WEB 2.0 TECHNOLOGIES FOR FACILITATING SOCIAL JUSTICE TEACHER EDUCATION

By

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ABSTRACT

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Many researchers argue that observed social inequalities are often rooted in the structural issues of educational systems. Rather than being opportunities for equality and individual liberty, educational systems reproduce the status quo through disenfranchisement and marginalization of subordinate groups. Social justice education aims to challenge these discriminatory systems through critically conscious instruction. However, how best to prepare socially-just educators remains a problem of practice. This study examines how teacher education courses may play a role in shifting students' dispositions to be more socially-just and deepening their understanding of issues of inequality in education. It further explores how the use of educational technologies – such as blogs wikis, and videos – may enhance the effectiveness of these teacher education courses. Two versions of social justice teacher education course were examined – one section was taught using traditional methods, while the other was taught using technology-enhanced versions of major assignments. Results indicate that both versions of the course were very effective at developing students' knowledge and dispositions related to social justice. The technology-enhanced version of the course, however, did not offer a significant advantage over traditional methods either. These findings have implications not only for future research and practice, but, hopefully, positive social change.

This dissertation is dedicated to the memory of Raimo Hynynen, who built great things.

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Chapter 1 - Introduction

A number of startling disparities confront our educational system, many of them drawn along gender, racial, economic, and sexual orientation lines. The Achievement Gap between students of color and their white peers is well-documented. Previous research has examined how students of color consistently score lower on standardized exams, (Jencks & Phillips, 2011) are less likely to complete high school on time (Verdugo, 2011), and are underrepresented in college and universities (Aud et al., 2011). Many educators point to an "Opportunity Gap" (Carter & Welner, 2013; Diamond, 2013) of inequality in schools that leads to this difference in achievement. Researchers have identified that students of color often have access to less rigorous course loads (Oakes, Joseph, & Muir, 2004), are taught by less experienced and lower-quality teachers (Darling-Hammond, Wei & Johnson, 2009; Ladson-Billings, 2004; Presley, White, & Gong, 2005; Ronfeldt, Loeb & Wyckoff, 2012), and are over-represented in special education settings (Harry & Klingner, 2005; Yoon & Gentry, 2009). The impact of socioeconomic class on student achievement is similarly profound. Students in low-income schools consistently score lower on standardized reading and math assessments (Aud et al., 2011) and are five times more likely to drop out of high school (Chapman, Laird, Ifill, & KewalRamani, 2011).

While not experiencing as consistent a deficit in academic achievement, LGBTQ students often experience a much more negative and hostile environment in schools than do their male and/or heterosexual classmates. For example, 74.1% of LGBTQ students reported being verbally harassed at school in the past year because of their sexual orientation, and 36.2% reported being physically harassed (Kosciw, Greytak, Palmer &

Boesen, 2013). This harassment often is suffered in silence, as 60% of LGBT students who experienced harassment or assault never reported the incident to the school, most often because they did not believe anything would be done to address the situation (Kosciw, Greytak, Bartkiewicz, Boesen & Palmer, 2014). This negative atmosphere can have serious consequences on LGBTQ students. LGBT students are more likely to skip class or an entire day of school because of harassment about their sexual orientation (Kosciw et al., 2014). More seriously, gay and lesbian youth are five times more likely to attempt suicide than heterosexual young people (Hatzenbuehler, 2011).

Girls also face a number of disparities in school. For example, despite girls being the majority in high school biology, chemistry, algebra and pre-calculus courses, male students enroll in and score higher on advance placement tests (Dalton, 2007; National Center for Education Statistics, 2004). Similarly, girls tend to score at or above boys' levels in early elementary standardized measures of assessments, but by the end of high school they have fallen behind boys on high stakes and college enrollment exams such as the SAT and ACT (Corbett, Hill & St. Rose, 2008). These downward trends over time may indicate a systematic bias towards boys in teachers' practice and schools' curriculum that have an additive negative effect on girls' esteem, self-efficacy and academic achievement (Sadker & Zittleman, 2012).

Many teachers and scholars believe these statistics are a byproduct of structural inequality in the American public educational system that privileges some students while oppressing and discriminating against others (Ladson-Billings, 2009; Milner, 2012). For more than two decades, scholars have argued that to confront these symptoms and the fundamental forms of oppression and discrimination at their root, the public educational

system needs teachers with not only the knowledge and skills required to teach their subject matter, but also with a specific set of beliefs, knowledge and skills to address elements of social inequity underlying the achievement gap (Cochran-Smith, 2004; Ladson-Billings, 2009). That is precisely the goal of social justice education and educators. Bell (2007) defines "social justice education" as "both an interdisciplinary framework for analyzing multiple forms of oppression and a set of interactive, experiential pedagogical principles to help learners understand the meaning of social difference and oppression both in the social system and in their personal lives" (p. 2).

Within the broader context of "social justice education," the field of social justice teacher education has developed with the goal of closing opportunity gaps and challenging systems of inequality by educating critically conscious teachers at the pre-service level and through continuing professional development. While university teacher preparation programs often offer classes or entire programs infused with the ideas and goals of social justice education, reviews of the impact of these courses have shown inconsistent or inconclusive results in terms of closing opportunity and achievement gaps.

Multiple reasons for these results have been offered. Some scholars have argued the lack of impact is because the goals, methods and demographics of teacher preparation programs have largely remained unchanged over the past 25 years while classrooms and students' needs have become increasingly diverse (Cochran-Smith, Davis & Fries, 2004). Others have argued that, in many teacher education programs the real issues of inequality, diversity and opportunity are relegated to individual, and sometimes optional, "diversity," or "multicultural" courses that are disconnected from the ideas and curricula of the main preparation courses (Gay, 2010; Howard, 2006; Ladson-Billings, 1995;

Vavrus, 2002; Villegas & Lucas, 2002). A third group of scholars maintain the these teacher preparation courses fail to successfully challenge opportunity and achievement gaps because they teach teachers merely to "celebrate" diversity through superficial activities and recognitions, without teaching teachers about the root causes of social inequality, how schools maintain it, or how to actively teach for social justice (May & Sleeter, 2010; Lee, Menkart & Okazawa-Rey, 2007). In response to these critiques of existing teacher education practices, social justice teacher education seeks to address the systemic educational disparities based on race, social class, gender, sexual orientation and other identity markers.

This study is positioned as part of the field of social justice teacher education and specifically social justice pre-service teacher education. It aims to contribute empirical evidence to underdeveloped areas of this body of knowledge. Multiple deficiencies in the research examining the impact of social justice teacher education courses exist. The first area of concern relates to definitional issues, in that the term “social justice” and what is meant by “social justice education” are vaguely, poorly or inconsistently defined (McDonald, 2008; North, 2006; Zeichner, 2009). Secondly, because courses designed to prepare teachers to teach diverse learners are often disconnected ideologically and epistemologically from the majority of practice and methods courses in teacher preparation programs, research on these courses is usually limited to small-scale, action research examining the issues of social justice education within one specific course (Hollins & Guzman, 2005). Third, much of the research on social justice education has focused on change in pre-service teachers’ attitudes and beliefs, but has not measured

parallel changes in their practice or their students' learning (Cochran-Smith, Davis, & Fries, 2004; Hollins & Guzman, 2005; Lucas & Grinberg, 2008; Weideman, 2002).

In this study, I extended the course-based research approaches to social justice education by examining, in detail, the impact of an alternative method of instruction and assessment that integrated Web 2.0 technologies into a pre-service social justice teacher education course. Given the limitations in the research on the impact of courses designed to prepare teachers for diversity, especially those aligned specifically with a social justice education ideology, this study is positioned to contribute to the literature by empirically measuring changes on two core outcomes of social justice education: pre-service teachers' beliefs, and knowledge.

Studying the role of Web 2.0 technologies in differentiating effects of this course is particularly of interest because of the lack of research on educational technologies in social justice education courses and because of hope that the use of these technologies might lend itself to producing the kind of understanding especially relevant to these types of courses. Past research has examined various technologies in courses designed to build teachers' pedagogical or content knowledge; however few, if any, studies have been conducted on these technologies' "affordances" (Gibson, 1977) for shaping pre-service teachers' social justice beliefs and knowledge. Using's Gibson's definition of affordances as aspects of an environment, object or medium that allow agents to accomplish some task, this study examines if the unique affordances of Web 2.0 technologies may facilitate the kinds of interaction and learning that lead to changes in students' social justice beliefs and knowledge in these kinds of courses. For example, the perspectives presented by authors students read in the course in this study often are "non-mainstream" ideologies

that may differ the beliefs students have internalized in their upbringing. Web 2.0 technologies affordances for peer interaction may provide social support that impacts students' self reflection and dispositional reexamination. Similarly, the issues of identity and social power represent complex domains, with concepts that are best understood as overlapping and particularly sensitive to individual biases and perspectives. This study examines if, for example, because of their unique affordances for interaction and representing points of intersection, these Web 2.0 technologies may impact students social justice knowledge in different ways than more traditional forms of instructional media (see Chapter 3 for further discussion on the affordances of the course, assignments and technologies included in this study).

