluation of the student. In a follow up interview, she explained:

In the books people of color are labeled disruptive more easily than people who aren’t. Am I just labeling him that because of that? ‘Cause he came in and just
made everyone disruptive and wow, he just changed the whole dynamic. But when I look back, I feel like if it [wasn’t] someone of color who did the same thing, he is disruptive too but I feel like because in all our books we’re learning more quickly to be—I was like okay, let me see what’s going on in the background before I just go—[sighs to imitate frustration]—Or, in urban [education course]... it was like in a book, if you change the way you set up the classrooms for the call and responses and how it reflects their communities and disruptive behaviors don’t become disruptive.

The lessons that were embedded in the readings had provided the participant with a reference point for how to assess situations that emerge in urban school classrooms. After making direct observations, she remembered the readings and then wondered if her initial evaluations of the student were consistent with the problems that were brought to light in the readings. Since she discovered that her initial evaluations were consistent with the harmful ones outlined in the readings, she then relied on a more social justice-oriented reframing strategy to see her student in a positive light. As a result, Kelly sought to work to support the student’s learning rather than simply label him as a troublemaker.

Another participant’s direct observations were complemented by the urban education curriculum. Charlotte had an eye-opening experience when her cooperating teacher made harsh statements about teaching:

She’s just given me some bad advice... such as, she gave me the classic line the first day, ‘Only certain types of teachers can teach in this school. You should have a backbone if you’re going to teach here. You seem really quiet. You should think if this is right for you. You need to put these kids in line.’ That’s exactly what we’re reading— and what we’re talking about in our urban ed class and how that’s not the case... she thinks she just has to be the iron-clad, strong authority figure.

In this scenario, she directly observed that the harmful views her cooperating teacher expressed mapped on to the harmful views that were critiqued in readings and discussions in the urban education program. The fact that these views were addressed in her courses augmented the Charlotte’s clinical field experience. The readings and class
discussions were poignant and helped Charlotte view her cooperating teacher’s comments through a critical lens.

**Secondhand Knowledge**

**Storytelling.** During the data collection, some teacher candidates reflected on impactful moments that were not based on firsthand knowledge but secondhand knowledge. This occurred when a second party explained to a participant how they were negatively affected by a social situation. For example, in a focus group Charlotte was asked what impacted her understanding of sexism, she replied, “I knew about sexism but when I took a gender class—hearing other people’s experiences. It never happened to me. I thought I had a good idea but I didn’t know.” For this teacher candidate, hearing other people’s personal stories enriched her understanding. It made up for the firsthand knowledge that she had lacked at the time. She placed value in hearing the personal experience of others.

In another example, a White participant, Leslie, had an illuminating exchange with her Black coworker, Dominique, about a potentially racist experience. Leslie brought up this situation during a discussion in the urban education classroom. I decided to follow up with her about this matter in a one-on-one interview. Leslie explained that she and her coworker both worked as tutors in a wealthy largely White town. She said that they are both skilled in their work, however, a parent who the TC knows to generally be “abrasive” and “rude,” refused to acknowledge the Black coworker. Leslie did not see the full situation unfold but she did recount to me the conversation she had with her coworker:

[Dominique] said, ‘Oh I can tell that she just doesn’t like me. It’s just a feeling. This woman wouldn’t even acknowledge me and was annoyed that a Black
person was here,’ and [Dominique] was like, ‘It doesn’t even bother me because I’ve lived my whole life like that’ and I was kind of like, ‘That’s wild!’ and that was kind of crazy to me because she was like, ‘I don’t really care if they are racist or not because they’re paying us because at the end of the day it doesn’t affect me personally.’ And, I’m just like ‘That’s wild!’

I asked the participant to expand on what made the Dominique’s statement wild. She explained that her coworker:

   Got more in depth about it, ‘People are always going to be racist. I don’t care if there’s an end to racism because there won’t be… I was raised to not care and I’m not going to argue with them because they’re just dumb so what’s the point?’ And, I was just like, ‘You go against so many Black people that are like ‘Equality!’’ And she’s literally like, ‘I don’t give a shit if I’m equal.’ I feel like if you said that to most Black people they’d be like, ‘You’re not a part of the cause!’ She’s like, ‘I don’t care,’ and that was just wild to me.

In this situation, the teacher candidate’s ideas about how a Black person could react to racism grew more complex as a result of secondhand knowledge. This exchange left an impression on Leslie because Dominique made statements that Leslie did not expect to hear from a Black person. Leslie was taken aback by the surprising personal account made by her coworker. However, there were other factors in this scenario that influenced Leslie. I asked her if she believed Dominique’s assessment, that the situation was an instance of racism. After all, the TC had previously stated that the parent is known to be rude in general. Leslie said that it is very believable that there could be racist ideas and interactions in a wealthy White town. Her prior assumptions about racism were corroborated by Dominique’s personal story.

**Revisiting the Knowledge that Made Learning Experiences Impactful**

Throughout the study participants indicated what influenced their understanding of various social issues. Some of these issues were present during TCs’ academic careers or work environment but most occurred in their clinical placements. These topics ranged
from different forms of oppression to understanding how to best cater to a students’ learning needs. The knowledge that participants said shifted their initial ideas could be grouped into firsthand knowledge and secondhand knowledge. Respectively, their understanding of an issue had changed when they experienced the issue themselves (direct experience) or when they witnessed others experience the issue (direct observation); or, their ideas shifted when someone else explained their personal experience to the participant (storytelling).

Direct observation was most commonly cited by the participants. This is not unexpected given that the clinical field experience allowed candidates to play the role of an outsider which allowed them to witness many issues unfold in schools. In the data, I found that aspects of the urban education program helped to facilitate TCs’ shift in beliefs. For some participants assignments that required them to conduct a targeted investigation helped them change their minds about the cause of an issue. They no longer relied on taken for-granted assumptions about why a problem existed but putting an investigative lens on the problem helped them to see the issue with greater complexity. For other participants, the readings and discussions from their courses were recollected and helped to frame an issue that they had witnessed. The mixture of compulsory investigations and supplementary information in the classroom supported the ways teacher candidates processed their direct observations.

Direct experiences, were found to be helpful in that participants were able to draw parallels between their own experiences and that of others. These experiences prompted perspective-taking which can be a useful tool in developing social justice dispositions. The challenge with this type of knowledge is that teacher candidates may lack
experiences that parallel the experiences of their students. Relatedly, there may be difficulties in initiating secondhand knowledge in schools; It can be a challenge to create a supportive environment in which students feel they can relay their personal experiences openly to an adult—but these challenges are not insurmountable.

Conclusions

Teacher preparation programs that promote social justice pedagogies often include clinical field experiences to help candidates get acclimated to the teaching profession and to become more socially aware. However, there is little research that uncovers how teacher candidates are thinking through the situations that are before them. Can they recognize oppressive dialogue, actions, and structures? How can these programs best shift teacher candidates’ beliefs in a more socially just direction? This chapter was an exploration into these matters.

For the first question, I found that teacher candidates could detect situations that were oppressive. They used a wide and nuanced array of evidence to detect linguicism, racism, and sexism in their clinical placements. However, a recurring theme in the data was participants’ uncertainty about how severe the discrimination was and whether a situation merely appeared discriminatory but was not. This finding shows that teacher candidates are not oblivious to oppression. They can pick up various signs of it including the fact that oppression can go unnoticed; however, some candidates lacked conviction in their assessment of situations. This could be due to the fact that microaggressions, a common type of oppressive situation, are not only subtle but they are repeated incidents. If a participant is analyzing a situation singly, without considering other examples of microaggressions, then they may be less convinced that they witnessed an oppressive
situation. Also, some participants were aware that they could be unaware. They could recognize that oppression could be invisible to some people yet that awareness does not inherently mean that the participant actively applies this lens in her everyday life.

Regarding what impacts teacher candidates’ shift in beliefs on social issues, I found that firsthand and secondhand knowledge were the types of knowledge that were most effective in changing participants’ beliefs. When they had firsthand knowledge (direct experience or direct observation) participants found those to be impactful experiences. Some also found a person’s recount of a personal experience to be impactful too. In some instances, direct observation was further augmented by assignments found in the teacher preparation program.

From these findings, researchers and teacher educators are able to better understand the epistemic thinking that TCs engage in and they can better understand the types of knowledge that are most impactful to TCs. Regarding theories on social justice education and epistemic cognition, these findings can serve as a starting point for investigations into evidential reasoning about social issues. Most epistemic cognition research that touches on social issues is focused on topics in history and/or they rely on Likert-style instruments to measure EC. The current study explores contemporary social issues in complex naturalistic contexts. The qualitative examination of these issues provides a richer account of epistemic cognition than those that could be found in studies that use Likert-style measurements about historical events.

Given the focus on practice in social justice education research the findings in this study can provide helpful insights into the best ways to promote social justice dispositions in TCs. In order to harness this information, teacher preparation programs
should pay particular attention to recruiting candidates who have direct experiences that parallel the experiences of their future students. This a promising strategy that can help to support the personal and contextual knowledge that social justice education requires. Finding TCs whose experiences are well-matched with their future students could improve candidates’ facility and confidence in identifying oppression, including microaggressions. Programs should also supplement courses with poignant readings that can show candidates the teacher discourses they will encounter once on the field. When TCs see that these harmful discourses were predicted with accuracy they may be more likely to ascribe legitimacy to other ideas and strategies discussed in the preparation program. In this chapter, I have established the evidential criteria and the myriad of learning experiences that have shaped TCs’ evaluations about social issues. In the next chapter I will explore how a teacher preparation program helped TCs to elicit certain ways of evaluating educational issues.
Chapter 5: Teacher Candidates’ Structural and Individualistic Thinking and the Influence of the Teacher Preparation Activity System

In the previous chapter, I explored the beliefs and prior learning experiences that shaped the ways teacher candidates evaluated social situations. Now that we have a clearer picture of the beliefs and experiences that TCs bring into teacher preparation programs, we must uncover the ways teacher preparation programs influence TCs’ social justice thinking about education in particular. Specifically, I will examine the kinds of structural and individualistic thinking that emerged in a teacher preparation program and then reveal the ways that specific components of that program prompted particular ways of thinking.

Prior research has shown that teacher candidates often hold individualistic views about students and about social inequity (Castro, 2010). However, little research has been done to categorize the different types of structural and individualistic analyses that teacher candidates make. Pinpointing these categories is a stepping stone to more accurately identifying shifts in their ideas about social issues. This is particularly important given that some scholars have stated that in the modern era teacher candidates could be more proficient at providing socially desirable responses to questions about social issues (Castro, 2012; Villegas, 2007). It is not only important to categorize the types of analyses that TCs make but we must also see how teacher preparation programs could inadvertently encourage candidates to make analyses that are contrary to social justice efforts. As such, this slice of analysis from my larger study is guided by the following research questions:
1. What types of structural and individualistic analyses did teacher candidates apply to educational issues in a teacher preparation program?

2. How were teacher candidates’ analyses shaped by a teacher preparation program?

I found that in addition to widely used structural analyses, TCs applied three types of individualistic analyses to educational issues: (a) individualistic-structural analyses, (b) fully individualistic analyses, and (c) individualistic analyses with distance. Furthermore, the scope of the structural analyses was most often confined to the classroom. Only occasionally (and fleetingly) did the analyses factor in elements beyond the classroom; such as, the influence of standardized tests, funding, or politics. I also found that cooperating teachers’ sense of powerlessness and the rules that governed some teacher preparation assignments played an important role in confining TCs’ thinking to classroom-level analyses. These findings help to paint a more nuanced picture of how social justice thinking and problematic thinking can emerge during the learning process for candidates.

I continue this chapter with a discussion on social justice thinking and its connection to epistemic cognition. Then I explain the data and analysis that was used to identify patterns in the thinking that the cohort expressed. I then discuss the categories that emerged in the data and provide examples. Later, I show how elements of the teacher preparation program reenforced classroom-level analyses from teacher candidates. Finally, I conclude the chapter with theoretical and practical implications of my findings.
Social Justice Thinking and Epistemic Cognition

A key component to understanding social inequity is understanding the common narratives that are used to explain it. Structural explanations are prominent ways that social justice-oriented scholars use to explain social inequity. While many sociologists and educational scholars reference structures, few have provided rigid definitions of what counts as structure (Sewell, 1992). A notable framework that could support empirical investigations is Royce’s explanation of four predominant structures that shape structural inequity (2015). He identified the economic, political, cultural, and social systems as structures that create and reproduce a stratified society. These structures are not discrete but are interconnected systems that influence institutions, opportunities, and ways of thinking. The interconnectedness of these structures is represented in Royce’s example of structural obstacles that can affect people’s lives and opportunities: education, racial and ethnic discrimination, housing, residential segregation, transportation, sex discrimination, childcare, health and healthcare, retirement insecurity, and legal deprivation (Royce, 2015, p. 197-198). A prominent opposing explanation of social inequity can be found in neoliberal ideologies. A key feature of these ideologies is individualism, which places blame on individuals (especially, those who are most harmed in society) for their circumstances, it promotes a survival of the fittest ethos in society, and it rejects the influence of structures in the creation and reproduction of inequity (Bowles and Gintis, 1976; Brown, 2006). Since themes of structures and blame play an important role in learning about social justice, I used these central concepts as a way detect teacher candidates’ disposition toward social justice.
While teachers and TCs operate within multiple larger social systems and can be positioned as either the oppressor or the oppressed (Freire, 1970; Kohli et al., 2015), for the purposes of this investigation, I identified students (and their families and communities) as the group that could be most harmed by structural inequities, and therefore, would most likely be blamed for their circumstances. In order to operationalize these concepts for this study, I have equated social justice thinking to mean structural thinking and problematic thinking to mean individualistic thinking.

Researchers have noted the challenge of getting teacher candidates to adopt structural thinking (Hyland & Heuschkel, 2010; Mueller & O’Connor, 2007). There is evidence that shows that when candidates do adopt this way of thinking, they still struggle with using it consistently and across new contexts (Boyle-Baise & Langford, 2004; Philip, 2011). Some researchers in epistemology and learning argue that the adoption of a new way of thinking occurs by piecemeal and is highly dependent on contexts. Specifically, the epistemological resources theory suggests that people do not hold complete unitary theories about given topics (Hammer & Elby, 2002). People’s ideas about a topic can change when new factors are triggered in a new context.

Philip’s (2011) ideology in pieces framework emerged as an examination of the epistemological resources theory in the context of ideology and education. In this study, he documented the ideological shifts of a teacher who began to learn and apply structural thinking into his pedagogical practice. Based on the prior research on epistemological resources, Philip used a central theme as an epistemic tool to help his participant attain a less fragmented and more coherent application of structural thinking. Philip demonstrated that there was some modest development of structural thinking in his participant’s
analyses of educational problems. It was a continual process that happened over the course of an academic year and the development was not linear. While no strong causal claim could be made, the study does help to outline the steps and missteps a teacher made as he applied a structural lens to educational issues. The study provided insight into the thinking of one teacher but more research is needed to identify patterns in structural thinking across multiple teachers and multiple contexts.

Educational Contexts, Data, and Analysis

In order to identify and make sense of these patterns, it is important to understand the contexts in which the data for this study emerged. Throughout the semester participants would analyze various educational issues in their coursework ranging from how to improve lesson transitions in classrooms to understanding societal influences on student outcomes. There were numerous opportunities for analyses of educational issues to be made. At times, these analyses came about in organic ways. Other times, participants were explicitly prompted to analyze educational problems by their instructor, their peers, or me. Throughout the urban education course, the instructor would remind the class to avoid blaming students and parents and to instead develop alternative explanations to educational problems that they would discuss. The participants were regularly asked to reflect on their own thinking and biases. In both courses, the instructors would cite their own missteps and discuss transformative moments from when they first entered the teaching profession. The readings for the courses frequently discussed structural factors that affected students and included recommendations for teachers to avoid creating or perpetuating educational problems. Some of these readings included: Emdin’s (2017), *For white folks who teach in the hood . . . and the rest of y’all*
too: Reality pedagogy and urban education; Zweir’s (2014), Building academic language: meeting common core standards across disciplines, grades 5-12; and works from Gloria Ladson-Billings, among others. It is within this broader context that the data were collected.

For the purposes of this investigation, TCs’ thinking was analyzed based on statements that were about specific educational issues that were mentioned (e.g., disorderly lesson transitions, effectiveness of Zero Tolerance policies, helpfulness of urban education programs, etc.). In my analysis of these explanatory- and solution-themed statements, I coded discrete ideas found in verbal data as either structural or individualistic. I then coded the statements based on the scope of participants’ thinking (Classroom Level or Beyond Classroom Level). In order to properly factor in the contexts in which the participants expressed different forms of thinking, I analyzed my findings using a cultural-historical activity theory (CHAT) analysis (Cole & Engeström, 1993). CHAT has the “potential to identify and examine the points of contact—and therefore potential sites of development— between change in specific activity systems and historically evolving channels of sociocultural practice” (Ellis, 2011, p. 191). As applied to this study, CHAT could pinpoint how aspects of the dynamic teacher preparation program, clinical field experiences, and social and professional expectations could elicit changes in TCs’ cognition. Using this framework, I began to uncover how the components of the activity system (i.e., teacher candidates developing a social justice disposition) could impact TCs’ expressed ways of thinking. I referenced my field notes, auxiliary codes, and tensions between the components of the activity system to identify plausible answers.
The findings below show the ways structural and individualistic analyses emerged in the activity system. I include demonstrative quotes for each trend and whenever possible, I selected quotes from a range of participants and from a range of data sources (online reflections, research project, interviews, class discussions, etc.). I also include a few sets of quotes from the same participants in order to showcase the shifting ways structural and individualistic thinking could be expressed by one person across different contexts (e.g., explanations versus proposed solutions or class discussion versus one-on-one interview).

If teacher educators seek to promote structural thinking in their TCs then they must know how structural (and individualistic) thinking can be expressed by the candidates. This knowledge can help teacher educators detect signs of growth, stagnation, or regression during the learning process. The present study investigates how teacher candidates’ structural and individualistic thinking is expressed and how TCs’ analyses can become limited or reenforced in the context of a teacher preparation program.

**Teacher Candidates’ Analyses of Educational Problems**

From my review of written and spoken data from classroom discussions, homework assignments, interviews, a focus group, and surveys, I found that structural analyses were prevalent throughout the data. The participants regularly and frequently provided structural analyses of educational problems throughout the semester. Most of these analyses were used in classroom discussions and assignments. However, they were often focused on classroom-level issues. Individualistic analyses occurred less often and were typically found in some study interventions (i.e., survey data and interviews). Given the research that shows that problematic beliefs can often be hidden due to social
desirability (Krumpal, 2013), I took a closer look at trends in how individualistic thinking could emerge in TCs’ analyses. I found that this type of thinking took the form of (a) individualistic-structural analyses, (b) fully individualistic analyses, or (c) individualistic analyses with distance. The sections below will delve into those distinctions and provide examples of each type of analysis; but first, I provide examples of the structural analyses that emerged.

**Structural**

Analyses that were structural were abundant throughout the data. In these statements, the participants did not blame students or their families or communities for educational problems. In their causal explanations and solutions to educational problems, the participants considered the roles of teachers, school administration, contexts, and power dynamics between different parties. An example of a structural analysis is found in Sara’s proposed solution to a problem of practice. As part of an action research assignment in the urban education course, she reflected on ways to resolve special education students’ discomfort with writing:

My teacher has all of these amazing ideas, strategies, and activities that she would love to do with our students to help improve their writing skills and their relationships with writing. However, because of the fear of getting low scores on the [test], she feels that she needs to only be doing activities that are featured on the test. I feel as though the supervisors do not understand that the Special Education classes feature such varied levels of achievement and capability. It has become apparent that they only care about where the students fall on a chart. If a student doesn’t learn from the way we teach, we need to teach the way that they learn. By opening up a dialogue between the teachers and their supervisors, teachers can better advocate for their students’ needs.

The TC began by prefacing her solutions with structural causal factors that were in play (testing pressures and poor professional communication). For her solution she suggested that the teacher is responsible for improving students’ relationship with writing and their
writing skills. In fact, she further explained that it is teachers who need to adapt to the way their students learn. If she had suggested that the students needed to follow the rules better or adapt to the teacher’s teaching style then that would have been an individualistic account of the problem because it would blame the student by projecting the responsibility of learning onto the student. Sara recognized that the teacher’s instructional content was impacted by concerns over testing. Throughout the semester many participants referenced the pressures of testing as a contributor to problems that are presented in the classroom. Here, Sara expressed that supervisors are not concerned about the classroom problems that the teacher faced but instead they are focused on the test scores of the students. The participant also said that improving communication between teachers and supervisors would be an option that would help improve the writing issue. The participant identified roadblocks that teachers face which could ultimately impact student learning. She gave a causal account that connects numerous structural factors such as testing pressures, supervisor expectations, and she expressed that teachers have the responsibility to help their students. This example demonstrates how participants can provide a multi-layered and structural account of an educational problem.

In a different example—after reflecting on a prior class discussion about teaching in a way that supports students—Margaret asked the following hypothetical questions in her online reflection:

How can we as teachers make sure we are reaching our students in a variety of ways that can still be supported by the structures of the school (considering all the variables, district, administration, parents, students, co-workers, etc.)? Do we leave our feelings towards our students at the door of the classroom or continue to reach them in ways that are meaningful, beyond the textbooks?
Here, the participant expressed uncertainty in knowing if teachers can provide their students with a more holistic education in the presence of school constraints. In addition, she identified several variables that she believed to be the “structures of the school” which impact the educational circumstances. In her view, structures such as the district and administration, appear to preclude meaningful connections with students. This tension between connecting with students and abiding by school expectations is a recurring theme that was voiced by the participants, instructors, and co-operating teachers throughout the semester.

In a survey response, Jessica expanded on an issue that she witnessed in her school placement. She had noticed that once a lesson was taught that students struggled to apply the concepts to the class work that followed. She explained:

I hope to explore the problem that the teachers are having in getting the students to remember what they just learned in the group lesson, and apply it to the individual work immediately thereafter. Typically the teacher(s) lead the group lesson in front of the room with the students seated at their desks or sitting on the carpet in front of the board. I have noticed that the students are bored and easily distracted from the group lessons. Instead of working to draw the students back in, the teacher reprimands the students if they happen to catch them misbehaving or not paying attention. Either way, the problem I am looking at begins when they get back to their seats to begin their individual work based on the lesson they just experienced. The students begin raising their hands almost immediately, and have more questions and blank stares than I can physically get to in a given period. I am finding this true in most subjects, but it is most visible during math. It is for this reason that I am considering focusing on math as the first subject to begin my observations.

In her explanation of the problem of practice, Jessica described the students as getting “bored and easily distracted from the group lesson.” She adds that, “Instead of working to draw the students back in, the teacher reprimands the students if they happen to catch them misbehaving or not paying attention.” These statements demonstrate an assumption of a structural cause to the problem of practice. She attributed the cause of students’
boredom and distraction to the lesson as opposed to an innate inability of students to stay excited and focused. She believed that the teachers do not actively try to keep the students engaged. In addition, the teachers interpret students’ distraction as simply misbehavior instead of a response to an unengaging instructional style. As a result, teachers in her placement reacted punitively. Jessica identified a gap in her teachers’ ability to recognize their own influence on the problem. In her explanation, Jessica placed the onus of solving the problem onto teachers while simultaneously expressing that teachers are not properly identifying the cause of the problem.

In some instances, teacher candidates would make analyses that were structural but they would add elements that were not expanded upon so it was not clear if the analysis was fully structural. For example, after a class discussion about Zero Tolerance disciplinary policies, Angela recalled ways of reevaluating behavior issues in classrooms:

In certain circumstances, I understand removing a child from the class or even school is necessary, but I don’t think that anything should be considered “zero tolerance” without knowing the facts of the situation. This reminded me of a workshop I attended on my placement district professional development day last week. The workshop was strictly on behaviors seen in the classroom and what could be causing these behaviors. This took a toll on me because the teachers around me had so much wisdom as to what could be going on in a child’s life. A lot of the time, there are outside reasons for a child to be acting out and the behavior is almost like a cry for help.

The participant showed a willingness to avoid Zero Tolerance disciplinary policies. She explained that she learned that the behavior issues found in the classroom could often be attributed to outside factors. This idea is in contrast to a child being innately inclined to displaying behavior problems, which other participants had stated on occasion. However, it is not clear that the alternative explanations presented during the workshop were necessarily structural. For instance, the teachers could have used common deficit
narratives about students or their families. For example, comments about students having parents who do not care about their education or that they have bad role models, etc.

From Angela’s statement, we can only infer that the recognition of alternative explanations to behavior issues in the classroom likely played an important role in her reluctance to support Zero Tolerance policies. Her reasoning is that these policies should be reserved for unexplainable and/or extreme situations.

**Individualistic**

Throughout the data structural analyses were abundant; however, individualistic analyses were also expressed. These were infrequent and most often surfaced in the interventions embedded in the study (specifically, surveys and interviews). These analyses were either linked to structural analyses, they were fully individualistic, or they were expressed with distance. The following paragraphs provide examples of these different types of individualistic analyses.

**Individualistic-Structural Analyses.** For Lynn’s action research project, she decided to investigate the relationship between the school’s curriculum and the standardized tests in her kindergarten clinical placement. In her survey, she expanded on the problem using a combination of individualistic and structural analyses:

The school’s curriculum and the standardized testing materials do not match. (The [tests] are testing information that are not yet taught.) A lot of the students are in need of an IEP or special need for their pace of learning, but getting the IEP itself takes such a long time and process. By the time they take the test, a lot of the students are still so behind because they didn’t get the modifications they need. For example, today I helped a student write sight words like “now” and “come.” The student didn’t even know the difference between letters and sounds and seemed like she didn’t develop her phonological awareness yet. The standardized testing tests her ability to read and write. This student needs an IEP but doesn’t have one. Another problem is that the standardized testing itself is not relatable to this community because most children are coming from no schooling and non-
English speaking backgrounds. The information in the tests are too fast paced for the students in [the town] because they need the time and extra help.

In this explanation, Lynn toggles between individualistic and structural analyses. She explains, at the end of the quote, that most of the kindergarten students in that community have no prior school experience or are not native English speakers, yet her account of the problem suggests that those students are in need of IEPs (Individualized Education Programs)—accommodations intended for students with disabilities. There is a body of research that shows that schools often place emerging bilingual students into special education programs rather than provide them with robust language learning supports (Blanchett et al., 2009). This is troubling on many levels, including the fact that special education programs may limit students’ learning experience and their academic trajectories (Oakes, 2005). In addition to her individualistic analysis, Lynn also included three interconnected structural takes on the problem. Lynn said that the school’s curriculum does not match what students are tested on. She also noted that academic bureaucracy moved too slowly to benefit students who presumably needed an IEP. Finally, she believed that the standardized tests do not incorporate students’ communities. These explanations work in concert with her earlier analysis in the beginning, which results in a combined set of individualistic and structural analyses. However, it is interesting to note that in the final action research report that she submitted, Lynn provided this fully structural analysis:

Students have a hard time focusing or cognitively learning due to the fact that they teach math through a video and a short demonstration. There is no student-led conversations, student-focused group works, physical counters or manipulatives to work with, or activities that are made with the interests of the students. There is no culture that is embedded in the lesson and students rarely have the time to share about their personal lives. The problem is that these lessons
are very old-fashioned, where students are expected to behave and learn with the work in front of them.

In this quote, Lynn has explained that the problem is that the curriculum does not support students as opposed to the student having learning disabilities, which was her initial explanation.

Margaret also provided an individualistic and structural analysis of an educational problem. She wanted to know why transitions between activities in her clinical placement classroom took so long and were disorderly. She said:

The cause might be that students are not being reinforced to comply with such rules set in the classroom, because it is not consistent to those at home. Based on my conversations about students and their backgrounds with the teacher, there seems to be a lack of consistency in discipline, rules, and expectations at school vs. at home. Another cause could be that students are not approached in the appropriate manner that engages them in maintaining motivation to complete a task, etc. For example, rather than simply telling students to remain quiet, there could be more verbal attention grabbers/cues/phrases that could be utilized…

Based on her conversations with teachers, Margaret thought students’ parents were a possible cause of the disorderly transitions. She framed the families in a deficit light by concluding that they were not encouraging their children to behave in a disciplined manner at school. Her cooperating teachers had relayed a common harmful narrative of parents not disciplining their children and not holding them to high expectations. However, in addition to this, she also considered that teachers were not communicating with students in appropriate motivating ways. Later, in her final action research report, Margaret mentioned that she spoke with her urban education professor about her research question and the professor “guided [her] in the direction of simply seeking the question of ‘what happens during transitions?’” Despite this shift in problem-framing, Margaret still concluded that parental expectations were partially to blame (in addition to structural
explanations). This time she supported her analysis with urban education readings that discussed tensions between parents’ and teachers’ views of what education means in home and in school contexts. She explained, “It also does not have to do with the fact that ‘parents do not care,’ but that they have separate priorities than some.”

**Fully Individualistic Analyses.** At times teacher candidates would provide an explanation that did not include any structural considerations. For example, Maria sought to investigate her students’ poor test scores. She stated that she hoped “to study the disparities in testing performances because I want to know what goes on with the students during the exam to have them feel like they cannot perform well.” She postulated that “the cause for the poor performances can be the following: lack of studying because they are playing, lack of support at home, and inability to read/comprehend the questions.” This causal explanation is fully individualistic in that it places blame completely on the students. In fact, the original framing of the problem reflected that too. She believed her students possibly struggled with psychological issues in need of unpacking when she asked, “what goes on with the students during the exam.”

In another example, Kelly sought to uncover the best strategies for students who “seek negative attention.” In the quote below, she uses individualistic analyses to explain the behavior she had observed in two students in her clinical placement.

My teacher has a really good understanding of who her students are and really good classroom management, but for one student in particular I know she seeks the negative attention because her home life isn’t the best. In this student’s case not all the details of her home life are clear, but her mom had her very young and I believe she is a single mom, so this student doesn’t always get the attention she requires at home. Personality wise, she’s just naturally a loud, outgoing student who needs that extra attention and since she doesn’t always receive it at home she seeks the attention in school. Based on some observations she tends to seek this negative attention during the hour of reading and the hour of writing. These are two subjects she is a grade level below in. Based on my observation, she gets
easily frustrated in these areas and instead of trying to work on the strategies she does in guided reading with the teacher, she just gives up and begins to seek attention from the teacher, who usually is working with other students at the time… The other student who tends to show negative attention seeking behaviors is currently being tested by the child study team for an IEP or 504, so it’s not clear if he can help his behaviors or not, but I think the same strategies can be tested on this student as well to see if we can turn his negative attention seeking to positive attention seeking. I noticed sometimes when you ignore his negative attention seeking behavior he’ll continue with his assignment, but other times ignoring his behavior doesn’t work…

Kelly applied a fully individualistic analysis to explain the behavior she observed in her students. She framed her students as having innate characteristics that conflict with conventional notions of “positive attention seeking” behaviors (i.e., having a “naturally loud” personality, being “easily frustrated,” or having a possible disability). Interestingly, as Kelly was describing her students’ struggle in two subject areas, she mentioned that the first student had limited access to the teacher for help, yet, she described the problem as if the student’s frustration was the cause. In addition, it was only after she stated that her cooperating teacher was good at understanding “who her students are” that she cited familial problems and parenting style as explanations of the student’s negative attention seeking behaviors. This suggests that her cooperating teacher had influence over producing an individualistic analysis of this educational problem. In the next section, I will show how Kelly came to realize the problematic ways she had analyzed the behavior of one student in particular.