Purpose

The purpose of this study is to examine the impact of a combination of Web 2.0 technologies for facilitating social justice teacher education. As is common in many other university-based teacher preparation programs, the course sections used in this study represent the single course in each student's teacher certification program that is specifically focused on a critical analysis of inequality in education. This course is a required part of the program and is used as a component in evaluating students' applications to the teacher certification program.

The present study focused on two sections of this course as individual examples of preservice social justice education teacher education courses. While not explicitly stated as being about "social justice," these sections had in common a number of learning goals that aligned with the foundational principles of social justice education as described in previous research (see Literature review for further definitions and goals of social

justice education) that made it an appropriate forum for this study (see Conceptual Framework section below for further discussion of this fit between this study and the course focused on herein).

The two sections of the course in this study shared overarching goals and many instructional components that represent affordances (Gibson, 1977) that may have an impact on students' social justice beliefs and knowledge. Examples of these "common affordances" include the course instructor, course readings, and several assignments (see Chapter 3 for further discussion of affordances for social justice learning common to both sections of the course in this study). The sections did however differ in the media used on three course major assignments. For these assignments, students in one class section used the "traditional" media of individually and/or collaboratively written reflective and analytical papers as forms of assessment. These "traditional" media have their own unique affordances for impacting students' social justice beliefs and knowledge (see Chapter 3 for further discussion of affordances for social justice learning in the "traditional" section of the course in this study). In the second class section, these paper assignments were replaced by Web 2.0 technologies including blogs, wikis and video journals. These media have unique affordances of their own that may lead to changes in students' social justice beliefs and knowledge. (see Chapter 3 for further discussion of affordances for social justice learning in the "high technology" section of the course in this study). By comparing pre- and post-test measurements, this study examines the courses' impact on students' social justice beliefs and social justice knowledge overall. Meanwhile, by quantitatively analyzing any difference in the degree of change in students' scores between sections as well as qualitatively examining students'

experiences using blogs, wikis and video journals in class, this study provided some exploratory evidence about using alternate educational technologies in social justice teacher education courses.

Conceptual Framework of Social Justice Beliefs and Knowledge

This study, as well as the course sections included in it, adopt a critically conscious perspective of education that varies from traditional "multicultural education." In short, whereas traditional multicultural teacher education seeks to celebrate and affirm student diversity as an ideal, "critical multiculturalism" (Sleeter, 2001) examines underlying structural, institutional and individual discrimination that perpetuate inequalities in schools and society. For example, a traditional multicultural teacher education course may encourage teachers to read books by African American authors or discuss the contributions of Martin Luther King, Jr. during Black History Month. On the other hand, a "critical multicultural" teacher education course builds on the perspective of feminist and critical race theory scholars (among others) to have teachers examine issues such as the Eurocentric nature of school curriculums that necessitate events such as "Black History Month" in the first place (see Literature Review for further discussion of multicultural, critical multicultural, and social justice education and teacher education).

Since this study focused on students' beliefs about, and knowledge of, issues related to social justice in education, it is important to clearly frame what is meant by "social justice beliefs" and "social justice knowledge." This framework was based primarily on previous social justice education research that measured beliefs as a construct. For this study, social justice beliefs was conceptualized as containing five discreet, measurable beliefs listed in Table 1. These beliefs were synthesized from two

bodies of research - studies that identified beliefs that present challenges to becoming more critically conscious social justice educators and research on the development and use of the beliefs instrument used in this study.

Table 1

Conceptual Framework of Social Justice Beliefs

Belief	**Description**
B1	Identity markers are largely, if not entirely, socially constructed
B2	Social power, discrimination and privilege is real in society (debunking myth of meritocracy)
B3	Belief in bias (one's own & others)
B4	Schools & teachers have historically, and continue to operate in a way that perpetuates inequality
B5	Schools in all areas & teachers in all subjects should be change agents for students and society by incorporating multicultural curriculum and making issues of inequality explicit in their work

The first body of research has argued that educators, including pre-service and practicing teachers, often hold preexisting ideologies that are problematic to being socially just educators and teachers of culturally and linguistically diverse students. These beliefs are not only contrary to the ideals of social justice, they serve as obstacles in teacher education courses and workshops designed to have participants shift their beliefs to be more critically conscious and/or socially just. These ideological barriers may include internalized racist and sexist beliefs, (Ahlquist, 1991; Cannella, 1998; Scott 1995) viewing non-mainstream cultures from a deficit perspective, (Barrón, 2008; Ford & Grantham, 2003; Schultz, Neyhart & Reck, 1996) adopting a "color-blind" perspective that fails to acknowledge students' racial identity, (Johnson, 2002; Lewis, 2001) seeing

schools and society as being unable to be changed, (Diem, 2009) and specifically seeing their role as teachers to be "non-political;" refusing to bring up issues of inequality in their classrooms (Ladson-Billings, 2001). Working backwards, the opposite of these problematic beliefs described by these researchers were conceptualized as being socially just beliefs for this study. These include believing that teachers and students have their own biases based on past experiences (B3) and that teaching cannot be "non-political;" that teachers can and should make teaching about social justice issues a part of their pedagogy (B5). It should be noted that, in this study's conceptual framework, this last belief represents a belief in what teachers *should* do, not a knowledge or skill set in *how to* teach from this perspective. This knowledge of how to teach for social justice may be an essential part of a critically conscious pedagogy such as Culturally Relevant Pedagogy (Ladson-Billings, 1995), Culturally Responsive Teaching (Gay, 2010), and Anti-Oppressive Teaching, (Kumashiro, 2000) but it is not a goal of the course (the course framework document states, the course is "not a methods course designed to….) and is not an area of pedagogical knowledge measured or assessed in this study (see Conceptual Framework for Social Justice Knowledge in the next section) and is therefore not included here.

The second body of research informing this study's conceptualization of "social justice beliefs" was based on the more recent work of Enterline, Ludlow, Mitescu and Cochran-Smith's (2008) development of the Learning to Teach for Social Justice – Beliefs (LTSJ-B) scale. The survey consists of 12 items such as: "Issues related to racism and inequity should be openly discussed in the classroom" (B5) and "an important part of learning to be a teacher is examining one's own attitudes and beliefs about race, class,

gender, disabilities and sexual orientation" (B3) that were developed from focus groups (and subsequent factor analysis) about the ideal beliefs characteristic of an ideal social justice educator (Ludlow, Enterline & Cochran-Smith, 2008). The LTSJ-B has demonstrated a high degree of reliability and validity and is frequently used as a measure of students' dispositions in social justice education courses, including the one under study here (see Data Sources section for further discussion and Appendix B for full scale).

It is important to note that, while a measured variable of this study, shifting students' dispositions to be more socially just is not the main goal of the course used in this study. According to the guiding framework given to instructors for the course, the primary goal of the course is to develop students' critical thinking skills for analyzing and understanding "how socially constructed categories (e.g., social class, race, gender, sexual orientation, disability, etc.) are used to privilege some individuals and groups and marginalize others" in the specific social institution of public schools. Developing these analytical skills for helping teachers understand "the individual, communal, institutional/societal, and global mechanisms that convert differences into hierarchies of privilege and domination" and "the complex role that schools play in this process" is intended to help future teachers "understand how their pedagogy and instructional strategies affect student achievement and life opportunities."

Based on this study's primary researcher experience teaching the course, while the course framework does not explicitly state changing students' beliefs as a course goal, in the process of achieving its goal of developing students' skills for analyzing systems of educational inequality, students are also likely to experience change in their preexisting beliefs about social power relationships, those relationships' influence on educational

opportunities, how certain groups of students are systematically marginalized, and teachers' role in replicating pre educational inequality. For example, in conversations during office hours, students from previous semesters have described how, because of reading course articles and discussions, they have come to believe that while teachers may think of themselves as "neutral," they actually are often very biased in their beliefs about students (B3 in this study's conceptual framework). Similarly, previous semesters' students have described a change in believing that how hard one works is the main factor in a person's success (i.e., the Myth of Meritocracy) to now believing more in the cultural advantages and disadvantage groups of people face (B2 in this study's conceptual framework). For further discussion on the researcher's experience as an informative tool in qualitative and mixed methods research, see the Role of the Researcher section in the Research Methods chapter).