**Individualistic Analyses with Distance.** The third type of individualistic analyses that I found was Individualistic Analyses with Distance. In these statements, teacher candidates would create distance between themselves and their own individualistic thinking. Kelly demonstrated this when she explained during a class discussion that she realized that she was framing a student in a deficit way. I interviewed
her to learn more about her revelation. In this exchange, she explains how her thinking about the student had transformed.

Brandon: Have you seen anything play out, from what you’re learning about in your classes? Playout in that classroom, because I think you mentioned that the student is a student of color?

Kelly: Yeah.

Brandon: I guess you reflecting on yourself?

Kelly: Yeah, ’cause in the books people of color are labeled disruptive more easily than people who aren’t. Am I just labeling him that because of that ’cause he came in and just made everyone disruptive and wow, he just changed the whole dynamic. But when I look back, I feel like if it [wasn’t] someone of color who did the same thing, he is disruptive too but I feel like because in all our books we’re learning more quickly to be—I was like okay, let me see what’s going on in the background before I just go—[sighs to imitate frustration]—Or, in urban [education course]… it was like in a book, if you change the way you set up the classrooms for the call and responses and how it reflects their communities and disruptive behaviors don’t become disruptive.

This participants’ individualistic thinking was revealed when she opened up to the urban education class about her own transformation. The lessons in the readings had provided the participant with a reference point for evaluating her initial thoughts about the student. She remembered the readings and then wondered if her initial analysis of the student was consistent with the problems that were brought to light and she decided that they were. The readings also provided her with a solution to the educational problem she was investigating; she reframed the student’s behavior to avoid analyzing it through a deficit lens. Kelly also considered a call and response teaching format to incorporate communication practices that may be found in the student’s community.

Leslie’s individualistic analyses with distance was revealed in her critique about the urban education program. During one-on-one interviews, I would ask my participants if there were any urban education concepts that they were struggling with or skeptical
about. Leslie used this as an opportunity to reveal the individualistic beliefs that she is wrestling with. She said the following:

Leslie: …It’s not really showing us what other things there are… what all the possibilities are. A lot of it is only applicable for urban communities… some of the ways in which you’d talk to the students. I don’t know.

Brandon: In what way? What do you mean ‘some of the ways you talk to the students?’

Leslie: Yeah, so maybe not talk to students because you should always be respectful to everyone and whatever but, um. Okay, so in a place where I grew up in, um, if you don’t bring in your homework it was kind of like; okay, you failed. No excuses, no bullshit, whatever. We’re being taught here it’s like you gotta think are they acting this way because they are taking care of their siblings? Is it ‘cause you—whatever. In my community growing up, most of the times the teachers didn’t put up with the bullshit ‘cause these kids are spoiled, these kids you know just didn’t want to do it, whatever. And I feel like we’re, not taught to be more lenient but to be more open-minded. Where kids in urban communities because of their disadvantages. Even though what if the kids in urban communities didn’t do their homework because they didn’t like it? What if it’s not always their parents, or you know drug addicts on the side of the street—or one of their parents. What if the kids are just, delinquents? You know there’s delinquents regardless of race… uh, socio-economic status, there’s always going to be kids that just don’t like school that don’t wanna do anything. And I feel like we’re kinda taught to give these kids a lot of second chances, a lot of do-overs. And I just feel like that’s not how life is. That’s not really preparing them. Unless you have heard from the family that the dad just died or we just don’t have power. You know? That’s a basis. But to just to be like this is a low-income school and the kid’s always wearing dirty clothes. Maybe the kid’s wearing dirty clothes because they don’t wanna change? I never wanted to change as a kid… I think that’s kind of what—is that always how I have to approach these situations? That’s I guess kind of what I mean.

In this exchange, Leslie explained her struggle to understand to what extent she should engage in structural thinking. She questioned whether all student-related issues should be met with understanding and consideration for various factors that could affect a student.

She cited her childhood teachers’ no-nonsense approach as an alternative to considering situational or structural factors that affect students. In the conversation, her response and tone suggested that categorizing students as delinquents was simpler and therefore a more
likely explanation. She believed that providing students with second chances would improperly prepare them for the real world. Leslie, who identifies as White, grew up in a mostly White middle-class environment and she had previously mentioned that it was different than the environment found in urban schools. However, in the quote above, she assumed that the circumstances in urban schools were the same circumstances that would be found in her childhood schools. Another inconsistency is the lenses that she used to frame urban students; She applied a lens of empathy and one of criminality, when she described them as being “disadvantaged” or possible “delinquents.” Despite her claim that delinquency occurs regardless of race, there is research that shows that teachers apply a lens of criminality to Black and Latino students in particular (Skiba et al., 2014). This lens can have deleterious outcomes for students of color.

Leslie also showed that she knew how to use structural thinking. She was able to list structural factors that could have an impact on students in urban schools (being marginalized, having familial obligations, economic struggles, and needing second chances). When she listed the structural factors that students in urban schools may experience, she did so with a flippant tone that it, in effect, negated the structural considerations. This may represent another issue that could arise in urban education programs. While some teacher candidates may use structural narratives as a tool to better understand educational problems, they may also use them in a cynical way, which could be just as harmful as individualistic narratives.

Earlier in the interview, Leslie expressed an interest in perhaps teaching in a school that is not urban. As Leslie continued, she questioned if an urban education program could actually prepare a teacher to teach in other settings. This indicates that she
viewed the strategies and the ways of thinking that were recommended in the program to be incompatible with non-urban schools. This could have been a veiled expression of resistance or resentment toward applying an equity lens to social issues—this is a well-documented phenomenon (Mueller & O’Connor, 2007; Picower, 2009). In any case, her concerns suggest that more work should be to be done to help TCs see the need for the social justice pedagogies and that these pedagogies are intended to counter the educational injustices that students in urban schools experience.

**The Influence of Urban Education on Teacher Candidate Thinking**

In the earlier sections, I showed how teacher candidates engaged in structural and individualistic analyses of educational issues. Structural analyses were found frequently throughout the participants’ spoken and written data but were often limited to classroom- and school-level analyses. When individualistic analyses surfaced, it was either connected to structural ideas, appeared in isolation, or was expressed with distance. While conducting my analysis, I noticed that these individualistic statements most often emerged in the interventions of the study (surveys and interviews) as opposed to class discussions and assignments. While it is possible that the TCs felt enough comfort with me that they were more open to making problematic statements, I also wondered in what ways could the expectations and activities embedded in the program influence the production (and scope) of structural and individualistic thinking. I first reviewed my field notes and auxiliary codes for emerging themes that could explain the phenomena and then I used a CHAT analysis to help guide my examination (Cole & Engeström, 1993). This theory is intended to draw out the cultural and historical contexts of an activity system in order to help researchers better situate their work and the changes that occur in
an environment. Using the six components of the second-generation CHAT diagram (Cole & Engeström, 1993), I identified components that could have a strong influence on the findings (See Figure 1).

Figure 1: Urban Teacher Education Program Activity System Diagram

Note. This figure shows the six basic components of the activity system and some of the interconnected and contradictory factors that govern it.

In my analysis, I incorporated my presence and study interventions as a part of the activity system. While the study was not intended to specifically help TCs meet any particular learning goal, it was a part of the overall context which drew out the aforementioned patterns in structural and individualistic thinking. In order to identify the
object of the activity system I reviewed the urban education program literature, course syllabi, and informal interviews with the instructors. The object of this activity system was to have TCs learn to engage in thinking and actions that are justice-oriented and provide equitable support for students who are often marginalized. This activity system could be summarized as “helping TCs to develop a social justice disposition.”

I identified the communities involved in this activity system by reviewing stakeholders, common major influencers of thoughts, and those directly impacted by TCs’ achievement (or not) of the object in the system. The communities I found included other TCs, professors and university administrators, the researcher (me), those in the clinical placements including teachers, school administrators, and students. Other communities in the system included the family and culture of the TCs and students, and broader society. These communities play a role in how TCs develop a SJ disposition. While they are all a part of the activity system, they are not always actively participating in the same ways. Some communities, may not even know that the SJ disposition object is sought after. However, their presence in the system may still play a role in shaping TCs’ learning experience. For example, Lynn found that non-punitive approaches to changing students’ behavior had been effective for her cooperating teacher. She stated, “There are always certain students who misbehave, gets cranky, distracts others, and cry - these strategies seem to work because after a teacher talks to them or after they come back from their break, they seem to do okay.” Here, the students may not be fully aware of the activity system but their positive response to non-punitive strategies may influence Lynn’s beliefs about how useful a less harsh and more SJ approach to classroom management may be. This might increase her likelihood to adopt a SJ disposition.
To examine the division of labor in this system, I identified the core forms of labor that were necessary to help TCs accomplish the object of the system. This included the creation of the urban education program by the university (at multiple levels such as university level and the School of Education level). Within the program, professors are expected to model and teach TCs how to teach with a SJ disposition. Cooperating teachers in the clinical placement contribute to this activity system by modeling how to teach and guiding TCs as they develop this skillset. It is important to note that the people who are involved in this division of labor may have contradictory beliefs and practices to the ones promoted in the SJE program. For example, as mentioned in the previous chapter, Charlotte explained that her cooperating teacher stated, “You need to put these kids in line.” This teacher had an authoritarian view of teaching which is in contradiction to the student-centered model of teaching that is embedded in SJ pedagogies. However, it was this contradiction that was an illuminating experience for Charlotte, which likely helped her during the learning process.

To identify the tools in the activity system, I reviewed the major tangible and intangible artifacts that were intended to support TCs in developing a SJ disposition. This included assignments, activities, and discussions that were present in the SJE courses. It also included practical applications of what was being taught, such as making observations in the clinical placement, conducting action research, or student teaching. These tools were developed and encouraged in the activity system by stakeholders in order to provide TCs with conceptual and practical knowledge about equitable teaching. One professor stated in her syllabus that “Ultimately, our goal is that students will be able to describe and adopt a capacity-oriented approach to teaching in urban communities.” In
addition to the program-developed tools another set of tools that was in place was the study interventions. These tools differed from the program tools because they were not intended to actively promote a SJ disposition in TC, so they were guided by a separate set of rules than the assignments.

To identify the rules, I searched through the program literature and formal and informal instructions and guidance (e.g., assignment instructions, encouraged and discouraged language, well-known social norms, and lessons that TCs said they had learned from the clinical placement experience). Many of the tools that were used by the program, such as the assignments, were guided by tacit and explicit rules that anticipated growth, structural thinking, and equitable practices from TCs. While other tools such as the clinical placement experience, evoked individualistic rules and a limited scope of analysis for TCs. Moreover, the study interventions were guided by rules that supported TCs’ candid expression of their thoughts, which could allow individualistic ideas to surface.

While each component of the activity system is connected to the object (including the subject’s prior, current, and future beliefs and practices) I focused on the tools and rules of the activity system in producing the findings for this section of the chapter. I chose these components because they are more likely to predict the specific patterns I found in the data. For example, the fact that there are multiple communities or that a division of labor exists does not say much about what patterns could be found in the data. In contrast, the tools and the rules have greater explanatory power because they explain why and how patterns emerge, which could allow a researcher to better predict the patterns that could be found in the data.
Guiding the Production of Structural and Individualistic Analyses

As I drew upon the key factors impacting teacher candidates’ development of a social justice disposition, I found that the tools and rules of the activity system had the potential to produce the unexpected findings that I had reached. Specifically, I saw how categories under those components were driven by different underlying missions and consequences, which could lead to the discourses that the TCs engaged in. As a researcher, some could argue my primary focus is to “neutrally” examine the what and the why of a phenomenon. In addition, the researcher in this type of study has no influence over the TCs’ grades or credentialing. A teacher educator (via the preparation program) on the other hand, could be seen as a person who explains the what and shows the how to the teacher candidates. In addition, teacher educators and the program explicitly hold a particular perspective (i.e., social justice) and they have influence over TCs’ grades and credentialing.

From these differences, I could see that the program and I had tools that asked fundamentally different questions and prompted different ways of thinking; and, we operated from rules that could lead to different types of discourses from the participants. The researcher intervention tools and rules necessitated that TCs verbalize their metacognition about current and prior beliefs and that they engage in causal thinking and candid speech. By contrast, the program’s tools and rules necessitated that the TCs verbalize metacognition about prior and new beliefs and that they engage in observational reporting and using structural thinking along with measured language. The following are samples of the tools and rules given to the TCs by the program that help to explain why
structural thinking was found abundantly in the classroom discussions and assignment data (See Table 9).

Table 9: Activity System Tools and Rules

<table>
<thead>
<tr>
<th>Classroom Tools and Attached Rules</th>
<th>Urban Teacher Education Activity System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided discussions</td>
<td>• “Where have you been challenging your own biases—just like we want other teachers to do? How has that been happening for you in your classroom?” (Professor’s spoken instructions)</td>
</tr>
<tr>
<td></td>
<td>• “Respond to these prompts: I thought, I learned, I can apply.” (Professor’s written instructions)</td>
</tr>
<tr>
<td></td>
<td>• “How is attending to language development related to issues of power and culture?” (Professor’s written instructions)</td>
</tr>
<tr>
<td></td>
<td>• “…meaningful connection to week’s readings (discussion should not solely focus on experiences and observations without the lens of the texts…” (Professor’s written instructions)</td>
</tr>
<tr>
<td>Assignments</td>
<td>• “Identify the ways in which you have attended to language, culture, and power.” (Course Syllabus)</td>
</tr>
<tr>
<td></td>
<td>• “…take some of the judgment that comes naturally in our questioning—try to take that to more exploratory questions. So, instead of saying, ‘why aren’t they doing something?’—‘what are they doing?’” (Professor’s spoken instructions)</td>
</tr>
<tr>
<td></td>
<td>• “…the authors advocate for ELs to be exposed to complex texts as opposed to simplified texts. Why? How can you take this idea and apply it in your content area and/or future teaching?” (Course Syllabus)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmatic Rules</th>
<th>Program and credentialing expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• “Develop meaningful understanding of diverse students and their experiences and communities and the social, economic, historical, and political dimensions of urban settings and schools” (Course Description)</td>
</tr>
<tr>
<td></td>
<td>• “Be caring, competent, rigorous, and reflective practitioners” (School Website)</td>
</tr>
<tr>
<td></td>
<td>• “Professional Learning. The teacher engages in ongoing individual and collaborative professional learning designed to impact practice in ways that lead to improved learning for each student, using evidence of student achievement, action research, and best practice to expand a repertoire of skills, strategies, materials, assessments, and ideas to increase student learning.” (Course Syllabus)</td>
</tr>
</tbody>
</table>
| Course expectations | • “…students will become more knowledgeable about the contexts of students and the issues facing
urban schools and communities…” (Course Syllabus)

- “They will apply the historical and political knowledge that they have gained about urban communities to constructing justice-oriented views of curriculum, pedagogy, classroom environments, and teacher-student relationships. Ultimately, our goal is that students will be able to describe and adopt a capacity-oriented approach to teaching in urban communities.” (Course Syllabus)

Note. This table provides examples of the tools and rules that help elicit structural thinking in teacher candidates.

The tools and rules found in this activity system help to illuminate why structural analyses occurred so frequently in the classroom and assignment data. While different components of the program did allow for some open-ended discussion and analyses, many of the tools and rules embedded in the program made it clear to the TCs that they were both expected to and assumed to undergo a change in thinking that would align with a social justice disposition. Undoubtedly, the framing of the professors’ questions or the rules in the activity system were sometimes used as a way to prevent TCs’ from experiencing discomfort. Specifically, the rules (in the form of instructions, for example) helped to create a distance between the TCs and their potentially problematic beliefs. While there can be benefits to this instructional technique, if a teacher preparation program does not incorporate enough tools and rules to help TCs reveal their current beliefs and explanations of educational problems then these programs risk engaging in a form of confirmation bias. They will anticipate growth in their teacher candidates and will primarily setup tools and rules that will detect only the learning outcomes that they hope to see. During this study there were not enough opportunities for TCs to either express current problematic thinking or to question the underlying
philosophies/perspectives that guide social justice pedagogies. Despite these shortcomings, a positive outcome of the activity system is that there was abundant evidence that teacher candidates were able to engage in structural thinking.