Further, these dispositional changes sometimes fit with course objectives described in the course framework. For example, the framework lists as a “Guiding Objective” that students should “recognize that teachers, whether intentionally or not, influence the distribution of educational and social opportunity.” This "guiding objective" informs the fourth belief in this study's conceptual framework. Even when dispositional changes students experience in the course are not explicitly connected to the course framework and goals, they often fit with the previous research on "social justice beliefs" cited above and therefore inform the conceptual framework used in this study. (see Appendix A for further details on the course framework and syllabus for the course in this study).

Similarly, based on previous research, “social justice knowledge” is conceptualized to consist of three discrete, measurable knowledge areas, summarized in Table 2.

Table 2

Conceptual Framework of Social Justice Knowledge

Knowledge	**Description**
K1	Critical knowledge of self; personal biases, past experiences as shaping beliefs; knowledge of own beliefs & assumptions; knowledge of own identity markers; knowledge of how these influence their own educational experiences
K2	Critical knowledge of students; knowledge of their cultures and identity markers; how these influence their educational experiences
K3	Critical knowledge of current and historical political and social contexts of education

As with the “social justice beliefs” these three knowledge areas were primarily derived from previous research, specifically Howard's (2006) theoretical framework of “dimensions of knowing that are necessary for [teachers] to be effective in our work for education equity” (p. 126). These three dimensions are: “knowing my self,” “knowing my students,” and “knowing my practice," which Howard refers to as the "Achievement Triangle." These three sides of the "Achievement Triangle" form the basis for the areas of “social justice knowledge” conceptualized for this study.

Several researchers have identified individual areas of knowledge teachers should develop in order to be effective as social justice educators. For example, Helms (1995) and Ladson-Billings (2001) argue that teachers must reexamine their own often advantaged backgrounds and biases, Gay (2002) and Ladson-Billings (1995) suggest that teachers need to learn more about the backgrounds of their students' lived experiences

that shape the diverse perspectives they bring to the classroom. Further, several scholars (Darling-Hammond, 1995; Giroux & McLaren, 1992; Kozol, 1991; Irvine, 1991) claim that teachers need to know more about the socio-political contexts of education that often serve to disadvantage marginalized groups of students.

Howard's Achievement Triangle is one of the few conceptualizations of "knowledge important for social justice education" that combines multiple domains as a conceptualization of a singular "social justice knowledge" for teacher education. This multi-dimensional conceptualization is a significant contribution to the literature because it succinctly combines previous research on areas of knowledge relevant to social justice preservice teacher education. In addition, Howard's framework is useful for studies such as this one seeking to conceptualize and measure "social justice knowledge" as a multidimensional but single variable. This study developed and introduces a new instrument for measuring students' social justice knowledge that contained short essay questions about each of these three sub-domains (see Data Sources in the Research Methods chapter for further details on the development and use of this instrument). This instrument's three questions directly align to the three areas of knowledge in Howard's "Achievement Triangle" and the three dimensions of knowing in this study's conceptual framework.

As with the conceptual framework for "social justice beliefs" used in this study, while not the overall goal of this course, parts of this study's conceptual framework of "social justice knowledge" fit with the instructor's framework for the course in this study. This document explicates the “Guiding Objectives,” “Key Themes” and “Specific Competencies” with which students should leave the course. A number of these

objectives, themes and competencies relate to areas of knowledge about the context of schools in society and issues of social power. For example, the course framework outlines several areas of knowledge to be developed in the course such as “Understanding identity and positionality” and “social, political and historical contexts” of schools. This area of knowledge fit well with the third dimensions of knowing outlined in Howard (2006) and the third area of social justice knowledge in this study's conceptual framework.

Overall, the primary source shaping the conceptual framework of what is meant by “social justice dispositions” and “social justice knowledge” is previous research on social justice beliefs and knowledge, especially the literature informing the instruments used in this study to measure these variables (the LTSJ-B and short essays social justice knowledge assignment). In addition, the conceptual frameworks used for this study align with parts of the course framework and the instructor's previous experience teaching this course to make it an appropriate forum for measuring changes in students' social justice dispositions and knowledge as conceptualized in this study.

Research Questions

This study examined two sections of a preservice social justice teacher education course. One section was taught using "traditional" paper-based assignments for individual- and group-written analysis papers and personal reflection journals. The other section used a series of Web 2.0 technologies for these assignments - blogs for the individually-written analysis paper, a wiki for the group paper, and video journals for the reflection assignment. In addition to the common affordances for social justice learning that both sections of the course contained such as the instructor and several common

assignments (see Chapter 3 for further discussion), the different media used in each section had unique affordances that may have also led to changes in students' social justice dispositions and knowledge.

Table 3

Research questions and data sources

Research Question	**Data Source**	**When Administered**	**Data Analyses**
1.1 - Pre/posttest Social Justice dispositional changes overall	LTSJ-B dispositional survey	Beginning of semester and end of semester	Paired sample T-test of pre- and post-test scores for all students
1.2 – Difference in Social Justice dispositional change between course section	LTSJ-B dispositional survey	Beginning of semester and end of semester	Two-way ANOVA comparing differences in change in pre- and post-test scores between traditional and Web 2.0 technologies sections
2.1 - Pre/posttest change in Social Justice knowledge overall	Short essay assignment	Beginning of semester and end of semester	Paired sample T-test of pre- and post-test scores for all students
2.2 – Difference in Social Justice knowledge change between course section	Short essay assignment	Beginning of semester and end of semester	Two-way ANOVA comparing differences in change on short essay assignment scores between traditional and Web 2.0 technologies sections
3 - Affordances of technologies for impacting Social Justice dispositions and knowledge	Student work on blogs, wikis and video journals	Throughout the semester	Qualitative analysis of student work triangulated by student interviews

Therefore, of interest in this study was the overall change in all students' social justice dispositions and social justice knowledge, which were given to students in both sections as pre- and post- test assignments at the beginning and end of the semester. Change over the course of the semester in these dispositions and knowledge for all students were tested using a paired-sample T-Test of pre- and post-test scores. Additionally, the impact that using the Web 2.0 technologies (due to their unique affordances) instead of paper-based assignments may have had on the dispositions and knowledge of students in this section was examined using a two-way ANOVA as well as a qualitative analysis of a sample of students' work on these assignments. This research design is summarized in Table 3 and elaborated in Chapter 4 (Methodology).

Based on the areas developed in the current bodies of literature, the gaps currently unaddressed, and these research goals, this study aims to answer the following research questions:

Research Question 1: What was the impact of the teacher education course on social justice education on pre-service teachers' social justice dispositions?

RQ 1.1 (quantitative): What was the impact of the teacher education course on social justice education on pre-service teachers' social justice dispositions *regardless of course section*?

RQ1.2 (quantitative): How do these dispositional changes differ for students enrolled in the course section employing Web 2.0 technologies compared to students enrolled in the course section employing traditional methods of instruction?

Research Question 2: What was the impact of the teacher education course on social justice education on pre-service teachers' social justice knowledge?

RQ2.1 (quantitative): What was the impact of the teacher education course on social justice education on pre-service teachers' social justice knowledge *regardless of course section*?

RQ2.2 (quantitative): How do these knowledge changes differ for students enrolled in the course section employing Web 2.0 technologies compared to students enrolled in the course section employing traditional methods of instruction?

Research Question 3 (qualitative): In what ways do the affordances of a collection of Web 2.0 applications influence how students develop their social justice dispositions and knowledge?

Chapter 2 - Literature Review

Two bodies of work inform this study: literature on social justice (and related ideologies) in education and research on applications of Web 2.0 technologies in teacher education.

Social Justice Education

The first body of knowledge relevant to the current research is the field of social justice education. This field has developed over time to rethink and challenge how teachers and students go about their daily work in the classroom.

Definitions. In the United States, schools are commonly seen as needing to provide students not only an education in subject matter content, but in preparation for participation in a democratic society (Labaree, 1989). Some scholars and educators argue that this purpose of schooling goes beyond simple preparation for society, and requires that schools become forces for social change. This change is needed because, from this perspective, modern American society exhibits a number of fundamental inequalities and injustices that affect all people. Further, schools, as powerful socializing institutions embedded in a socio-political context can exercise a great degree of influence over how students learn about themselves, others, society, and their futures in it are in a powerful position to make great strides in reducing those inequalities and injustices. In this way, education becomes "transformative" (Howard, 2006).

A number of labels have been attached to ideologies aimed at reforming education as an agent of social change. Reading across the literature, there are references to, among other terms, "diversity education, "multicultural education," "education for social change," and "social justice education". While these terms have been variously defined

and little consensus exists over their exact definitions, differences and degrees of overlap, an important distinction can be made between ideologies and pedagogies from a "multiculturalism" perspective, and those more closely associated with "social justice education". Multicultural education came to prominence in the late 1970s and early 1980s with seminal work by Banks (1973; 1988), Grant (1977; 1978) and Grant and Sleeter (1986). Multicultural education built of ethnic studies movement of the 1960s and 1970s (Banks, 1993) and was seen as a response to integrationist ideas of the 1930s that saw cultural diversity as a cause of social conflict. For multiculturalist educators, the goal became to recognize and celebrate cultural pluralism in schools, reducing misconceptions and establishing a sense of community (Applebaum, 2009; Olneck, 1990).