**The Effect of Clinical Placements and Class Assignments on the Scope of Analyses**

Another finding that warrants closer investigation is the limited scope that TCs would use to analyze educational problems. Oftentimes their analyses were limited to classroom- and school-level considerations and not larger influences such as the economic or political structures. As I reviewed the CHAT analysis and my auxiliary codes from my prior analyses, I saw emergent themes in the data that helped to explain the phenomenon. The themes were: the limitations of a short-term action research project and the lessons learned from cooperating teachers in the clinical placements.

In the urban education course, a major assignment was the mini-action research project. This project required TCs to conduct inquiry-based action research in their clinical placements. The teacher candidates had only six weeks to develop a research question, conduct a review of literature, collect and analyze data, and propose an intervention. In addition to the time constraints, the description of the project (and its name “mini-action research”) contributed to limiting the scope of TCs’ analyses. While the instructions of the project did state that TC could investigate “a problem of practice or a structural issue,” the instructions also said, “This small-scale research paper gives you the opportunity to consider a question that has emerged for you in your clinical placement classroom.” The instructor also reminded the TCs that “Our instinct is going to be to do questions that are too big so my goal over the next 15 minutes, as you start brainstorming, is to bring it down really small.” As is evidenced above, it is clear that time constraints
and the rules surrounding the assignment contributed to limiting the scope TCs’ analyses to school- and classroom-level analyses.

In addition to the practical constraints that limited the scope of TCs’ analyses, there was a more troubling contribution. Teacher candidates often shared that their cooperating teachers felt they had little power and support in their schools and that they could only control what happened in their own classrooms. For example, in a written reflection, Sara stated, “My teacher explains that she had this unspoken truth of just ‘closing the door and doing what she needs to do.’” Rosa asked her cooperating teacher what issues she faces and Rosa found that “the majority of the issues [her teacher] notices are connected to the school hierarchy. Thus, these were circumstances she has little control over.” Regarding a chronic scheduling issue that affected pull-out special education teachers, Angela stated, “I believe that the pull-out teachers feel inferior to the general education teachers which is why they do not speak out.” Melanie explained that her cooperating teacher’s supports were unhelpful then she exclaimed, “I’m afraid of having a team that doesn’t support me!” Lauren, said that several teachers have stated “how this [gifted] program could be better constructed; yet no one says anything to administration, because they feel their opinions would fall on deaf ears.” Jessica did looked beyond school-based structures to explain the challenges teachers face. She wrote, “The work of breaking down a curriculum so fortified by politics and funding and the status quo can seem to be too much for some teachers.” Collectively, these reflections show that clinical placements play a role in how broadly the scope of TCs’ structural analyses can be applied. The teacher candidates are constantly reminded that teachers in their school placements felt unsupported by the administration and their colleagues. As a
consequence, the teachers felt that they were forced to just limit their focus to the activities inside their classrooms. This point was aptly summarized by Lauren while she was completing a lesson planning activity. She stated, “close your door and get it done your way.”

**Conclusion**

The present study was an investigation into the emergence of social justice thinking within a teacher preparation activity system. Specifically, I sought to uncover patterns in the application of this type of thinking within an urban teacher education program. As part of that investigation, I saw that structural analyses were frequently made by the TC cohort yet they were often confined to school- and classroom-level analyses. When individualistic analyses did occur, I found that they typically happened in the study interventions and not in the contexts of classroom discussions or assignments. This led me to examine the reason behind these patterns in structural and individualistic thinking. Using a cultural-historical activity theory analysis, I found that the tools and rules of the activity system had influence over the ideas that TCs would express. Specifically, the program used activities and expectations that would guide TCs to think structurally (with limitations) and to avoid making individualistic statements. These findings provide further support to theories of epistemic cognition that suggest that specific features of a learning environment can elicit different ways of thinking in learners.

The findings from this study are intended to show how structural and individualistic thinking can emerge when TCs analyze a particular educational problem. It can emerge in ways that sometimes appear as a unitary theory (i.e., fully structural or
fully individualistic analyses) and other times it can appear as a disjointed set of beliefs (i.e., individualistic-structural analyses). These findings support models of epistemic cognition such as the epistemological resources theory and the ideology in pieces framework that suggest that people can engage in different types of thinking about a particular topic depending on the characteristics of a new context. The findings can also help social justice education researchers design activities that promote more candid discourse from TCs. In the setting that I investigated, TCs were given activities and expectations that promoted structural thinking. If programs could include ways for TCs to reveal their problematic beliefs or share their doubts about what they are learning then teacher educators could have a more accurate idea of how TCs’ social justice dispositions are developing.

The analytical statements that teacher candidates make are just one indicator of the dispositions they may be leaning toward. The findings have also provided a better picture of the relationship between a teacher education program and TCs’ social justice thinking. This begs the question: How might teacher candidates apply what they learned from a teacher preparation program into practice? In the following chapter, I will explore the trends in the pedagogical decisions that teacher candidates made and I will reveal which students TCs considered while engaging in a lesson planning task. In the investigation, I will also show the successes and limitations of their pedagogical decisions. This will provide teacher educators and researchers with additional insights into how social justice dispositions can be expressed and enacted.
Chapter 6: Teacher Candidates’ Pedagogical Decision Making and Commitments to Student Difference

Researchers have investigated teacher preparation programs that aim to foster social justice dispositions in their teacher candidates. These investigations tend to focus on the beliefs of teacher candidates, the recruitment of diverse teachers into the profession, the content of teacher preparation curricula, and the role of teacher educators in these programs (Cochran-Smith et al., 2015). From the onset, teacher preparation programs often encourage their candidates to adopt social justice pedagogies that would allow their future students to affirm their identities, become active participants in the learning process, and to critique structural inequity. The significant attention that is paid to the inputs of teacher preparation programs warrants investigations into the kind of outputs that they produce. What is of particular interest is the relationship between teacher candidate beliefs and their potential practices. To explore this relationship, I sought to answer the following questions:

1. What were common pedagogical decisions teacher candidates made while lesson planning and did their decisions align with social justice pedagogies?
2. During lesson planning, what kinds of student differences did teacher candidates consider and why did these considerations emerge?

I investigated these questions by designing a think aloud protocol to detect trends across participants. For the first set of research questions, I found that teacher candidates’ pedagogical decisions included: (a) making curricula relevant to students, (b) attending to students’ communication skills, (c) helping students uncover whys and hows, (d) calibrating lesson complexity, (e) supporting student agency, and (f) cross-curricular
integration. I found that the candidates demonstrated pedagogical decision making that had the potential to align with social justice pedagogies but ultimately fell short in important ways. For the second question, I found that TCs’ pedagogical decisions considered students who may differ from their peers due to their: (a) background knowledge or experience, (b) communication or social skills, (c) access to resources, and (d) social identity and perspectives. In my analysis, I found that these considerations were not arbitrary but had in fact been a range of explicit and tacit commitments made throughout the semester. Collectively, these findings show that social justice dispositions can emerge in the stated beliefs of teacher candidates and potentially in their professional practice; however, there is significant room for improvement.

I begin this chapter by describing the design of the present study. I then discuss the pedagogical decisions the teacher candidates made and examine the relationship between those decisions and social justice pedagogies. Next, I uncover the student differences that the teacher candidates accounted for and examine where else those considerations emerged throughout the corpus of the data. Finally, I discuss the successes and shortcomings of the participants’ engagement with the professional practice of lesson planning and make recommendations on how to improve the outputs of teacher preparation programs.

**Data and Analysis**

In order to analyze teacher candidates’ pedagogical decision making in situ, I used the professional practice of lesson planning as a realistic context for their pedagogical thinking to emerge. I used a verbal think aloud protocol to investigate these issues because of its record for detecting epistemic thinking in action (Barzilai & Zohar,
As the TCs engaged in lesson planning, the verbal think aloud protocol necessitates that the thought process of the participants is made explicit. Initially, I selected five participants. I selected those with whom I had spent at least 90 minutes conducting one-on-one interviews. This criterion was applied in order to assure trust via familiarity. One participant was unable to participate due to a scheduling conflict. The four TCs who participated were Alex, Charlotte, Lauren, and Leslie. The study was conducted after both the Urban Education II and the Teaching Emerging Bilinguals II courses had ended. Each participant was asked to contribute, on separate days, approximately 1.5 hours to do an activity. The activity was done on a laptop that included a word processing program, a web browser, and a screen and voice recording software. Each participant was supplied with an electronic document that had an outline of a lesson plan and the instructions for the activity (See Figure 2 and 3). The instructions asked that the participant create a 6-day unit on any topic of their choosing for the students in their recent clinical placement class. The document should also include key moments throughout the 6-day unit and at least the first day of the unit should have a fully developed lesson.
Figure 2: Six-Day Unit Instructions

**Instructions:** Imagine it is the start of the academic year and that you are the only teacher in the class that you are currently observing. As the teacher you must create a six-day unit that is guided by the Writing Standard below. For this activity (1) come up with an overview of the key moments in the six-day unit you’ve designed and (2) prepare a lesson plan for the first day of the unit. You do not have to fill in every box. Select a topic of your own choice to focus the unit on. Please do not use a lesson plan that you have already developed in the past. Feel free to download or copy and paste links, texts, or pictures to complete this activity.

**Student Learning Standards**

**Writing Standard:**
[The student can] Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.

Figure 3: Blank Six Day Unit Document for Participants

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson topic:</td>
<td>Lesson topic:</td>
<td>Lesson topic:</td>
</tr>
<tr>
<td>Learning goal:</td>
<td>Learning goal:</td>
<td>Learning goal:</td>
</tr>
<tr>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>Assessment:</td>
<td>Assessment:</td>
<td>Assessment:</td>
</tr>
<tr>
<td>Other:</td>
<td>Other:</td>
<td>Other:</td>
</tr>
</tbody>
</table>
I also provided the participants with an authentic literacy-related Common Core standard to incorporate into the unit. This was done to reproduce a typical external expectation that in-service teachers face in professional practice. The participants were told they could take up to one hour if needed and they were allowed to use the internet for assistance. I asked that they verbalize their thoughts and reasoning while they are doing the activity. They were told that I would occasionally ask them to expand on certain thoughts and choices that they made. After each participant completed their lesson plan, I asked follow-up questions to gain more insight into their experience during the activity. It is important to note that prior to the activity, Leslie had a long day. She stated, “Can I look up online, like, lesson plans? I’m so fried out. I don’t think I could think of something on the spot for 6 days.” Both Leslie and Charlotte completed the activity in approximately 40 minutes while Alex and Lauren used the full hour. Leslie stated numerous times that
convenience was a priority for her while completing the activity; however, Charlotte gave no such indication.

For my analysis, I first transcribed the spoken data. I then used Fives et al.’s (2017) definition of *pedagogical decision making*: “the general and wide scope of decisions teachers make as part of the entirety of their professional practice” (p. 272) to guide coding. I also coded the transcriptions to identify *the enactments of or preferences for a pedagogical choice sought by the participant*. Trends in general pedagogical characteristics were identified when they were discussed by at least two participants during at least two occasions during their respective think alouds (See Table 6). To answer the second set of questions, I searched the transcriptions for references to student differences. Student differences were determined when a participant made any distinction between students (excluding their grade level). I then searched the four participants’ verbal data from the whole semester to find further references they had made to the student differences that they accounted for during the lesson planning activity. For each student difference, the TC had referenced it on at least two occasions prior to the lesson planning activity.

**Trends in Pedagogical Decision Making**

Teacher preparation programs often encourage their candidates to adopt social justice dispositions; however, there is little research beyond self-reports that show if these efforts are successful (Larson & Bradshaw, 2017). The participants in this study were immersed in readings and activities designed to draw attention to structural inequity and to promote the enactment of social justice pedagogies in schools. Courses in this urban education program included readings by Christopher Emdin, Jeff Zweirs, Gloria Ladson-
Billings, Lily and Charles Fillmore, and Mariana Souto-Manning, among others. The courses also included activities intended to enlightened TCs about social issues such as an action research project and cooperating teacher interviews. The TCs also engaged in lesson planning and lesson planning revisions. These activities are not uncommon in teacher preparation programs that aim to foster social justice dispositions. The present study sheds light onto how the inputs of the program impact the outputs that TCs produce. I examine the pedagogical decision making of teacher candidates to determine what kinds of dispositions they hold. This study contributes to the literature in that it examines dispositions in action as opposed to self-reports which could be prone to leading questions and participant bias.

In the next section, I list trends that emerged in the think aloud data and provide evidence and my analyses. Trends were pedagogical decisions or preferences that were expressed in the think aloud data across at least two participant datasets and had occurred in at least two disparate instances for each participant. In the sections below, I include evidence from two or more participants. Throughout the data some of the participants made brief comments such as “it just makes it more meaningful” or “try to make it useful knowledge” but I only expand on instances in which their thinking was unpacked and/or embedded in their choices.

Making Curricula Relevant to Students

A major pattern that was found across the data was participants’ desire to create relevant lessons for their students. For participants, relevance occurred when themes in the lesson were addressed regularly to familiarize their students with the concepts or when the lesson could connect to their students’ lives. For instance, when designing her
science unit on plant growth, Lauren sought to construct relevant lessons by exposing her students to the science concepts numerous times and connecting those concepts to students’ experiences. She explains:

So I think you can kind of make [the lesson] relatable to them. Just like, you know, when you’re making your observation about the plant that’s not thriving that’s kind of like when we come to school and we’re having a bad day—you make that project part of your everyday talk so even when it’s not a day that you’re doing this project you can still talk about it.

For Lauren, a relatable lesson is one that can be used to connect students experiences to the curriculum. In the above quote, Lauren compares a student’s day to a plant in the lesson in order to make the content relevant to her students. She suggests that connections like these should occur throughout the unit. For her, relatability happens when a student is familiar with the content through the use of every day talk that draws connections to the students’ lives. Later she adds:

If you’re doing something like this and you’re stretching it out over six days and you’re only talking about it that one day it’s kind of out of their brain for the rest of the days. So if you’re able to still reference it through different things or through different ways, then I think it stays fresh in their minds and keeps the excitement going.

In other words, students are better prepared for learning when the content has been discussed regularly and it connects to their lives. This ultimately makes the lesson more meaningful to the students because the lesson is no longer remote and disconnected from them.

Charlotte created a relevant lesson for her students by designing an inquiry-based science unit that promoted local environmental activism. Early in her lesson planning she said:

I’m just thinking about things that they could—um, go out and discover for themselves and then make a plan of action to like help... So I’m thinking I might
want to do like—like erosion or something like that. What popped into my head was at the school that I’m at right now, they just did some construction in the back and they like didn’t construct it right and there’s been a lot of erosion and runoff into the pavement. So, there’s like an example of it so I’m thinking maybe I could talk about erosion and then they could actually go and look for things like that.

The unit that Charlotte was developing was based on an authentic problem that was impacting the infrastructure of the school. She hoped to have her students “discover for themselves” and to “make a plan of action” to help solve the problem. Charlotte further articulated her desire to make the content relevant to her students’ lives. She said:

That’s like interaction with their world you know what I’m saying? And, then bringing it to them—the students. How does this concept actually relate to your lives? How does it affect your lives and how do you affect that [erosion]?”

Charlotte’s decisions created a more meaningful learning experience for her students because the subject matter is relevant to their lives. In addition, having the students generate solutions to the problem they would investigate allows them to enact agency in their own community. This inquiry-based unit connects the science content to the lived experience of her students and therefore makes the lesson relevant and meaningful.

In the English unit she designed, Leslie incorporated her students’ lives by having her students do an assignment in which they would write about their favorite foods.

Leslie: [I’ll] have them write a short paragraph about their favorite foods and then switch with their neighbor. Their neighbor will identify at least three vocabulary words that could be stronger.

Brandon: So why did you choose that activity?

Leslie: Well— so it’s probably the easiest because people love— little kids—you know it’s not like I’m having them write about a book they’re reading. Their favorite food, it’s very simple. They love like ‘Ew, gross your food’s like whatever.’

For Leslie, she chose an activity for her students that she believed would be easy and fun for them to discuss. While ease and enjoyment were the underlying justifications for this
pedagogical decision, the activity is still drawing on the lives of the student because they would be discussing foods that they like. The other participants explicitly stated they sought to make their lessons relevant to their students and this theme emerged in the activities they designed; however, for Leslie, this was the only evidence in her data that demonstrated relevance to the lives of students.

The data from these participants show that TCs can have dispositions that seek to make curricula relevant to students’ lives. Throughout the think aloud data most references to relevance to student lives were done on the interpersonal level. Only Alex made any reference to social identities—in the Student Difference section, I will explore how Alex used the curricular content to make his lesson relevant to his students lives. Charlotte’s plan of action activity that requires students to propose a solution to a school problem is the closest pedagogical decision that addresses structural issues; Students could potentially interact with the school system and stakeholders in an agentic manner. Social justice pedagogies ask that students be able to critique inequity. If TCs are not overtly addressing social identities and the structural factors that are relevant to students’ lives then they fall short of enacting social justice in important and meaningful ways.

**Attending to Students’ Communication Skills**

Throughout the think aloud study, participants frequently attended to their students’ communication skills. Usually, these considerations were connected to peer collaboration, language development, or student choice. For example, in Alex’s lesson he included group meetings in his lesson plan because “group meetings keeps [students] in check, builds teamwork skills, and communication because some don’t like talking to each other.” This feature of his lesson plan was used to facilitate social interactions and
accountability between students. In another example, Charlotte focused on students’ communication skills when she allowed her potential students to express their knowledge in different ways. When she explained how she would evaluate student learning she said:

Charlotte: If like [the information is] presented clearly. Um, I guess I’d give them choice in how they’d want to present the information—whether it’s on a poster or online or maybe it’s like a blog sort of thing…

Brandon: You said maybe also making sure that it’s presented clearly. Why is that?

Charlotte: Um, just so that everyone else can sort of understand it. I would accept like whatever like based on what the student—how the student expresses themselves or how they write or maybe it would be typed or something like that but it can’t—it can’t be a bunch of letters or pictures crumpled up. I’d want them to actually show that they or they’re working towards making it presentable-ish.

In this example, we see that Charlotte placed value on how her students would communicate their understanding of the lesson. For her, a clear presentation was one marker of satisfactory work done by a student.

Meanwhile, Leslie’s entire unit was dedicated to improving students’ vocabulary. Her concern for supporting student communication is evident in this exchange:

Leslie: [For] activities—they should have… vocabulary they could use instead of saying ‘good,’ ‘bad,’ like different ways. So they’ll create a booklet I guess…

Brandon: And, so why that activity?

Leslie: Um, so I feel like most kids probably don’t know how to spell stronger vocabulary word choices or they just don’t know it. So, I guess they could use their Chromebooks to search for synonyms.

Here, Leslie expressed her concerns about students’ ability to know or spell more sophisticated words. She made a pedagogical decision to include an activity that would require students to develop their verbal knowledge. Later, in the Student Difference section, I show the connections between Leslie’s prior beliefs, her cooperating teacher’s priorities, and assigned readings about student literacy and how that evolved into a commitment to improving students’ communication skills.
One way that Lauren attended to her students’ communication skills, was in her efforts to use sample lesson plans that incorporated Common Core standards that matched the language arts standards she was provided in the instructions. While searching for lesson ideas online she stated:

So, for first grade—just going to see what they’ve got here [Scrolling]. So this actually has some of the Common Core standards already listed for um [pauses]. Looks like some language arts…So this is coming out of California. Um, you know, that’s another thing. When you are looking at other people’s projects, what state are they from? Their standards are going to be different than our standards so I’m making sure that it’s going to fit.

When searching for science lessons to use as a model, Lauren did not settle for any lesson. Her evaluation of other lessons was dependent how well the model lesson overlapped with the language arts goals described in the Common Core standards. This is of particular interest because the standard that was in the activity was only explicitly referenced by one other participant (Leslie), and it was done a fleeting manner.

In the data we see that the participants made a number of pedagogical decisions that attended to students’ communication skills. Alex designed a collaborative task to encourage students to talk to one another. Charlotte decided that her students should have freedom in how they expressed their understanding. Leslie focused on developing her students’ lexicon. And, Lauren prioritized finding sample lessons that could satisfy a Common Core language arts standard. These decisions could in some ways reflect social justice dispositions. For example, creating robust language activities may help to counteract academic discrimination that affect ELLs (as Leslie explains later on) (Fillmore & Fillmore, 2012). Or, allowing flexibility in student expression could make it easier for students to demonstrate learning. But some decisions could become problematic because have the potential to reproduce inequity. For example, teachers may
use known disparities in language instruction as a justification for engaging in practices that are linguistically assimilative. Teachers also run the risk of essentializing the experience of their students and assuming that they all have a similar pedagogical need merely because they are a part of a particular social group (Gutiérrez & Rogoff, 2003).

**Helping Students Uncover Whys and Hows**

Three of the participants made pedagogical decisions to have their students understand the whys and hows (or mechanisms) of phenomena found in a given topic. These topics ranged from the scientific realm to students’ own thinking. One way Charlotte implemented this decision into her lesson planning was by creating an experimentation station for her science unit. She stated, “So maybe like these first two days would be the stations—the experiment stations, and then this [Day Three] would be ‘How does erosion affect where we live?’” Charlotte had setup a process to aid her students in understanding a scientific phenomenon and its impact. The first step involved experimentation to unpack the mechanisms involved and then the second step was creating an open-ended question that connected the phenomenon to students’ lives.

Lauren underscored the importance of students uncovering the whys and hows of phenomena when she drew a contrast between her ideal lesson and a shallow lesson. The exchange below occurred when she came across a sample science lesson online.

**Lauren:** Um, a project like this… ‘Here’s a coloring sheet, oh it’s winter let’s draw a snowman.’ No—why does it snow? Why can we make a snowman? The snow fell from the sky, so how do we push it together? Why does it stick together and how are we able to put it all together? That’s what I want to know not just, ‘Ok, it snows. It’s cold. I made a snowman.’

**Brandon:** So why are those types of questions important for you?

**Lauren:** Um, because it’s the process… especially younger kids they just want to know why. [It will] help them question more things as they get older, um, and hopefully develop a deeper interest in somethings.
In that example, the participant expressed the need for lessons to help students answer why and how questions. She believed that shallow lessons are unhelpful and do not reveal important processes in scientific phenomena. For her, this lack of depth dampens students’ curiosity.

In Leslie’s vocabulary unit she created an activity that would help draw out students’ metacognitive thinking. In the activity, the students are expected to replace a paragraph they wrote with more sophisticated words and then they would:

Leslie: Explain why they chose those substitute vocabulary words.
Brandon: And why is that an activity?
Leslie: Well, because if they…could just go in their booklet and point out three words and be like, ‘Okay, I’m going to do this.’ [But] If they explain why, it has to make sense and I’ll know if they actually understand the words that they are choosing or if they just choose randomly…

For Leslie, having students justify their choices reveals their understanding of the content. If her students can provide a cogent explanation of why they selected certain words she can know that they understand the words—it is an indicator of learning.

In these examples, the TCs helped their students uncover the mechanisms of scientific phenomena and their own thinking. This pedagogical decision could be applied to social issues, especially those that relate to structural inequity. For instance, Charlotte could scaffold discussions about how social inequities can affect the physical infrastructures in their communities. In general, identifying hidden mechanisms in social structures is a crucial aspect to correcting educational injustices (Apple, 1979). Teacher educators should work to insure that TCs’ efforts to support mechanistic thinking in their students is harnessed for social justice purposes.
Calibrating Lesson Complexity

Each participant demonstrated some calibration in the complexity of the unit they
designed. Most often those calibrations were used to separate the lessons into manageable
steps while in one instance it was used as a way to prepare students for content that they
may find disturbing. As Alex designed his language arts lesson, he adjusted his lesson
plan to fit what he believed his students would be able to handle intellectually and
emotionally. He first created a WWII-themed research project for his students to
complete. As he was outlining the details of this project, we had the following exchange:

Alex: I might just do events instead of [perspectives]. I think it’s too advanced
for them. They have trouble writing essays and they sometimes have
trouble grasping main ideas, so I feel like, they would, just from the sides
perspective they wouldn’t grasp it as well as maybe an event… Japanese
internment camp, pearl harbor—I don’t think I could do the atomic bomb
that’s a little dark.

Brandon: Why is that?
Alex: It’s really bad what dropping the atomic bomb did but I guess they could
learn about it. But writing about it is pretty gruesome. So is the holocaust.
I think that after everything we could go over [it]…

Here, Alex expressed uncertainty about both the type of cognitive task that his students
could handle and their readiness to handle dark content. He believed that having his
students write about preexisting perspectives could be too difficult for them and it was
best to have them write about their own imagined experience of an event. Writing about
preexisting sides could be challenging because it requires a much deeper knowledgebase
of the context and perspectives. However, Alex’s pedagogical decision was fueled by a
deficit view of his students. Rather than finding ways to scaffold a perspective-taking
lesson to help students master the intellectual challenge, he decided to assign an activity
that required less cognitive rigor. While his pedagogical decision was deficit-based, the
activity he settled on is not without merit. Requiring his students to imagine how they
might have experienced an event is an attempt at simulating *direct experience*, which I outlined in Chapter 4. Alex believed that this form of perspective-taking could still be impactful to his students even if it lacks the rich complexities that could be found when thinking about multiple perspectives.

Throughout the activity, Leslie stated that she made pedagogical decisions because it was “easier” for her because of the long day she had had; yet, she would still make some decisions that were intended to increase the complexity of the lessons for her students. When she began the activity, she looked online for sample lesson plans that could fit the language arts Common Core standard she was given. She stated, “…I looked up a week worth of lesson plans just ‘cause that was easier for me to do language arts just ‘cause that’s what I’m best at. Um, just because it looked the most basic for me to choose from.” She continued:

[Reading the sample lesson aloud] ‘Show students the rainbow fish book and walk through the book with them asking for predictions as you show the images and share the title’—but what’s the purpose of this? See, I’ve only worked with fifth grade aged students so like really basic things like that I feel like I’d have a harder time expanding on. I feel like vocabulary is just the easiest.

Here, Leslie made pedagogical decisions that were complementary to her support of student learning and her priority of convenience. She decided against a sample lesson because she believed it would not provide her with enough material to expand on, which would ultimate be inconvenient for her and would not be enriching for her students.

Leslie continued designing the activities for the six-day unit. For the first day of the unit, she would have her students write a paragraph about their favorite food. As she began outlining the activity for the second day she said:

Leslie: Is it okay if I like repeated a day or is that just like?
Brandon: It’s completely up to you. I want it to be just as natural as—
Leslie: So, I guess I would do the same thing… but then I’ll also have them, um, add examples in their booklets for examples and definitions for each vocabulary word in their booklet… well now they’re writing an essay about their favorite food.

In the above exchange, Leslie started with a pedagogical decision driven by convenience but revised it to make the lesson more complex for her students. These revisions transformed a one-paragraph assignment into a longer essay. This demonstrates that teacher candidates can still recognize the need for complexity in a lesson plan in spite of having a priority for convenience.

While looking at sample science lessons online, Lauren recognized the need to simplify her inquiry-based unit for various reasons.

I feel like with an inquiry project you don’t want to overwhelm with too much information. You don’t want to show them samples because that’s what you want them to produce… Okay, it’s only six days—so, um, that’s a little aggressive for six days. This is like a six-week project… Yeah, I think for something like this you could still do it as six days but it would only be one day a week that you’re doing it because to look at a plant for example, in this example, you’re not going to see a lot of change in a day but in a week you would.

In that quote, Lauren calibrated the science unit based on the following factors: the students she would be teaching, the demand of inquiry learning, and external time constraints. Lauren recognized that the demands of an inquiry project would be high and they would need to be adapted for first-graders. Since she had already decided on doing a unit about plant growth, Lauren decided to enrich the learning experience of her students by having them do the project over the course of six weeks because they would be able to actually see the plant that they are studying grow.

As teacher candidates calibrated the complexity of their lesson plans it was evident that some of their reasoning was problematic. Alex made decisions based on a deficit view of what he believed his students could handle. Leslie made her decisions
based on convenience. However, Lauren’s pedagogical decision to adjust the length of
the lesson to fit a challenging task is in contrast to Alex’s deficit-based decision, which
was the scrapping of a promising activity due to his low expectation of his students’
cognitive capabilities. It is important that TCs reassess the assumptions they have about
their students’ abilities and that they recognize the dangers of operating from a stance of
convenience. Leslie managed to build the complexity of her lesson plan while in haste;
however, this begs the question: What kinds of pedagogical decisions get compromised
in a time crunch? And, to what degree? Given the messiness of teaching and obstacles
that teachers regularly face, it would be important for teacher educators to help TCs
develop efficient and effective go-to strategies that can still attend to enriched social
justice learning experiences despite external constraints.

**Supporting Student Agency**

In this think aloud activity, the teacher candidates demonstrated that they valued
student agency. Typically, this value of agency was evident in the types of assessment the
teacher candidates included or it emerged in the collaborative experiences they designed.
For example, below, Charlotte explained the connection between student choice and
assessment:

Well, first I think choice goes a long way… they have more ownership sort of
over what they’re doing and maybe get them more excited. And also, maybe it…
brings the opportunity to show some of their strengths… maybe some kids really
love to do something online typing something, maybe some other kids like to
draw. Rather than it just being one thing that they have to do, um, which would
make it a little bit harder, not really, but it would kind of make it harder to like to
assess. ‘Cause it’s not like a single template that they have to do. It’s not just a
test that they would just say ‘yes’ or ‘no’ ‘you’re wrong’ or ‘you’re right.’ It’s
more of like the process of how they created the project. That would be like the
assessment sort of thing. I mean yeah, I know that’s kind of like formative but,
um, the final product would be also assessed too.
Alex echoed similar sentiments:

I want to give them multiple resources per topic especially in the very beginning so it’s not just one thing but it’s many things that they can choose from so it’s not very straight forward. Technically, it’ll make my job harder because there’s different things, different criteria but it’ll get them probably more engaged, more into the work…

In both quotes the participants explained that student choice could bring about excitement in the content. Choice allows students to express themselves or their learning in a way that suits them; however, both TCs recognized the difficulty in assessing learning when flexibility has been granted to their students. Based on their pedagogical decisions for this activity they believed that the benefits of that flexibility outweigh the challenges.

In her vocabulary unit, Leslie supported student agency by allowing students to choose their favorite foods to write about and by designing an empowering collaborative activity. For the activity, Leslie said that her students would have to “switch with their neighbor. Their neighbor will identify at least three vocabulary words that could be stronger…their neighbor would probably have an easier time identifying three words that are not as strong.” This pedagogical decision has the potential to empower students because it shows that their intellectual contributions are valued by the instructor. Ultimately, this decision helps to affirm students’ agency.

In these examples the TCs supported student agency in a variety of ways. Charlotte and Alex did so by offering students choices in how to express their understanding or in which resources they could choose from. Leslie allowed her students to intellectually contribute to the class by allowing students to assess their peers. These pedagogical decisions do, to some extent, fall in line with pedagogies that emphasize the need for students to be full epistemic agents in classrooms (Freire, 1970).
Cross-Curricular Integration

Both Lauren and Alex made pedagogical decisions that demonstrated that they valued lesson plans that included cross-curricular integration. As she was reviewing different sample lessons online, Lauren explicitly mentioned that rather than having a lesson that was STEM-based (Science Technology Engineering Mathematics) she wanted “more of a STEAM”-based lesson for her students; that is, it includes the arts. She expanded on her views about arts integration in the quote below.