In addition to criticism by conservatives ideologically opposed to multiculturalism (see D'Souza, 1991; Schlesinger, 1991) multicultural education has been criticized by those within the field as not being critical enough. To these critics, multicultural education has being enacted in practice only symbolically with "heroes and holidays" as simplified markers of culture and diversity. In other words, some "multicultural" teachers and schools attempt to bring students together and reduce bias, and stereotypes by adding in a few books representing culturally diverse perspectives and designating certain times as celebrations of various groups and members of those groups (e.g., African American History Month) by having students learn about surface-level elements of culture such as food, dance and language. When done this way, multicultural education can reinforce stereotyping through superficial understandings of culture as well

as send the message that learning about culture and diversity is not a central part of the school's curriculum (Applebaum, 2009).

Key multicultural education scholars have responded to this critique. For example, Banks and Banks (1995) responded to "one of the most prevalent misconceptions" about multicultural education - that diversifying curriculum to included diverse cultural, racial and ethnic groups is the main goal of multiculturalists. The authors contend this is only one goal and highlight one of the domains of multicultural education – "equity pedagogy" – they argue goes further beyond diversifying the curriculum. The authors explain that equity pedagogy means critically reexamining assumptions about teaching and learning, and "requires the dismantling of existing school structures that foster inequality" (p. 153). Further, Sleeter (1995) describes critiques that multicultural education as a movement does not focus enough on challenging structural inequalities as "reductionistic," and "disregarding large bodies of scholarship" (p. 90).

Still, even in her 1995 response to critiques of multicultural education, Sleeter, acknowledges that "when multicultural education is framed around learning about 'other' cultures and displacing stereotypes, the larger structural issues are ignored" (p. 91). Sleeter argues that, "multicultural education theories must direct attention more directly to [systems for perpetuating structural inequality such as] White racism, patriarchy, and capitalism" (p. 92). Similarly, Ladson-Billings (2004) argued that multicultural education does not go deep enough in order to significantly remediate educational and social inequality. From this perspective, multiculturalists must incorporate critical perspectives such as those found in feminist studies and critical race theory that examines social inequity as being the by-product of systems of privilege, oppression and discrimination

fundamentally embedded in American society and its educational system. For example, social justice educators such as Sadker and Zittleman (2012) argue that teachers commonly hold low expectations of, or completely ignore, their female students while the standard "neutral" curriculum has a decidedly male-bias, focusing on the contributions and perspectives of male authors, protagonists, scientists and historical figures. Other social justice educators see schools as a primary contributor to societal homophobia and heterosexism, arguing that schools maintain heterosexism by systematically excluding LGBTQ perspectives from the curriculum. This exclusion is so extreme, teachers will even avoiding acknowledging these perspectives even in the most obvious places such as studying the works of Virginia Wolf or James Baldwin (Friend, 1998). This shift has led some scholars and practitioners to adopt a "critical multiculturalism" (May & Sleeter, 2010) perspective that specifically aims to go beyond a simple recognition and celebration of cultural differences and focus on the ways in which those cultural differences become fodder for social systems designed to maintain current arrangements that privilege and advantage some groups at the expense of others (McLaren, 1994; May, 1999).

Similar to the aims of critical multiculturalism are those of social justice education. Bell (2007) defines social justice education as "both an interdisciplinary framework for analyzing multiple forms of oppression and a set of interactive, experiential pedagogical principles to help learners understand the meaning of social difference and oppression both in the social system and in their personal lives" (p. 2). The goal of social justice educators then becomes:

> to enable people to develop the critical analytical tools necessary to understand oppression and their own socialization within oppressive systems, and to develop a sense of agency and capacity to interrupt and charge oppressive patterns and behaviors in themselves and in the institutions and communities of which they are a part (p. 1-2).

Given the plurality of terms for movements seeking to reform current education practices for the betterment of society, and recognizing the distinction between traditional definitions of multicultural education and critical multiculturalism, this study uses the general term "social justice education" as a theoretical perspective and framework. In this way, the current research recognizes that knowledge from variously labeled fields related to cultural diversity and inequality inform the work done explicitly under the heading of "social justice education." Therefore, for the purposes of this literature review and current study, research conducted as "multicultural education," "diversity education," "teaching for social change," and other related fields are included as relevant to the central themes and understandings of "social justice education" research. However, using the term "social justice education" makes the distinction that the focus of this research is not on simply the expressions of culture, but rather the social systems that use those expressions in order to reify existing social hierarchies.

Outcomes of social justice education. A number of intermediate outcomes are have been identified in past scholarly research on social justice education and practitioner-focused materials for social justice educators. This researcher focuses on two of these outcomes: pre-service teachers' beliefs about and their knowledge of issues related to social justice in education.

Dispositions. Foundational to subsequent knowledge or action is a belief that the knowledge is important and that the action is worthwhile (Howard, 2006). In teacher education, these underlying beliefs about knowledge and practice are frequently defined as professional dispositions. As defined by the National Council for Accreditation of Teacher Education (2012), "teacher dispositions" are "professional attitudes, values, and beliefs demonstrated through both verbal and non-verbal behaviors as educators interact with students, families, colleagues, and communities" (n.p.). As with the NCATE definition, the terms "dispositions" is often used synonymously with terms like "attitudes," "values," and "beliefs" in the literature on social justice education. Therefore, while some scholars argue for a clearer distinction to be made between the terms, this literature review includes research that uses the terms "dispositions," "beliefs," "values," "temperaments," and/or "attitudes" that view these internal mental constructs in such a way. Common across the research using different terms is the view that these mental constructs can be the target of social justice education and that the outcome of that education is an observable change, shift or more nuanced development in the learners' "dispositions".

In the field of multicultural teacher education, several authors have argued that, not only can multicultural teacher education courses impact pre-service teachers' dispositions, but that this change is important and necessary aspect of becoming an effective teacher for all children (Taylor & Sobel, 2002). Smith (1998) contends that dispositional change is important for because, for many teachers, their own education was grounded on assimilation ideology, with little exposure to diverse learners. While not the case for all pre-service teachers, those that come from mainstream racial, class, language

and religious cultures can often have never examined their dispositions, even thought they may be barriers to connect with and educating diverse learners (Taylor & Sobel). Examples of these problematic beliefs include internalized racist and sexist beliefs, (Ahlquist, 1991; Cannella, 1998; Scott 1995) viewing non-mainstream cultures from a deficit perspective, (Barrón, 2008; Ford & Grantham, 2003; Schultz, Neyhart & Reck, 1996) and adopting a "color-blind" perspective that fails to acknowledge students' racial identity, (Johnson, 2002; Lewis, 2001).

Multicultural teacher education courses, especially those that adopt a critical and/or social justice stance therefore often challenge teachers' previously held mainstream ideologies. This change toward awareness of structural inequalities in education and that their work as a teacher may reinforce those inequalities, can be difficult to accomplish. (Bhargava, Hawley, Scott, Stein, & Phelps, 2004; Kidd, Sánchez & Thorp, 2004). Taylor and Sobel (2005) describe how conversations that challenge teachers' beliefs are often not only difficult and uncomfortable, but "simply foreign to many educators" (p. 2).

This discomfort may explain why pre-service teachers' attitudes are very resistant to change (Grant & Secada, 1990; Major & Brock, 2003), especially when teachers are asked to confront their own prejudices (Horton & Scott, 2004). Many pre-service teachers, most of whom are White and from advantaged backgrounds (Ladson-Billings, 2001; Nieto & Bode, 2008), are unwilling to change their beliefs about the impact of their own socialization on how they see their students and education, the existence of structural oppression and their potential role in maintaining it (LaDuke, 2009). Instead of changing their beliefs, many of these students are more willing to believe deficit model

explanations for students' lack of academic success (Agee, 1998; Gomez, 1993; Sleeter, 2001).

The process of dispositional change is not a quick one; it "can only be achieved gradually and longitudinally through continuous reflection about theory and practice in conjunction with knowledge about and experience with diverse learners" (Major & Brock, 2003, p. 9). That being said, several studies have assessed changes in dispositions as a possible result of a single teacher education course. This study continues in that tradition and presents empirical evidence of dispositional change. For a further review of previous research on measuring dispositions in multicultural social justice teacher education as a background to the results reported here, see the Measuring dispositions section later in this chapter.

Knowledge. The issue of what knowledge about teaching pre-service teachers should be learning is one of the major criticisms of Social Justice Education. The "knowledge critique" essentially argues that movements such as multicultural education and social justice education within the teacher education field place too much emphasis on liberal progressive and political educational goals such as respecting pupils' cultural identity and raising their self-esteem while at the same time devaluing training on traditional educational goals related to teaching subject matter knowledge and basic skills (Cochran-Smith et al., 2009). However, this critique rests on the assumption that there is a dichotomy between justice and knowledge, that "there is a choice about the goal of teacher education: either knowledge and learning *or* social justice. From the perspective of this dichotomy then, social justice by definition precludes knowledge and learning" (p. 635). This is a false dichotomy; knowledge in social justice education includes

traditional academic subject matter and/or pedagogical knowledge, but also a unique set of additional understandings about society, power, opportunity and the construction of knowledge itself.

One such knowledge for social justice educators to develop is knowledge of the self. Gay and Howard (2000), King (1997) and Ladson-Billings (2009) argue that, in addition to content and pedagogical knowledge, teachers of ethnically diverse students need to be critically aware of their own biases beliefs about culture, ethnicity and achievement, the expectations they have for students from various backgrounds, and an understanding of how those beliefs and expectations may be demonstrated in their teaching practice. Villegas and Lucas (2002) see this as part of a larger "sociocultural consciousness." They believe that most teachers do not have a strong sense of who they are socially and culturally and must engage in "autobiographical exploration, reflection, and critical self-analysis to develop that sense" (p. 22). Bell, Washington, Weinstein and Love (2003) add to this list of teacher self-knowledge an understanding of one's own fears and doubts about teaching ethnically diverse students and about teaching issues of social justice. The issue of self-knowledge is seen as particularly relevant for White teachers who make up the majority of the teaching force but often do not think of themselves in racial terms. For these teachers, self-knowledge must include an understanding of themselves as racial beings (i.e., having a specific set of experiences and perspectives that is unique to Whites, just as other people of other races do) and the ways they have been privileged by their racial identity (Helms, 1995; Howard, 2006; Ladson-Billings, 2001; Lawrence, 1997).

In addition to knowing about themselves, many scholars argue that social justice educators need knowledge of their students' lives, identities and the cultural experiences

that shaped them. This begins with knowing the norms, patterns of interaction and priorities found in the familial and cultural backgrounds of their students (Gay, 2010) as well as familial make up, immigration history, and knowledge of and past experiences with specific topics in the curriculum. Villegas and Lucas further describe ways teachers can learn about students' family histories including home visits, meeting with community members, and, within the classroom setting, posing problems to students and noting how each solves them (p 4). Effective social justice educators also understand the role of race, gender, economic class and other identity markers in shaping the beliefs, attitudes, experiences and knowledge students of different cultural backgrounds bring with themselves into the classroom (Tatum, 2000). Where knowledge of students intersects pedagogy, social justice educators need an additional set of knowledge for incorporating students' culture into their teaching and curriculum in a way that not only celebrates diversity, but empowers students with a rigorous education that is also tailored to their experiences and perspective. This is the basis for pedagogical movements such as Culturally Responsive Teaching (Gay, 2010), Culturally Relevant Pedagogy (Ladson-Billings 1995), and Anti-Oppressive Teaching (Kumashiro, 2000) as well as Milner's (2007) racially aware framework for educational researchers. In order for teachers to make schooling more relevant to, and stimulating for, students of color, teachers need to have a deep knowledge of the historical contributions of people from multiple backgrounds to their subject matter as well as knowledge of how to revise curriculum in order to incorporate those contributions and better represent students' lived experiences and cultural heritage.

A final body of knowledge needed for social justice educators is a knowledge of social power structures that privilege some groups at the expense of others, and the role education plays in that process. Research suggests that effective social justice educators have critical perspectives on the social, historical and political contexts surrounding schools and that they recognize how their work is influenced by, and can influence those contexts. (Giroux, 2001; Irvine, 1991, Sleeter & McLaren, 1995). These educators also know that there are structural inequalities not only in society as a whole, but built into the political, financial and organizational structures of schools that maintain power for dominant groups while continuing to oppress subordinate groups (Darling-Hammond, 1995; Giroux & McLaren, 1992; Kozol, 1991, Irvine, 1991).

In general, in addition to knowing one's own self and multiple aspects of one's students, social justice educators are tasked with coming to understand the politics of education and the ways school perpetuate injustice in an unjust society (Bartolome & Trueba, 2000; Cochran-Smith, 2004). Gay and Howard (2000) extend this idea to argue that social justice educators not only need to have a critical understanding of schools' role in reifying social inequality, but also an in-depth knowledge of the type of education they are practicing that is intended to counter the processes of inequality. They refer to this knowledge as "multicultural foundations of education" and define it as an "awareness of the foundational principles and ideology of multicultural teaching… [including] historical, philosophical, sociological, psychological, political, cultural, and economic analyses and explanations of what multicultural education is and why it is needed" (p. 11). In summary, social justice knowledge for teachers includes a reflective

understanding of one's own self, knowledge of students' lives, identities and experiences, as well as critical understanding of the social and political contexts influencing schools.

History of social justice education. Over almost a century, educational scholars have sought to reform the work of students, teachers and school leaders in order to directly challenge social inequality. In *Democracy and Education* (1916), educator and philosopher John Dewey argued that schools should prepare students to become critical social beings that freely engage with one another to question knowledge in an effort to fight inequality (Ayers, Hunt & Quinn, 1998; Kliebard, 1994; Oakes & Rogers, 2006;). However, while the view of schools as being responsible for creating a more equitable society has been present for at least a century, the push to include this knowledge in education and teacher education received new vigor in the 1960s in concert with the Civil Rights Movement and the desegregation of schools.

One of the major education initiatives of the Civil Rights Movement was to demand school reform so that all students in newly desegregated schools would face less discrimination and acquire more human rights. This included the call to have curriculum more wholly incorporate the experiences, perspectives, cultures and histories of people of different ethnic groups. These calls for curricular reform laid the foundation for the modern vision of "multicultural education" (Banks & Banks, 2010). The first implementations of a more diverse curriculum was rushed and without a thoughtful and careful consideration of how to integrate a broader range of ethnic experiences into the curriculum in a meaningful way (Banks, 2006). This trend has continued today as many models of "multicultural education" in practice focus on helping teachers, students, parents and administrators understand and relate to people different from themselves.

However, just as with early “diversity education” that only superficially integrated a variety of perspectives into the curriculum this modern strain of multicultural education can become “just” a celebration of various peoples’ “heroes and holidays” (Lee, Menkart & Okazawa-Rey, 2007).

Over the past decade, criticism of the shortcomings of multicultural education continued with many teacher education scholars arguing that very little has changed in the ways teachers are prepared in university-based programs (Grant & Secada, 1990; Ladson-Billings, 1995; Zeichner & Hoeft, 1996). Spurred by a more liberal and critical body of theory on teacher education, a “new teacher education” emerged that was committed to a more thorough infusion of multiculturalism and imbued with critical understandings of identity and cultural structures at work in educational settings.

From this view, teacher education is less about preparing teachers for understanding a diversity of perspectives and more focused on empowering teachers and students to interrupt systems of inequality, in other words, to work for “social justice” (Cochran-Smith, 2004, p. 17). This view of teaching as a political act for challenging social injustice is rooted in Freire's (1970) view of teachers as "revolutionary leaders," who, rather than teach to students, work in tandem with their students to practice a "humanizing pedagogy … [that] expresses the consciousness of the students themselves" (26-27). Freire's perspective of teachers as agents of change is an essential element of critical pedagogies such as Culturally Relevant Pedagogy (Ladson-Billings, 1995), Culturally Responsive Teaching (Gay, 2010), and Anti-Oppressive Teaching, (Kumashiro, 2000).

Grant and Sleeter (2010) succinctly outline that social justice teacher education is similar to multicultural education in many curricular and instructional practices, but goes beyond multiculturalism in four ways: Democracy in the form of debates and political discussions are centered in the classroom, students develop their critical consciousness to investigate institutional inequality, students engage in social action to challenge these inequalities, and supportive networks are built between various oppressed groups (pp. 68-69). While definitions of what "social justice" exactly is varies, (see discussion in section on Limitations of prior social justice education research) modern forms of social justice pre-service teacher education can be seen as having their roots in multicultural education, but expanding to adopt a more political, critical and socially active ideology.

Social justice pre-service teacher education. Within the field of social justice education, teachers play a pivotal role, acting as agents of change within and beyond their classrooms. While teacher education courses with some degree of focus on addressing social justice issues are a common feature in university-based teacher preparation programs, these vary widely in the degree to which they critically assess the underlying structural inequalities inherent in educational settings and practices (Zeichner, 2006; Zeichner, 2009). However, some teacher preparation courses (whether designed for specific settings such as urban schools or not) engage in specialized training that is intentional about developing the dispositions, knowledge, and competencies necessary to become not merely diversity-aware "multicultural educators," but effective, committed social justice educators (Carter Andrews & Donaldson, 2009).