I’m very interested in a more arts-integrated approach to learning versus doing art and calling it—it’s—Art and arts-integration are two different things… you know a lot of times when you click on stuff like this it’s a ‘Let’s draw a flower’ [activity]. So, I kind of went into this thinking it was more art and when I clicked on it, I was very surprised and excited to see that it is a more—it’s more of an arts approach. The kids are still doing an art project but, in this case, they used a carrot, which is a root, so they understand that. They use the piece of celery that is a stem. Um, so I was more impressed that it wasn’t just a piece of art.

For Lauren, it was important that science lessons not only involve art but that they do so purposefully and with depth. In the sample lesson she reviewed, Lauren saw that valuable knowledge about plants was embedded in the art project, thereby, enriching the learning experience for her students.

Alex’s subject was writing yet he incorporated history lessons into the unit.

Alex: They could be in one of the battalions and they just write a story about something based on fact. So, it’s kind of like a historical fiction. Kind of make their own historical fiction based off a letter—in letter format. Or, I should just make it a story…

Brandon: As opposed to?
Alex: The letter. So they’re just going to write a story instead of the letter. So they could use their imagination more…

Brandon: So the difference would be how long it is?
Alex: Yeah, it’ll probably be easier to write that way too because the letter is like one day. How much information are you actually going to get from one day? A story lets them use their creative mind I guess a little better.
In this exchange, Alex decided to incorporate a historical fiction activity into his writing lesson. He incorporated that form of writing in order to support his students’ creativity and to provide them with a more substantial learning experience.

Both Lauren and Alex included cross-curricular integration in their pedagogical decision making. For Lauren it was important that the arts be included in a science lesson and for Alex, he sought to combine creative writing and history. The world does not fit into neat discrete categories. Instead, it is a mix of intertwining fields, stakeholders, motivations, histories, etc. Cross-curricular integration has the potential to help students see the complexities of real life and reveal social harms. For example, uniting science with sociology could help students uncover the interplay and tensions between society and the sciences. It could also help show that the science that is being done is impacted by the motivation of not only scientists but the general public, politicians, and businesses. When integrating sociology with science a teacher could have a discussion about bias and how that impacts society and scientific practices. Later in this chapter I will show how Alex’s inclusion of his students’ identities in his cross-curricular lesson was a step closer to enacting social justice in the classroom.

**Pedagogical Decision Making and its Alignment with Social Justice Pedagogies**

The pedagogical decision making that the teacher candidates exhibited had the potential to map on to social justice pedagogies that the TCs had been asked to adopt. The TCs decisions showed that they: wanted curricula that was relevant to students’ lives, attended to students’ communication skills, helped students uncover mechanisms, calibrate the complexity of lessons, supported student agency, and included cross-curricular integration. They made these pedagogical decisions with varying levels of
sophistication. For example, one participant had students develop a plan of action to help 
fix an issue in their school’s infrastructure and another participant embedded her 
students’ intellectual contributions and assessments as a feature of a class activity. 
However, many of their decisions fell short of being fully social justice oriented. For 
example, one TC doubted his students’ ability to evaluate multiple perspectives and as a 
response eliminated a promising activity and another participant made many decisions 
based on her convenience. In addition, only one participant made any direct reference to 
students’ social identities. If researchers and teacher educators strive to have TCs adopt 
social justice dispositions than it is important that they help TCs see the connections 
between their beliefs, their decisions and omissions, and their effect on students. 

Tailoring Lesson Plans to Accommodate Student Differences

Many teacher preparation programs encourage their candidates to adopt social 
justice pedagogies into their future classrooms. In order to enact these pedagogies 
teachers must acknowledge student difference and diversity, work toward ameliorating 
the social injustices their students may face, and incorporate their students into the 
curriculum. In order to accomplish this successfully, teachers and teacher candidates 
should not settle for creating lessons that ignore or perpetuate harmful social dynamics. 
They must have a commitment to supporting students who are most harmed by the status 
quo within schools and in broader society. In this study, I sought to uncover the types of 
student differences that teacher candidates acknowledged in their lesson plans, how the 
lesson plans were adjusted to accommodate those differences, and how these 
considerations emerged in each participant’s dataset. In my analysis, I found that TCs 
tailored their lesson plans to support students who were different from their peers due to
their: social identities and perspectives, communication or social skills, access to resources, and knowledge or experience. The TCs’ lesson plans accommodated these students by using one or more of the following pedagogical decisions: incorporating students into the curriculum, including group activities or assigned roles, establishing appropriate lesson introductions, and allowing flexibility in how their students could express themselves. I also found that the candidates’ inclusion of these student differences into their lesson plans were not arbitrary considerations but were in fact commitments that were evidenced across data sources. In the sections below, I use participant vignettes to explain how these commitments emerged. Each section is structured to first show evidence of the student difference commitment during the think aloud and then show evidence of their commitments from the broader study.

**Alex**

In the think aloud activity, Alex tailored his lesson plan to accommodate student social identities, specifically, gender and race/ethnicity. In fact, he was the only participant to overtly factor student social identities and perspectives into the lesson plan. Early in the activity he expressed his desire to create a lesson that would challenge the status quo. Once he decided to create a World War II-themed lesson with a perspective-taking activity, Alex stated, “[doing] letters from different perspectives is an effective way to learn and understand because putting it in someone else’s shoes it’s more relatable,” he added, “[in] our history books it’s only one way but what about the Native American side?” He even developed a list of topics for his students to choose from because “more topics help them keep an open-mind.” Alex’s commitment to social
justice was also evident in his epistemic choices. As he searched for lesson ideas that would include different perspectives, he clicked on a Scholastic website and stated:

Scholastic—it’s a big company. I use it in schools. It’s something I was familiar with so I know it’s not fake—but then again this is kind of… mainstream. Well-known and well-used and sometimes those aren’t the best because they leave out important information. But, I think Scholastic is good too. I’ll keep that in mind.

Here, Alex spontaneously engaged in the sourcing practice of predicting the content that would likely be found in a website based on who created the content. There is a body of literature that speaks to this process and other evaluative processes that occur while participants review multiple documents with different perspectives (Bråten et al., 2011; Goldman et al., 2012; Strømsø et al., 2013). He evaluated the reliability of the website by measuring it against whether the information would likely address perspectives that are important and often underrepresented. For Alex, the popular use of a history knowledge source is a signal of possible testimonial injustice—in other words, the silencing of the knowledge and voices of marginalized groups (Fricker, 2007). He decided to continue his search for a better source.

Alex later found a website that was more fitting of his commitment to students’ social identities, “‘Women of World War II.’ Huh. I think that’s a good one… I think it’s good for girls—even boys to see that women had a key role in—any war really.” He added, “There’s lots of people who don’t like seeing strong women. I don’t know why but I think it’s important for everybody to see that there are strong women and women helped…” Then, as he continued clicking throughout the website, he found a history topic that could appeal to his students’ race and ethnicity:

‘African-American’ That would actually be, I think, really good. Maybe—oh! Tuskegee Airmen. I think that’ll be [fitting for] a huge group in my classroom... there’s twenty kids and sixteen of them are African-American, or Black, or
they’re Haitian. Because, again, you watch a lot of World War II stuff but they
don’t see themselves on the screen…I think that’s a good standard they could try
to reach or it could influence them. It could motivate them.

Alex selected the topics of Women of World War II and the Tuskegee Airmen as two
options for his students to choose from for their perspective-taking activity. He expressed
that it was important for different genders to recognize the contribution of women in wars
and he sought to appeal to his students’ race and ethnicities. His inclusion of these topics
in the curricular content was a manifestation of his commitment to social identities and
by extension social justice. There is further evidence that these considerations were not
decisions made by chance but were instead commitments that had evolved over time.

Alex’s inclusion of students’ identities and perspectives into the curriculum was
demonstrated throughout the semester. Oftentimes, this could be found in his reflections
about course readings. For example, after completing a reading assignment about
diversity and inclusion in schools, Alex posed a question to his classmates. He asked,
“Do you feel that your students in your classroom see themselves or their interests in the
curriculum? If not, can you think of a few ways to fully engage those students?” Another
time, Alex described how some perspectives are not valued in society:

I feel that in today's environment, there is not a lot of debate or civil conversations
from people with different points of views. Hopefully, by implementing whole
class discussions that respects all different mindsets, we can help the students
learn how to work together.

In another instance, he reflected on aspects of an assigned reading he found interesting.
Alex stated, “Another thing that [the author] highlights is to focus on personifying the
lesson for your students. Personifying is a way to learn about your student’s background
and putting your students in certain situations they are learning about.” And, in his
emerging bilinguals course, Alex summarized that emerging bilinguals need, among

other things, “cultural inclusion” and that teachers of bilingual students need “background knowledge on students culture…”

Throughout the semester, Alex’s ideas about including student social identities and perspectives into the curriculum continued to evolve. It emerged in subtle ways such as wanting multiple perspectives to be represented in the classroom to more direct ways such as designing a lesson plan that would specifically include content about women and African-Americans. Alex’s commitment to students’ social identities and perspectives typically emerged after social justice readings and class assignments that called for reflective thinking. This type of thinking was still in effect a few weeks after the close of the semester, when he completed the think aloud activity. This shows that commitments to students’ social identities and perspectives can be fostered and applied in targeted ways. However, it is important for TCs to also reflect on the types of conversations that could be generated when discussing (students’) social identities. For instance, in the WWII-themed lesson plan, it would be beneficial to discuss the often-stated justifications for war or the role of the military industrial complex and its contributions to structural inequity. Furthermore, teacher educators should work to have candidates unpack their assumptions about how to best support students with social identities that have been historically marginalized in order to avoid essentializing students’ experiences or needs.

**Charlotte**

In the think aloud study, Charlotte specifically tailored her lesson plan to accommodate the needs of students who have differences in their communication and social skills. During the think aloud activity, Charlotte included group work to help those
students. At the start of the activity, she indicated that the science inquiry project she was designing would be collaborative and then she expanded on her reasoning:

I think I would want to do it as maybe a group project—for them to like work together, um, as like a team, and to figure out… to problem-solve together. I think that’s—that could help some kids um… be good for… yeah just like talking. And, later she stated, “I like group tasks, um, especially for—I don’t know. I think it’s just like a good way for students to practice communicating and to get those social skills and things like that and for kids that are more shy.”

As I analyzed her data throughout the semester, I found that Charlotte’s consideration for shy students was connected to her personal experience with shyness. Early in the semester the professor of the Urban Education II course had the teacher candidates form a circle and take turns sharing their fears and excitement about entering the profession of teaching. In an online reflection, Charlotte stated:

It was powerful. It was powerful because people were opening up to talk about their personal fears and we were able to relate to each other along the way. I feel like I was apart of something genuine, authentic, and real. Normally, I wouldn’t feel comfortable enough to speak in an activity like this. I’ve always been shy and have hesitated to get vulnerable in a group conversation. However, the classroom culture that has been created by our professor made me feel safe/comfortable enough to speak up and share. This showed the power of an inclusive classroom culture.

Below, in a contrasting scenario, Charlotte noted how shy students sometimes fall through the cracks in school. During her class observations for her action research assignment, Charlotte investigated the problems that arose from a lack of support that teachers received in large classrooms. She stated, “The same couple of high ability students participate and engage, while the rest of the class won’t participate because they are either really lost, or too shy to speak up.” Later she added, “there needs to be more of
an emphasis on student’s voice…” Charlotte’s attention to shy students was also evident in the types of pedagogical strategies that she believed would be useful for her in the future. After completing a reading assignment about helping emerging bilinguals read and listen, Charlotte learned “that it is ok [for students] to interrupt if they didn’t understand something that is spoken. This is important to address in the classroom so students can feel comfortable enough to speak up and ask for clarification…” From another reading, Charlotte saw that “small group work can be less stressful for students to share their ideas to their peers…” Another time, when referencing a video resource that she may use in her profession, Charlotte said she chose that video because the presenter “talks about the importance of setting routines and clear expectations to lower [student] anxiety.” In another example, after assessing a drama-based learning activity presented in her readings, Charlotte stated, “some students might not feel comfortable doing this activity. Shy students might not be willing to participate because they are embarrassed to ‘act’ in front of their peers and [might] disengage in the activity all together.”

Finally, at the conclusion of the semester, Charlotte mentioned that emerging bilinguals need “to feel safe…included in [the] classroom” and they should be “heard.” It is evident that Charlotte had paid particular attention to supporting shy students throughout the study. She reflected on her direct experience with shyness and used that to consider the needs of her students who share similar struggles. Moreover, she was especially alert to strategies that could help them develop their social skills such as utilizing student collaboration, which she demonstrated during the lesson planning activity. A combination of firsthand knowledge and apt assignments and readings helped
to foster Charlotte’s commitment to students who are shy or struggle with communication.

**Lauren**

In the think aloud activity, Lauren was the only participant to accommodate more than one type of student difference into her lesson plan. She tailored her lesson plan to assist the needs of students who have differences in their communication or social skills, differences in resources, and those who have different knowledge or experiences than other students. During the lesson planning activity for this study, Lauren allowed flexibility in her classroom based on the needs of students who have varying levels of communication/social skills and knowledge of the topic. As she decided how her students would be able to express their understanding, she tethered between multi-modal methods of expression and assigned roles as options. Initially, she stated:

They know they can take notes on what they saw but they would also need to draw a picture. So for a child that doesn’t necessarily— can’t write in complete sentences or write really at all…they can still demonstrate to me as their teacher, that they understand what’s happening and the process by drawing it.

Then, she mentioned that assigned roles, such as notetaker, could be helpful for the “one or two that buddy up… [or] shier kids… [or] the kids that are a little bit lost…” Later, when reconsidering her initial choice, Lauren said:

I was kind of thinking more that instead of just having one child be responsible because the levels of writing and spelling and comfort level you know in first grade especially, there’s so many different levels…but you may have kids that could barely write their own names. So, um, I kind of took that thought back because you don’t want them to feel singled out.

In the first example, Lauren decided that one method her students could express their understanding would be drawing. She stated that option would be helpful for students who had difficulty writing. In the second quote, she demonstrated that she favored
assigned roles because it helps students at different levels of communication/social skills and different levels of understanding of the topic. Finally, she decided that eliminating the role of notetaker would resolve issues that may arise because of students’ varying writing abilities.

Lauren’s attention to students’ communication and social skills is evident in other contexts. For example, in a reflection about an emerging bilingual reading, she stated, “I feel that reading and writing are the main focus of the curriculum because these subjects make up the bulk of state testing.” In another example, she focused on students who struggle socially. She said “for the student who is shy, roleplay can be difficult for these children. However, you can combat this by limiting some discussions to smaller groups…” This mirrors her concerns about assigning her students specific roles in her lesson planning activity. Although Lauren did prioritize her students’ communication skills in the lesson plan it was done in a limited way. Her desire to comfort her students outweighed her decision to assign them with writing challenges.

In the think aloud activity, Lauren also accounted for students who have different levels of resources and she connected that to differences in students’ knowledge and experience. As she was designing the lesson plan on plant growth, she used a plant metaphor to explain the advantages and challenges that some students face. She stated, “from a teacher perspective it would be kind of the flourishing student who’s given all the resources they need versus the student who you just kind of push off to the side.” Later, she said that her students would discuss what the class project will look like and “that would be done by making a social emotional learning connection to, um, making sure we have everything we need to grow and be successful so that it created an even
playing field.” For Lauren, she acknowledged that some students do not have access to important resources. She then explained that stating project expectations explicitly would help to remedy differences in resources. Earlier in the semester Lauren recognized the issue of unspoken expectations in schools. In a reading reflection, Lauren stated that she was “heavily focused on the invisible criteria that teachers and schools place on students…” In her metaphor during the think aloud activity, she implied that expectations can often be hidden and that could perpetuate the imbalances in resources that students may face, so to reveal those expectations would be to “even the playing field” for students.