Components of social justice teacher education. Programs and courses designed to prepare teachers for culturally diverse classrooms often differ in their

methods for doing so. Previous research has detailed a number of course components designed to impact students' dispositions and the affordances by which such change may happen. For the purposes of setting up the methods and results of this study, this literature review focuses on four components used in this study's course: cross-cultural interactions with people from diverse backgrounds, assignments that focus on a critical reexamination of one's own learning history, personal reflection of one's own beliefs, and ideologically challenging classroom discourse.

Previous research has described the impact of cross-cultural experiences on students' dispositions, especially those related to understanding how one's backgrounds influence their current perspectives (Freire & Macedo, 1987; Gadotti, 1996; Wiseman, 2001). The major affordance these experiences have for social justice learning is giving students the opportunity to perspective take; to learn from first-hand how people from backgrounds different from their own see the world differently. Doing so may lead to students better understanding their own biases and perspectives. For example, Gay (2000) and LaDuke (2009) argue that these kinds of personal experiences are especially impactful for white, middle-class, mono-lingual, predominately female teachers who constitute the vast majority of the teaching workforce, but have had relatively little experience with people from diverse cultural backgrounds. Without these cross-cultural experiences, these teachers often make a "phenomenal absolutism error" (Howard, 2000), mistaking their own beliefs and perspectives as the only reality.

One example of a cross-cultural experiences intended to change students' dispositions is fieldwork where pre-service teachers work with students and/or families in culturally and ethnically diverse school and community settings. (Capella-Santana, 2003;

Milner, 2006). After participating in these experiences, pre-service teachers may better understood students from different backgrounds, their values, and their beliefs, and be more open to teaching culturally relevant pedagogies (Kidd, Sánchez & Thorp, 2004).

Several authors have noted, however, that these kinds of experiences can be problematic if not carefully planned and thoughtfully carried out. In particular, if cross-cultural experiences are not paired with thorough examinations of race and class through concurrent class discussions, these experiences can lead to reinforcement of existing stereotypes about diverse students (Milner, 2006; Sleeter, 2001; Vavrus, 2002, cited in LaDuke, 2009). In this study, students engaged in a field-based service learning assignment that typically gave opportunities for cross cultural interaction. See Chapter 3 for further discussion of the affordances of this course component.

A second common component of social justice teacher education courses is assignments that challenge pre-service teachers to reexamine their own personal histories and how those histories influence their current beliefs. Zeichner (1993) argues that teachers need to identify their own cultural identity before they can understand that of their students. In this way, "self-study" assignments may be the most important component of multicultural teacher development, creating a foundation for pre-service teachers to better understand the students and families they serve (Brown, 2004; Chizhik & Chizhik, 2005; Clark & O'Donnell, 1999). Assignments such as "life history," "cultural history," and "cultural autobiographies" afford dispositional change by facilitating a critical examination of one's own history. Through this self-examination, the influence of lived experiences, family upbringing and an individual's cultural socialization become apparent and can be connected to current beliefs. When that

connection is made, a student is better able to understand their own subjectivity and biases, as well as how others' lived experience influence their beliefs and behaviors (Bhargava, Hawley, Scott, Stein, & Phelps, 2004; Cochran-Smith, 2004; Villegas & Lucas, 2002). In this study, students wrote a two part cultural autobiography at the beginning and the end of the semester. See Chapter 3 for further discussion of the affordances of this course component.

A third frequently used component of social justice teacher education courses is personal written reflections or journals. In these journals, students are often asked to write about their reactions, feelings or impressions of other course components such as cross-cultural experiences or course readings. (Garmon, 1998, McFalls and CobbsRogers, 2001). Similar to self-examination assignments, reflective writing's affordance for social justice learning is in engaging students in a metacognitive understanding of their own bias and cultural assumptions (Obidah, 2000; Villegas & Lucas, 2002). When students are intentionally examining their own ideas and feelings, they become aware of their own subjectivity and better critique their own assumptions as well as those of others (Zeichner, 1996). An additional avenue for supporting reflective writings' affordance for examining one's one beliefs is in how teacher educators respond to their students' journals. By responding directly to students' reflections with constructive feedback, teacher educators can encourage further critical reflection and dispositional change in their students (Ladson-Billings, 1991; Villegase & Lucas; Zeichner). In this study, students created seven reflective journals over the course of the semester about their experiences at their service learning site. See Chapter 3 for further discussion of the affordances of this course component.

Lastly, building on Freire's (1970) idea of "problem posing" instruction, engaging students in honest, respectful discussions has been a fundamental component of social justice teacher education described by a number of researchers. These class discussions can facilitate impacting students' dispositions through multiple affordances including giving reluctant or resistant students opportunities to participate and overcome their resistance (Griffin, 1997), students learning from one another's perspective to understand subjectivity and bias (Nieto, 1998), and building a trusting and respectful community where dispositional reexamination is fostered and encouraged (Griffin, Young, 1998).

While these kinds of discussions can afford changes in students' dispositions, facilitating them in challenging but productive way, can be difficult. For example, teacher educators need to encourage and support students' honesty, even if that honesty creates some conflict and disagreement (Garcia & Guerra, 2004). With out this conflict, the affordance for learning from one another and reexamining one's own beliefs is diminished. On the other hand, the discussions must be carried out with a mutual commitment to respect (Nieto, 1998). Without this commitment, discussions can become defensive and counter-productive, likewise losing the opportunity for dispositional change. In this study, students engaged in daily class discussions designed to encourage challenging one another's ideas and beliefs in a environment of mutual respect. See Chapter 3 for further discussion of the affordances of this course component.

Measuring social justice teacher education outcomes. A fundamental part of any teacher education program is effectively assessing the intended outcomes. This is particularly true now when educators are increasingly required to present evidence of the outcomes of their efforts (e.g., evidence-based interventions and data-driven decision

making). For social justice teacher education courses, outcomes can be measured by the degree to which pre-service teachers change in each of the beliefs about and knowledge related to social justice in education. Previous research had detailed a number of ways to qualitatively and quantitatively measure the impact of social justice teacher education courses. However, for the purposes of setting up the methods and results of this study, this section of the literature review focuses on the type (quantitative) and specific instrument (LTSJ-B) used in this study.

Measuring dispositions. Change in teacher education students' beliefs about teaching for social justice is commonly assessed as an outcome variable of teacher education courses focusing on issues of diversity and social justice in education. Past research using this kind of assessment has employed both qualitative and quantitative data. Based on interviews, focus groups and thematic analysis of student journals and class assignments, several themes of dispositional change have been discussed in previous research. These changes in disposition include pre-service teachers from dominant cultural groups rethinking their prejudices about groups culturally different from their own (Hyland & Noffke, 2005), increasing in a sense of advocacy for historically marginalized students and groups (Athaneses & Oliviera, 2007), and growing awareness that one's own beliefs are biased and uniquely based on individuals' past experiences and identity (Medina, Morrone, & Anderson, 2005).

In addition to describing themes of dispositional changes, recent research has also used qualitative data to outline degrees of change in pre-service teachers' beliefs related to issues of social justice. For example, Burant and Kirby (2002) used qualitative data collected from 26 predominantly white, middle class and female pre-service teacher

education students collected through notes from field observations, interviews and focus groups as well as students' own reflective journals and class assignments. Researchers analyzed changes in subjects' beliefs expressed in these data sources over the course of classroom and field-based learning and present themes that describe degrees of change in their students' beliefs. These degrees of change include *deepening understanding*, *eye-opening and transformational*, *partially miseducative*, and *escaping*. Also measuring dispositional change by degrees is Adams, Bondy & Kuhel (2005). The authors used semi-structured interviews with 13 preservice-teacher education students about their experience working with a culturally diverse student mentoring program over the course of several months. Analysis of these interviews presented themes of the degree of openness to a belief in the systemic nature of educational inequity, ranging from "resistant" to "passion and commitment."

In addition to qualitative reports, a number of quantitative instruments have been developed and used to measure change in participants' beliefs about issues related to social justice in education. One of the most frequently used instruments is the Cultural Diversity Awareness Inventory (CDAI) developed by Henry (1986). According to Henry, the goal of the CDAI is to generally assesses respondents', primarily school personnel, respect and awareness of children from cultures different from their own. Several researchers have used this instrument to identity changes in pre-service teachers' beliefs (see Brown, 2004a; Brown, 2004b; Davis & Turner, 1993; Larke, 1990). However, since, no data on the scale's reliability and validity have been excluded from Henry's original research and subsequent studies, data interpretation and results from research using the CDAI has been ambiguous (Brown, 2004b).