Her attention to unequal resources was impacted by the direct observations she made in her school placement. In an online reflection about culturally relevant and sustaining pedagogies, Lauren unpacks the harmful beliefs and practices that prevented a student in her school placement from having an equal opportunity to succeed:

It was my first semester when I was in a first grade classroom that is haunting me. It was made very clear within the first day of observations, less than 25 days into the school year, that my teacher had already labeled certain students as needy and deficient. Over the course of several weeks, I watched as these deficient labeled students fell further and further… behind. One student in particular, was labeled as [having] a behavioral issue. The teacher shared with me that he was a product of the system, a foster child who had recently been adopted by a married lesbian couple, who themselves had recently split. This child experienced a very broken home life and was then constantly yelled at in the classroom. He craved attention. He is known as ‘problem child’ at the school and is well known by all the teachers... What scares me most about this situation is that even though I am grounded in my beliefs and tried to work with this students and others in the classroom, when you constantly hear something good or bad, over and over, eventually you start to believe it too. Towards the end of my placement, I found myself being a bit less subjective [sic] to this student. Even though I went out of my way to reach him on several occasions, part of me wondered if he could overcome this environment. I wonder if he had a teacher who tried to reach him and find out what really motivates him, if he could beat the odds. It is hard for me to admit these feelings of maintaining oppression for this student, because I know he has so much potential.
Being with this teacher, even for one day a week, I had to fight everything in this classroom environment to try and reach this student in a positive and effective way. And this was only one student in a class of 21; there were so many more being affected this same way, but academically... it’s heartbreaking....

In this excerpt, Lauren revealed how she believed a combination of family issues and deficit views from teachers have stacked the odds of success against a student. Directly observing this unfold had even affected Lauren’s beliefs about the students. Here, the challenges and the negative attention the student experienced is a manifestation of the imbalance of resources that Lauren spoke about in her lesson planning activity. The student had been faced with obstacles that many other students have not experienced.

In her second school placement, she directly observed another manifestation of unequal resources. She was placed in a class with fifth grade students who tested into a gifted program since second grade. She explained that despite being in the gifted program some students are still struggling and “now you have a struggling kid who is held to higher expectations and the stress and anxiety is through the roof. This program has good qualities but is sheltering the students in it and not allowing any other kids the opportunity to join.” For her action research assignment, Lauren investigated if the gifted program was the best way to prepare students for middle school. After making observations, she “discovered that [the root] of the problem actually came down to equal opportunities, or lack their of.” These experiences have impacted the attention that Lauren had paid to students’ access to resources during the think aloud study.

In the lesson planning activity, Lauren also accounted for students who have differences in knowledge or experience. While contemplating the use of assigned roles for her students, Lauren explained that in one of her readings it was said that assigned roles:
Just gets them excited and it gives you a purpose and the kids that don’t maybe get that at home when they come to your class on Wednesdays when we do their science observations—that’s their job. And, maybe that’s the only thing they have to look forward to. Maybe not, maybe they hate the project [laughs] but, um, but at least it makes them feel important for that day.

Later, Lauren explained the importance of having topic introductions that are relatable to students with different levels of knowledge or experience. The first time she spoke of this she stated:

I think our ‘Lesson Topic,’ um, I think I would— pause! I’m struggling with how I would want to introduce it. Do you introduce it as—my initial thought is to introduce it as a social emotional piece and grow it from there. Not all kids in your classroom are going to be familiar or even know that a plant comes from a seed that grows in the ground.

In another situation, she expressed similar concerns:

I think that’s also important as a teacher to remember that you have a lot of different backgrounds and I think by introducing it as a you know, ‘We all need things to grow…you need, um, you know—the basic human needs. You need food. You need water.’ That you kind of start it from that. Kind of introduce it as that and then move on to a plant.

In the two examples above, Lauren indicated that not all students have the same understanding about a given topic and so it is necessary that the teacher introduce a topic in a way that could relate to all students and then the teacher can build from there.

Lauren’s considerations for students who have different levels of knowledge or experience is a commitment that was expressed earlier in the semester. There is evidence that this type of thinking was scaffolded into the teacher preparation curriculum. In a previous lesson planning assignment, TCs were given a lesson plan template that included this prompt: *How will you activate and build on prior knowledge and experiences related to the topic?* This prompt is a scaffold intended to make considering differences in students’ knowledge a habitual practice. Other times, Lauren demonstrated
her commitment without such direct prompting. For example, when discussing how a reading assignment would affect her teaching, Lauren stated, “As a future teacher, I believe it is especially important that we build a strong foundation of this background knowledge so that our students can have more ‘free space’ when to focus on the main points of their reading.” And, in another reading reflection, Lauren noticed that:

We tend to depend heavily on background knowledge and language features (p.9). I also focused on [the section about] getting to know our students, how they think and communicate and what types of social, cultural, knowledge and linguistic capital they bring with them to the classroom.

In these examples, Lauren had expressed a commitment to accommodate her students’ knowledge and experience in order to best tailor a lesson to their needs. Sometimes these commitments emerged through prompts in the curriculum and sometimes they emerged organically. Ultimately, she recognized that not all students have the same starting point and it is necessary to bring their prior knowledge to the forefront at the start of a lesson.

**Leslie**

During the think aloud activity, Leslie made pedagogical decisions to fit the needs of students who struggle with communication skills. Continuing from a quote in the previous section of this chapter, I include further information about why Leslie chose a vocabulary-themed lesson plan. Leslie said the following:

Using words like ‘good,’ ‘bad,’ ‘sad’… aren’t that important or acceptable, I guess. They need to be able to think of other words to describe what they’re trying to get across so really [it’s] just a basic unit but I feel like a lot of kids really do struggle with this because they don’t read big words, I guess. The books that are written for elementary school kids are written at their level—below their level so they can easily understand it. They’re not really challenged, so having them go out learn new words, identify new words, substitute new words, they’re increasing their overall vocabulary knowledge, I guess. So that’s kind of the purpose of it.
Here, Leslie explained that her choice to have students make more sophisticated word choices is because most students are not challenged linguistically in schools. In fact, this consideration came about after she completed a reading assignment. In her reading reflection, Leslie stated that English learners:

Will never be given a chance to work with complex texts because teachers use ‘the easy texts... as a safeguard against failure’ (Fillmore, p. 2). Similar to what I mentioned previously, ELs [English learners] and other minority groups are treated as though they are less intelligent within the classroom. In turn, teachers will give these students simplified texts that do not match the age and academic level of these students because they hold the belief that they will not be able to succeed… Going forward, as a future educator I will utilize complex texts to promote academic language within my classroom. Especially with ELs, it has been proven that they can perform at the same success level, if not higher, to their native English peers. The reason that these students are able to succeed is because they were challenged to read more difficult texts, and think critically about the meaning, structure, etc. regarding the text.

After learning about the obstacles ELs and other groups face, Leslie made a commitment to strengthen her students’ communication skills by challenging them and developing their diction. Not only did she demonstrate this commitment in a reading reflection and during the think aloud activity, she also demonstrated it in a lesson revision assignment for the Teaching Emerging Bilinguals II course. She said, “For my modified lesson plan I added the language objective that: Students will be able to write and orally describe a person versus person conflict while using strong word choices.” In the modified lesson, she also incorporated a language arts website called Flocabulary into the curriculum. This website uses music to develop students’ language skills. Leslie stated, “I currently utilize this website as a resource in my placement classroom. Therefore, I have seen firsthand the benefits of incorporating strategies from this website into my pedagogical toolkit,” later she added, “In my future classroom I intend to utilize this resource by introducing each lesson with the corresponding hip-hop/rap songs, as well as pulling components
from the lesson plans they provide...” Leslie’s commitment to developing students’
language skills emerged from a combination of seeing her cooperating teacher’s language
priorities (as demonstrated in her use of Flocabulary) and from reading assignments that
explained the academic disparities ELs experience. Furthermore, those factors added to
her prior beliefs that some students are treated as if they are less intelligent than others.
As with Alex’s situa-
tion, it is important that teacher candidates reflect on their use of
strategies designed to accommodate communities that are often marginalized. Teacher
candidates’ efforts to account for student differences can easily become a stereotypical
take on who students are and what their interests may be. Teacher educators should help
TCs develop strategies for identifying students’ needs and gaining their input rather than
assuming certain obstacles or interests are ubiquitous.

Conclusions

Collectively, the evidence presented in this chapter shows that teacher candidates
are able to make pedagogical decisions and commitments that could map onto social
justice pedagogies. For example, some participants showed commitments to perspective-
taking, others to providing academic rigor, and others to recognizing differences in
students’ access to resources. However, in many instances the TCs fell short of applying
these commitments to lesson planning. A major shortcoming that was demonstrated in
the lesson planning activity was the minimal attention paid to structural inequity. When it
was mentioned it was done in shallow ways that could essentialize students’ experiences
and identities. In fact, the participant who mentioned incorporating Black historical
figures into the curriculum to reflect his students’ identities is the same participant who
doubted his students’ abilities to handle writing about multiple perspectives. If TCs are to
incorporate their students into the curriculum they must overtly address all aspects of students’ lives including issues that affect their communities and identities. Avoiding open discussions and investigations into these issues perpetuates social injustice. Teacher educators should help TCs to bridge the gap between their social justice aspirations and their pedagogical decision making. It would be helpful for TCs to identify their beliefs and commitments, expand on them, and refine them to assure social justice pedagogical decision making is a habit that could be applied meaningfully even in the face of external pressures.
Chapter 7: Conclusion

Few studies have investigated the development of social justice dispositions using a cognitive lens. This dissertation study, specifically, examined the role of epistemic cognition in the context of an urban teacher preparation program that promoted social justice pedagogies. In it, I explored (a) TCs’ evidential criteria for identifying oppression and the types of knowledge that made the most impact on their beliefs about social issues, (b) TCs’ use of social justice thinking and problematic thinking and how the teacher preparation activity system elicited these patterns, and (c) TCs’ potential application of the dispositions that were promoted in the preparation program. These investigations help to provide a richer understanding of how teacher candidates utilize epistemic thinking and are impacted by the epistemic aims embedded in an activity system focused on social justice. This study contributes to a burgeoning strand of research that seeks to understand how TCs think, how they learn, and how they apply what they have learned into novel contexts. In the remainder of this chapter, I summarize the findings for each investigation and include programmatic and pedagogical recommendations for each set of findings. Then I discuss the research implication of these collective investigations and future avenues of research. Finally, I address the limitations of this study and provide concluding thoughts.

Findings and Practical Implications

In Chapter Four, I sought to understand how teacher candidates evaluated oppressive social situations that they encountered in schools and what kinds of knowledge helped to shape their beliefs about social issues. I found that TCs used a nuanced range of evidential criteria to evaluate oppressive social situations that surfaced
in their clinical placements. Specifically, they identified that evidence of
discrimination/bias could be: (a) overt, (b) subtle, (c) hidden, (d) stereotypes, social
norms, or negative expectations, (e) underrepresentation or differential treatment, and (f)
embedded in power dynamics. While TCs used these criteria in their evaluations, they
sometimes struggled with determining the severity of an oppressive social situation. The
intentionality of the perpetrator and whether they exhibited oppressive actions as opposed
to oppressive discourses were often the mitigating factors. I also found that TCs’ beliefs
about social issues were most impacted by firsthand and secondhand knowledge.
Firsthand knowledge was composed of either direct experience or direct observation of
another person’s experience. Secondhand knowledge was in the form of storytelling, in
which a person recounted their direct experience to the TC. These impactful learning
experiences were found across contexts including work environments, teacher
preparation courses, and clinical field experiences. In addition, instances of direct
observation were often enhanced by readings that were supplied in the teacher
preparation program.

From my findings, I believe that there are steps teacher preparation programs
could take to better support the development of socially just dispositions. Since clinical
field experiences were most often the site where teacher candidates experienced
important changes in their ideas on social issues, it is important that we continue to use
them in teacher preparation programs. However, these experiences need to be well-
guided. This could be done by using readings that show or predict the very scenarios that
teacher candidates will likely experience in their placements, including the harmful
dialogues that come from practitioners and administrators. Emdin’s (2017) For white
folks who teach in the hood.. and the rest of y’all too: Reality pedagogy and urban education, was frequently cited by participants as a reading that spoke to their experiences in the field. Programs could also benefit from readings that include specific strategies for evaluating and responding to oppressive situations (Thurber & DiAngelo, 2018). The use of personal storytelling also has great potential to develop teacher candidates’ ideas about social issues. However, it is important not to overburden particular populations with the responsibility of enlightening others.

As other scholars have noted before (Brennan & Bliss, 1998; Haberman, 1996), recruiting teacher candidates who have direct experiences that mirror the experiences of their students could help TCs meet SJE goals. A robust personal knowledge of the educational contexts may reduce the likelihood of TCs employing the same harmful lens that TCs without those experiences might employ. In addition, clinical field experiences could be further strengthened by including readings and developing activities that require teacher candidates to become attuned to oppression (Sue, 2010). For example, assigning projects in which students specifically look for and unpack microaggressions may be a fruitful activity. This awareness should be applied frequently and should include particular attention to exploring the influence of broader structural inequity and not just institutional and interpersonal problems. Teacher candidates could also benefit from learning about frameworks that could be employed when microaggressions arise (Torres et al., 2019). These frameworks “focus on what was observed (behaviors) and the recipient’s resulting thoughts or feelings (use of “I” statements) to decrease the potential for defensiveness and encourage dialogue” (p. 870). Finally, it is important for teacher candidates to develop confidence in their evaluation of social issues. This confidence can
come about with ongoing candid discussions about what oppression can look like and how it operates. Those discussions and potential actions address key aspects of building a sense of racial literacy among teacher candidates, which, ultimately, helps to support their future students and challenge harmful assumptions TCs may hold (Sealey-Ruiz & Greene, 2015).

Chapter Five was an exploration into the ways teacher candidates used social justice (structural) thinking and problematic (individualistic) thinking and how the teacher preparation program specifically contributed to the production of those ways of thinking. I found that structural analyses of educational problems were found in abundance throughout the data, yet TCs rarely discussed structures beyond the scope of the classroom. When individualistic analyses were made, they most often emerged in the study interventions and not in classroom discussions or assignments. Furthermore, I found individualistic analyses could be divided into three categories: (a) individualistic-structural analyses, (b) fully individualistic analyses, and (c) individualistic analyses with distance. Using a cultural historical activity analysis, I showed how the tools (e.g., assignments and guided discussions) and rules (e.g., to satisfy predetermined learning trajectories and to avoid controversy) of the teacher preparation activity system led to the abundance of structural analyses while simultaneously minimizing opportunities for TCs to express individualistic thinking. In addition, I found that time constraints and cooperating teachers’ sense of powerlessness played an important role in limiting the scope of teacher candidates’ structural thinking to the classroom level. While it is optimistic to see that teacher candidates can express structural thinking in many contexts,
it does lead us to wonder whether individualistic thinking persists but is simply not detected by teacher educators. I found that that was the case.

If teacher preparation programs seek to promote social justice dispositions in their TCs, having TCs produce structural analyses is not enough. Teacher educators must help TCs to unpack the individualistic thinking that they are not expressing. Helping TCs to reveal their problematic thinking is needed because it allows teacher educators to address unspoken concerns and fears that could manifest in troubling ways in the field. In addition, this would help teacher educators determine if and how their TCs’ ideas are evolving. If these changes are made, then teacher educators could better match their epistemic practices to the epistemic aims embedded in a SJE context (Lunn Brownlee et al., 2019).