In addition to the CDAI, multiple other scales have been developed to quantitatively measure changes in educators' beliefs about multicultural education, diversity and social justice. Examples of these scales include the Survey of Multicultural Education Concepts (Moore & Reeves-Kazelskis, 1992), the Teacher Belief Inventory (Tabachnick & Zeichner, 1984), and the Cultural Attitude Test (Amodeo & Martin, 1982). Compared to the CDAI, these scales have not been as widely replicated in subsequent research, and when employed, reliability and validity data are very infrequently reported. This lack of data significantly limits the applicability of the scales to and comparability of findings from previous research (Pohan & Aguilar, 2001).

More recently, Ludlow, Enterline & Cochran-Smith (2008) presented an empirically-based, rigorously developed and tested, and replicable measurement scale for measuring pre-service teachers' beliefs related to social justice education. The Learning to Teach for Social Justice-Beliefs scale (LTSJ-B) is based on initial pilot testing with more than 200 students graduating from a teacher preparation program with a specific over-arching emphasis on social justice education. After initial pilot testing, focus groups with undergraduate and graduate students in the program were conducted that led to item revisions and a second round of pilot testing which generated more reliable and consistent scores, along with additional feedback on scale items. After additional revisions, the LTSJ-B is now used as a program entry and exit assessment of teacher education students. Over multiple administrations of the scale as a program entry and program exit survey, the LTSJ-B has demonstrated an average Chronbach's alpha of .80 and .74, respectively, with a Rasch goodness-of-fit analyses that showed consistency between observed and expected item responses.

One of the first studies to employ the LTSJ-B was Enterline, Ludlow, Mitescu and Cochran-Smith (2008). Along with reporting details on the development of the LTSJ-B the authors, Enterline et al. gave the results of two sets of analysis evaluating the impact a teacher education program focused on social justice had on students' dispositions. Enterline et al. measured this by comparing the mean LTSJ-B scores for freshmen students entering the program over the previous three years to seniors exiting the program over the same time period. They also administered the survey to graduates who had exited the program the year previous as a "one year out" assessment of the persistence of the program's effects.

Results of this analysis showed that exiting seniors' mean LTSJ-B scores were significantly higher than those of incoming freshmen, giving evidence that the program over the past three years had been successful at shifting students' dispositions. In the "one year out" analysis, however, scores were note significantly different between the recent graduates and exiting seniors. In fact, the mean score for recent graduates (4.02) was nearly identical to that of exiting seniors (4.04). The researchers interpret this result to mean that the program effects persisted in recent graduates as they maintained their social justice beliefs.

Following up on Enterline et al. (2008), Cochran-Smith, Ludlow, Ell, O'Leary & Enterline (2012) reported the results of three large-scale studies employing the LTSJ-B in three different countries (the United States, New Zealand and Ireland). These studies used the instrument in a similar way as Enterline, et. al. - as an assessment of impacts of entire teacher education programs on students' social justice beliefs by measuring multiple cohorts of teachers entering and exiting the programs over multiple years. Mean scores

for teachers exiting the United States, New Zealand, and Ireland programs (μ=4.06, μ=3.73, μ=3.79 respectively) were significantly different (higher) than mean scores for teachers entering the program (μ=3.38, μ=3.28 and μ=3.35 respectively), but with small effect sizes (d=0.16, d=0.16 and d=0.14). These results provide evidence that each program was successful in shifting students' social justice dispositions, but notably small effect sizes.

Mean scores in this study demonstrated a high degree of variance with standard deviations reading from 3.1 to 4.5 across the three sites. This large variance may be due to the fact that this study used considerably large samples (ranging from 283 to 738 participants) and time between pre- and post-tests (programs were one to four years in duration) and likely contributed to lowering the effect sizes.

In addition to the research done by the research team that developed the LTSJ-B, a number of studies have used the instrument as assessments as assessments of programmatic and course impacts on social justice beliefs. Similar to Enterline et al. (2008), Anastasia and Hewett (2012) studied 4 cohorts of alumni (463) and current freshmen (567) from Jesuit universities to determine the lasting impact these universities' teacher education programs had on student's social justice dispositions. Anastasia and Hewett report that alumni mean scores (μ=4.11) were not significantly different than those of current students (μ=4.20). The researchers interpret the results to mean that students did not change significantly overall in their beliefs over the course of their time in the teacher preparation programs.

Anastasia and Hewett followed these overall findings with a subsequent item-by-item analysis. This analysis showed that alumni were significantly more likely to agree

with individual questions on the LTSJ-B such as, "teachers should teach students to think critically about government positions and actions" and more likely to disagree with reverse-coded items such as, "it's reasonable for teachers to have lower classroom expectations for students who don't speak English as their first language." The researchers interpret this to mean that, while the programs may not have had an overall significant impact in changing students' dispositions, it did influence graduates to be more committed to certain aspects of teaching for social justice.

In a mixed-methods analysis of a sociology of literacy course, Lazar (2012) compared the LTSJ-B scores of 41 teachers who had recently completed the course to 46 teachers who had not taken the course. Lazar did not report overall mean scores for the two teacher groups, choosing instead to compare the groups' scores on each item. On this item-by-item analysis, Lazar found that teachers who had taken the course were significantly more likely to agree with one positively coded items and disagree with three reverse coded item than teachers who did not enroll in the course. While not reporting an overall impact of the course, Lazar interprets the item-by-item results to mean that the course had mixed results in that it may have changed teachers' beliefs about some social justice issues, but not others.

More recently, Evans (2013) compared the pre-test/post-test dispositional changes of three cohorts of teachers enrolled in multiple sections of a social justice mathematics course. Using a paired samples T-test, this study found no significant difference in the overall pre-test/post-test scores in the total sample (n=115). Likewise, pre-test/post-test differences for each cohort were not statistically significant with small effect sizes

(d=0.0, d=0.25, d=0.26). The only significant difference found were when comparing the mean post-test scores between the three cohorts using a one-way ANOVA.

Specifically, a cohort of teachers teaching in high-needs schools were significantly higher in their pre- and post-test LTSJ-B scores than the two other cohorts. As Evans acknowledged, this difference could be due to sampling bias as the teachers in high-needs schools were recruited specifically for teaching in urban schools and may be more social justice minded to begin with (as suggested by their pre-test scores). This groups' pre-test and post-test mean scores were relatively high (μ=3.94 out of 5) and did not change at all (d=0.0) over the course of the semester, which may indicated a ceiling effect on the course's impact. Further, post-test LTSJ-B scores for the other two cohorts of teachers actually decreased (though not significantly so) over the course of the semester. Overall, adding in qualitative evidence, Evans concludes the course had a mixed impact on teachers' social justice beliefs.

Measuring knowledge. While multiple researchers have measured individuals' beliefs about issues related to social justice education, little research has been conducted on individuals' knowledge of issues related to social justice education. Research measuring of social justice beliefs has matured to the point where such dispositions are commonly measured qualitatively and quantitatively. On the other hand, measurement of social justice related knowledge has lagged behind with researchers advocating multiple domains of knowledge important for social justice educators, but very rarely attempting to empirically measure learners' development in those domains. For example, several researchers have argued for educators to grow in their understanding of the social, political and historical contexts of education and the role forms of discrimination such as

racism, (Ladson-Billings, 2001) heterosexism (Friend, 1998) and classism (Knapp & Woolverton, 2003). Other researchers have advocated educators learning more about themselves in terms of their own identity development (Gay & Howard, 2000; Helms, 1995; Howard, 2006; Valli, 1995). Still other researchers point to understanding the identity and experiences of students from different cultural backgrounds as an essential knowledge for social justice educators (Gay, 2010; Lawrence, 1997). Despite these claims for the need for such knowledge development, very little research has specifically incorporated educators' knowledge in these domains. Further, when social justice knowledge has been addressed, it is has been presented in descriptive, rather than empirical, research. Most often, this descriptive research presents themes of preservice teachers developing in their knowledge of social inequality (see McDonald, 2008) and of themselves as racialized beings in relation to their students (Hylad & Noffke, 2005; Medina, Morrone, & Anderson, 2005). To date, there has not been research that attempts to not only describe, but measure and assess change in preservice teachers' knowledge of issues related to social justice. In addition, no quantitative scales have been developed for measuring individuals' social justice related knowledge.

Limitations of prior social justice education research. Research on social justice education teacher preparation courses and programs has indicated a number of areas for concern. First, the literature suffers from an inconsistent or often poorly defined conceptualization of what is meant by "social justice," and "social justice education." This lack of consistency has left the field open to criticism that social justice education is merely about boosting students' self-esteem (Schrag, 1999) sacrifices actual student

learning (Will, 2006) or, worse, is just a form of socially progressive indoctrination by politically liberal faculty members (Crowe, 2008; Leo, 2005).