Promoting social justice dispositions is a challenging feat and it has the potential for high outcomes or disastrous results. In order to develop a more accurate picture of the effectiveness of our instruction, we must learn to include more well-guided opportunities for TCs to reveal and unpack their problematic beliefs. One method of teasing out these beliefs could be by asking TCs to anonymously and candidly explain their causal explanations or proposed solutions to educational problems. It is important to provide TCs with spaces in which these ideas are allowed to surface without the constraints of having to apply structural explanations. Identifying problematic beliefs and having the teacher candidates recognize them is a first step. From there, instruction can be adapted to help TCs’ work through those beliefs while providing them with alternative ideas and ways of analyzing educational problems (i.e., structural analyses).
In Chapter Six, I shifted from the inputs of the teacher preparation program and examined the outputs that were produce via TCs’ practices. I investigated the trends in TCs’ potential pedagogical decision making and whether their decisions aligned with social justice pedagogies. I also examined what student differences that TCs considered when they completed a lesson planning task and why those considerations emerged. First, I found that during the lesson planning activity, TCs made decisions that included: (a) making curricula relevant to students, (b) attending to students’ communication skills, (c) helping students uncover whys and hows, (d) calibrating lesson complexity, (e) supporting student agency, and (f) cross-curricular integration. While these decisions are promising, TCs still made decisions that did not complement core aspects of social justice pedagogies. Specifically, one candidate doubted the abilities of his students, another prioritized convenience, and most TCs did not directly discuss their students’ background and cultures. Second, I found that in lesson planning, TCs attended to students with differences in: (a) background knowledge or experience, (b) communication or social skills, (c) resources or experience, and (d) social identity. Some of these decisions that were made to accommodate these differences included expanding options in how students could express understanding, designing group activities, and including curricular content that reflected student social identities. Teacher candidates’ attention to these specific student differences was present throughout the semester. This serves as evidence that their considerations were, in fact, commitments—some of which were prompted by the curriculum and some were not.

In order to help TCs make pedagogical decisions that strongly map onto social justice pedagogies, it is important that teacher educators help TCs factor specific student
social identities and cultures into their instruction. This territory can be precarious because TCs can run the risk of essentializing the experiences of their students (Gutiérrez & Rogoff, 2003). However, positioning the ways of thinking found in some cultures and communities as just one set of thinking practices in a larger repertoire can help TCs become more nuanced in their incorporation of student social identities in the curriculum.

**Implications for Research**

This dissertation study has explored aspects of epistemic cognition and social justice education that are infrequently researched. I used an epistemic cognition lens to uncover how teacher candidates learn about social issues, engage in social justice thinking, and apply what they learn to their potential pedagogy. Regarding research on EC, this investigation can serve as an example of the ways epistemic cognition can be captured in everyday contexts. Empirical EC research typically uses quantitative Likert-style instruments and analyses to identify and measure the presence of epistemic thinking about scientific and sometimes historical topics. Responding to the call for research to investigate EC across multiple contexts and using multiple analyses (Chinn et al., 2011), I chose to study EC qualitatively and in a complex activity system. My study differs from prior investigations in that I used a combination of open-ended questions, naturally occurring participant discourses about familiar topics, and practical tasks to develop a rich qualitative analysis of EC in a dynamic naturalistic learning environment. Epistemic cognition was identified in the ways that participants; evaluated social evidence, shifted their thinking based on different types of knowledge, produced causal explanations, were influenced by different contexts, and engaged in practical tasks. Developing social justice dispositions does not simply depend on emotional or ethical appeals to the conscience.
The findings from this investigation demonstrate that EC does play an important role in the development of these dispositions. However, further research in this area may reveal the ways that emotions and ethics may interact with epistemic cognition.

The findings from this study support prior research that underscore the importance of context in eliciting epistemic cognition about a given topic. The data showed that TCs’ knowledge about social justice and their social justice enactment could change depending on the contexts. At times, TCs had some facility in identifying oppression in their clinical placements but contextual factors such as, the intentionality of actors in social situations or the modality of the oppression, challenged TCs’ confidence in their evaluations. The different tools and rules of an activity system (in the form of tasks and instructions) would prompt or hide different types of causal analytical thinking about issues within education. The data also showed that candidates’ attempts at incorporating social justice themes into their practice could be influenced by their beliefs in students’ abilities, time constraints, and prior commitments to particular populations. These findings confirm that changes in epistemic thinking is highly contextual and not expressed as a linear process. This also leads to important implications for research on social justice education.

Many researchers in teacher education focus on developing social justice dispositions in TCs. My dissertation findings suggest that researchers could benefit from enriching their ideas about how dispositions can emerge in data and how they can be measured. Specifically, if dispositions are a pattern of cognition and practices then researchers should expect those patterns to change depending on contexts. In my study, these dispositions were not a unitary set of beliefs and practices, instead they were ways
of thinking and practices that shifted based on the circumstances. This may lead researchers to reconceptualize what is meant by disposition and to envision more fine-grained applications of these dispositions. My findings suggest that future studies should include more longitudinal data from numerous contexts (Villegas, 2007).

My analyses also show that teacher candidates had infrequently incorporated social identities into their potential practice. Given that teacher education researchers are often teacher educators themselves, my findings could be an indication that educators are reluctant to address specific social identities and this trickles down to their TCs. There is evidence of this. In a review of research, Goodwin and Darity (2019) found that few articles on social justice education had content about specific social identities. From a final sample of 76 articles, they found that, for example, only four articles specifically had content that addressed race. Most articles had generic references to “diversity” and some had ELL content. Furthermore, they explained that:

If teacher educators hope to prepare teachers who will advocate for all children and are able to interrupt discriminatory and harmful schooling practices, teacher preparation must be an uncomfortable space where new teachers directly confront, learn about and learn to address sensitive and contested issues of race, class, cultural difference, and inequity. (p. 67)

This could lead to investigations that work to address social identity in the pedagogies found in teacher education and K-12 contexts. This would be a very challenging process because in the U.S., discourses about social identities have historically been seen as impolite and could potentially lead to heated emotional exchanges. Despite this obstacle, teacher candidates (and their educators) must come to realize that if they wish to fully embrace social justice pedagogies, they must learn to destigmatize social identity and also recognize that education is inherently political (Apple, 1979). This can bring them
one step closer to understanding that silence about social identity is not a neutral act. Likewise, social justice is not a neutral or default disposition that teachers hold. They must see that they need to make commitments in support of social justice and their students.

**Limitations and Concluding Thoughts**

Despite providing a much-needed qualitative analysis of epistemic cognition in relation to social justice education, this dissertation study has limitations. The study, like many qualitative studies, has a small sample size. It is difficult to make strong claims of generalizability with only 15 participants. The study was also short; I observed the participants for one academic semester (and four weeks during the pilot study). With such a short timeframe the investigation could not provide the thick and rich description that more ethnographic studies may include. Also, due to scheduling conflicts, I was limited in the opportunities I had to investigate participants’ classroom discussions and assignments using follow-up one-on-one interviews. I had to rely more heavily on their in-the-moment discourse or written data. The study could have also benefited from longer more in-depth interviews with the teacher educators and other stakeholders in the activity system, such as program administrators, cooperating teachers, and students in the clinical placement schools. Again, due to time constraints I was limited in the amount of data I could gain access to or collect from stakeholders. Finally, the study was largely exploratory and lacked targeted experimental interventions that could produce more robust causal claims that could explain the trends that I uncovered. However, the benefit of this type of study, is that it can serve as a launching pad for future research that seeks to understand the relationship between epistemic thinking and social justice education.
This dissertation study contributes to a line of research that is still in its infancy. Collectively, my findings show that TCs are thinking in ways that are more nuanced than previously thought but they still face challenges when engaging in social justice thinking. We also see that their epistemic thinking is dependent on the cultural historical contexts within an activity system. I hope that this work can be used to inform theory and help shape future investigations into such important social matters.
References


Han, K. T. (2013). “These things do not ring true to me”: Preservice teacher dispositions to social justice literature in a remote state teacher education program. *The Urban Review, 45*(2), 143-166.


Appendix A: Mini-Action Research Project and Rubric

*Urban Education*

**Mini-Action Research Project**

“The only questions that really matter are the ones you ask yourself.”

- Ursula Le Guin

The more time that we spend in schools, the more questions we have. And while we may never have all of the answers to these questions, taking an inquiry stance to our practice helps us ensure that we always keep learning. One of the goals of the MSU SOE Urban Teacher Education program is to help you become reflective practitioners who reflect and act to continuously improve. This small-scale research paper gives you the opportunity to consider a question that has emerged for you in your clinical placement classroom.

This project has five parts:

1. **Stating a Problem of Practice or a Structural Issue**: Related to urban education and/or social justice education, what is something you see occurring in your placement that confuses or troubles you? Explain the problem, situating in within the current context of urban education and structural inequity.
2. Asking a Research Question: Figure out what you want to explore about this problem within your placement and phrase it in the form of a question.

3. Exploring the Literature: Consider the roots that underlie the problem you are seeing and explore how the literature we have read in this course illuminates the problem.

4. Analyzing Previous Research: Investigate approaches that have been taken previously (in the past and in other schools) to address this issue or a similar issue. What have others done and what have the results been?

5. Designing an Intervention: Think of a small step or a series of steps that might be taken in your placement to gain more information about this problem and begin to implement change. What forms of data could be collected to measure the impact of this intervention?
**Urban Education**

**Rubric: Mini-Action Research Project**

<table>
<thead>
<tr>
<th></th>
<th>2 points</th>
<th>3 points</th>
<th>4 points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement of Issue and Research Question</strong></td>
<td>Context is absent or undeveloped and problem is unclear. Research question is absent or is isolated from context and impossible to effectively explore.</td>
<td>Context and problem are described, but awkwardly or without a sense of purpose. Research question is vague and difficult to effectively explore.</td>
<td>Effectively or masterfully describes context &amp; real-world educational problem. Research question is timely, relevant to class, researchable, and grounded in literature and practice.</td>
</tr>
<tr>
<td><strong>Literature Review and Previous Research Analysis</strong></td>
<td>Theory and research are absent, vague, or disconnected. Less than 3 course readings are referenced. Past interventions are missing or mentioned but not described.</td>
<td>Theory &amp; research are introduced, but awkwardly or without developed connections to the research question. At least 3 course readings are referenced. Past interventions are described.</td>
<td>Effectively or masterfully weaves together theory &amp; research from class in ways that illuminate research question. Relevant literature in addition to 3 or more course readings are referenced appropriately and effectively. Past interventions are described and contextualized.</td>
</tr>
<tr>
<td><strong>Intervention Design and Data Collection</strong></td>
<td>Intervention plan is unclear or does not effectively respond to the research question. Data collection methods are missing, unclear, or inappropriate.</td>
<td>Intervention plan is clear and connected to the research question but is superficial or underdeveloped. There is one clear, appropriate data collection method.</td>
<td>Effectively or masterfully presents intervention plan in ways that are practical, actionable, and grounded in previous literature. There are multiple data collection methods that are clear and appropriate.</td>
</tr>
<tr>
<td><strong>Formatting and Mechanics</strong></td>
<td>Citations are incorrect or incomplete. Minor errors in grammar or spelling.</td>
<td>Citations are present, complete, and in proper format. No obvious errors in spelling or grammar.</td>
<td>XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX</td>
</tr>
</tbody>
</table>

Total:
Appendix B: Action Research Planning Document

<table>
<thead>
<tr>
<th>Problem of Practice/Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Collection Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possible Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

1. Please explain a bit more: What problem do you hope to study?

2. What do you think might be the cause of this problem? Why do you think that?

3. What might be the best ways that this problem could be solved? Give some suggestions and why you think these solutions could work.
Appendix C: Semi-Structured Interview Protocol

1. Briefly, tell me what got you interested in the urban education.

2. Why did you choose MSU SOE?

3. What are some key ideas that you’ve picked up from Urban Education or Teaching Emerging Bilinguals that will guide you in your student teaching?

4. What are common issues that urban schools face that rural and suburban schools do not face?

5. From your perspective, how are these problems caused?

6. What is the best way to solve some of these problems?

7. What are some differences and similarities between what you learn at the SOE and your experience at your field placement?

8. Briefly explain how your experience with school compare to what you are learning at the SOE?

9. Briefly explain how your experience with school compares to your experience at the field placement?

10. From your experience at the SOE and at your placement is there anything that you are skeptical about or concepts that you’re still trying to make sense of?

11. Do you think you will seek to work at an urban school when you are done with the program?

12. Once you finish with the program and you want to learn more about how to teach in an urban school what would you do?
Appendix D: Think Aloud Protocol

“Thank you for meeting with me. Do you mind if I audio record this meeting? For the study I am interested in the ideas that new teachers have about teaching and learning. To give me a better understanding of what those ideas look like in action I would like for you to participate in a lesson planning activity. To create this lesson plan, I will provide you with an Internet accessible laptop that also has Microsoft Word. The laptop has screen capture technology, which means it will record everything that is on the screen while you are using the laptop in addition to audio recording our conversation. You will also be provided with pen and paper in case you would like to take notes while you are doing the activity. I will provide you with up to one hour to complete the lesson planning activity. You may select a topic of your own choice. During the last 5 minutes I will ask you to provide me with an overview of your final product. After the lesson planning activity, I will ask you some follow up questions.

This activity requires you to say everything that comes to your mind as you are creating the lesson plan. That includes your thoughts about what to do next, why you made a particular choice, what you think about a website that you visited, or things that you notice or might remember from the past. During the activity I will regularly ask you questions such as, ‘Why did you choose that?’ ‘What are you thinking now?’ ‘Why do you think that?’ and ‘Can you tell me more about that?’ Sometimes the answers to these questions may seem obvious but for the study it is important for me to hear your answers. Do you have any questions for me before we begin?”
Appendix E: Think Aloud Retrospective Interview

1. What are your thoughts on this activity?
2. What was the hardest part of the activity? Why?
3. What was the easiest part of the activity? Why?
4. Did you find any part of the activity confusing?
5. If you had more time to complete the activity what would you add or do differently? Why?
6. On a scale of 1-4 (4 being very positive) how do you feel about the unit overview you created?
7. On a scale of 1-4 (4 being very positive) how do you feel you with the lesson plan?
8. How much would you say the steps you took to create the lesson plan and the unit overview reflect what you would have done in real life?
9. Is there any previous conversation that we’ve had that that you’d like to expand on?
Appendix F: Glossary

Below I provide definitions for key terms that I use throughout the dissertation.

**Individualistic**: This term derives from neoliberal individualism (Bonilla-Silva, 2003). Individualistic ideas, actions, or policies are those that place blame on those who suffer from inequity and dismiss the influence of structures and group-based power differences in producing or correcting inequity. Regarding my data analyses, I coded verbal data as *Individualistic* when a TC placed blame on students, their families, or communities for their outcomes. This blame often emerged as deficit views about the psychology, behavior, or culture of students, their families, or their communities. This code relates to the locus of responsibility in TCs’ explanations of student outcomes. It is not to be confused with analyses that merely examined individuals—those types of analyses may or may not be individualistic.

**Marginalized people**: I refer to people whose social identities are not typically seen as mainstream and/or have a history of being silenced or disempowered in the U.S. context.

**Social identity**: I use this term to describe a variety of possibly contested, overlapping, evolving, and learned identities (Wortham, 2006) to which a person may feel closely attached. Specifically, I am referring to a spectrum of identities that relate to conceptions of race, ethnicity, gender, language, sexuality, ability, and socio-economic status, and identities that are a combination of those categories.
Urban: The word “urban” is often used across social justice education scholarship; however, few researchers have made strict outlines of what urban means. Irby (2015), has drawn attention to this issue and identified trends in how urban has been conceptualized by researchers. He identified “old school” perspectives as viewing urban as a cultural form (e.g., urban way of life in contrast to suburban or rural ways of life) or as an ecological system (e.g., relating to a densely populated city). “New school” perspectives frame urban as socially constructed and relating to the allocation of resources and as being ideologically influenced (via capitalistic constructions of labor, time, relations, and space, or racialized views of what counts as urban) (pp. 10-16). Guided by the new school perspectives Irby calls for a Marxist geographical critique and theory-building around the concept of urban. He sees urban as spatial and believes that space is practiced by social actors.

In this dissertation, I use urban in two ways. When reporting prior research or other people’s conceptions of urban I am using it in the way that the speaker or author implied—as Irby suggested these definitions are rarely expanded on but they may fall into “old school” or “new school” perspectives. When I use urban as a reflection of my own ideas, that definition most closely fits the new school perspective: I use urban to refer to people and spaces that have been harmed by White supremacist ideologies that marginalize students and communities that do not reflect White U.S.-born middle- and upper-class people, spaces, and cultures.