A second major limitation from the literature on social justice education is that prior research has largely focused on only pre-service teachers' beliefs as an outcome variable and not considered other areas of change, such as knowledge in domains related to social justice. It may be argued that learning to teach for social justice begins with a personal commitment based on dispositions, but an educator's beliefs are a necessary but insufficient precursor to teaching for social justice. Pre-service teachers must develop their knowledge in relevant areas in order to more fully understand the context of their work as well as how to translate their beliefs into practice. Indeed, many authors have made this claim for the necessity of such knowledge (Howard, 2006; Ladson-Billings, 2001; Lawrence, 1997), and a few studies have described themes in educators' social justice knowledge. However, there exists still a paucity of research that actually measures, let alone measures change in, educators' knowledge in domains related to social justice.

Educational Technologies in Pre-Service Teacher Education.

The second body of knowledge relevant to the current research is the field of studies on technologies incorporated into teacher education courses designed to prepare pre-service teacher for their future careers. Examining the literature on educational technology in teacher education, two themes dominate previous research: 1) Preservice-teachers are entering the classroom underprepared to integrate technology in meaningful ways into their daily practice, (Hasselbring, 2001; Smerdon et al., 2000); and, 2) it is incumbent upon teacher preparation programs to model use of technology so that pre-

service teachers will learn how use to incorporate such technologies into their own practice. (Beyerbach, Vannatta & Walsh, 2001; Brownell, 1997; Halpin, 1999; Mullen, 2001)

From these themes, the field of research on educational technology in teacher education has largely focused on one desired outcome variable: preparing teachers to be better uses of instructional technology. In this way, learning with educational technology in teacher education is a means to improve the pedagogical competencies of educators (what Mishra & Koehler, 2006 conceptualize as a specific Technological Pedagogical Content Knowledge). This contrasts with much of the research in the broader field of educational technology that focuses on the possible educational benefits to the learner directly. Based in educational psychology, research on the in-practice use of educational technology frequently argues theoretically and empirically that such technologies may foster the development of cognitive behaviors such as higher order thinking, creativity, problem solving and reasoning among students (Grabe & Grabe, 2001).

Since the purpose of this research is not to assess the effects of educational technologies on pre-service teachers' Technological Pedagogical Content Knowledge (or other conceptualizations of their competency for integrating technology into their lessons) but to explore the possible learning benefits of a set of technologies on pre-service teachers *as learners*, examining the previous research on the educational affordances of these technologies on learners (including, but not limited to pre-service teachers) will be more informative. The research presented here focused on the specific technologies being used in this research and emphasize research on the types of

educational outcomes most salient to the learning objectives of the course (i.e., shifting and developing social justice related beliefs and knowledge).

Research on the educational affordances of Web 2.0 technologies. While some technologies have been developed specifically for educating pre-service teachers and other learners, many existing technologies have also been explored for educational value. These potentially educational technologies include modern computer-based information communication technologies (ICTs), specifically Web 2.0 technologies. In general, the term Web 2.0 refers to World Wide Web-based sites, services, and applications aimed at facilitating user participation and collaboration (Brown & Adler, 2008). Common examples of Web 2.0 sites and services include: Wikis (e.g., Wikipedia, Wookiepedia, and EduTech Wiki), blogs (e.g., Blogger, Wordpress), social networking sites (e.g., Facebook, LinkedIn), and recommender systems (e.g., Digg and Stumbleupon). Building on the belief that media influences learning, (Kozma, 1994) many researchers have argued that because of their emphasis on user participation and collaboration, Web 2.0 technologies are especially suited to learning from a social-constructivist perspective where learners actively create new knowledge through social interaction (Harrison & Barthel, 2009; Jonassen, 1999). This literature review presents research on the educational affordances of three Web 2.0 technologies, focusing on those affordances most closely related to social justice teacher education.

Blogs. A growing body of research has investigated the educational affordances of weblogs for teaching and learning in a variety of grades and subject matters. Researchers have considered a number of affordances, but three specific ones may be especially

useful for shifting student teachers' dispositions toward social justice and building related knowledge are considered here.

First, compared to off-line written text, blogs may enhance writers' self-expression by allowing for multiple modes of self-expression using mixed media including images, audio and video. (Deng & Yuen, 2011) This affordance is particularly important to teaching courses on social justice education. The critically conscious perspectives represented in such classes are often new ways of examining social phenomenon, and students may experience frustration expressing themselves with the courses' novel vocabulary. Giving students multiple media forms for expressing their thoughts may help overcome this frustration.

Second, blogs may aid students' self-reflection, an important component of social justice education courses. Previous research has identified that blogs, as compared to traditional text, may be able to facilitate self-reflection by allowing writers to use hyperlinked text to connect their ideas in one piece of writing to previous written work (Ferdig & Trammell, 2004; Stiler & Philleo, 2003).

Third, blogs allow for timely interaction between the writer and readers, which may be useful between students in social justice education courses as they develop their critically conscious perspectives. While dialogue between writer and audience is possible in many media forms, blogs' time-based arrangement of posts followed by in-line commenting significantly streamlines this interaction and facilitates the possibility for readers' feedback to inform future writing. Deng and Yuen (2011) call this social interaction between writer and readers for cognition and learning "reflective dialogue" and note it includes readers' input to help the writer make connections (which may be

developed in future entries) and group problem solving. In addition to group meaning-making between writer and audience, reader feedback may be used for social-emotional support (Dickey, 2004; Kreijns, Kirschner & Jochems, 2003) such as giving empathy and affirmation. For courses in social justice education where the concepts and perspectives are often contrary to mainstream ideologies students have been raised with, this kind of help in meaning and socio-emotional support may be useful for students developing and adopting such new perspectives.

Video journals. Previous research has touted the benefits of journal writing for reflecting on and improving learning (e.g., Van Maanan, 1990, Schoen, 1987, and Hiemstra, 2001) including for pre-service teachers (Hatton & Smith, 1994; Lee, 2008). However, most research on reflection for pre-service teachers has focused on traditional text journals. Considering the different characteristics of video versus text, student reflections done via these different mediums may be affected by the different affordance of each media type. Previous research on video reflections indicate some affordances that may be particularly useful in meeting the learning goals for social justice education courses. One such affordance is that because video requires less effort in preparing as compared to text, students speaking their reflection may be more likely to simply say more and go into greater detail while speaking a video reflection than when asked to write their reflection. While some of this speech in their reflection may be superfluous details, some will be relevant to the reflection and demonstrate a greater depth of analysis as compared to traditional written reflections. (Heintz, Borsheim, Caughlan & Juzwik, 2010) In terms of keeping a chronological series of reflective journals, another affordance of video for greater depth of reflection is the ability to quickly re-view previous videos.

Similar to writing versus speaking, re-watching as compared to re-reading requires less effort for the student and may encourage them to re-view their previous journals. Reviewing older journal entries may help students make connections between their present and previous experiences, an essential part of reflection. (Lee, 2008) Lastly, while not germane to the issue of reflection composed via video as compared to via text, research on speaking compared to writing indicates speakers may be more likely to craft their reflection in a stream of conscious manner with less self-censoring, which, ultimately may be more honest in representing the speakers' true thoughts and feelings. (Loury, 1994; Marwick & boyd, 2011) Honesty is particularly useful in social justice education courses as the dispositional shifts that are the goals of such courses require students to be honest about their internalized beliefs in order to shift them.

Wikis. Over the past several years, a growing body of research has developed on the use of wikis in educational settings. Several studies have considered affordances of collaborative writing on wikis that may be particularly relevant for use in social justice education courses. One such relevant affordance is wikis' built-in features that simplify collaboration between multiple authors. In the process of creating and editing wiki entries, authors are exposed to the insights and perspectives of authors on the same concept (Chandra & Chalmers, 2010; Reinhold & Abawi, 2006). Reading multiple peoples' perspectives may be especially beneficial for social justice education courses where students are asked to question their own perspectives and re-consider ideologies from alternative perspectives. Even when authors do not differ in their perspectives, facilitating collaboration between multiple people may still be beneficial for students developing their beliefs about social justice education. Collaborative writing on a topic

may build a sense of community with other writers (Farkas, 2007). In courses where students are often "trying on" critically conscious identities and perspectives that differ from those with which they have been raised, reading contributions from peers who are similarly negotiating the new identities may help give social justice education students' socio-emotional support that they are not alone in this ideological re-examination. This sense of camaraderie may help overcome a major obstacle dispositional shifting toward social justice – fear of being alone in this new disposition.

Another essential feature of wikis is the ability to combine contributions from multiple writers so that the resulting knowledge is expanded beyond that which a single author could contribute and shaped by multiple perspectives (Reinhold & Abawi, 2006). This co-construction of knowledge is especially useful for students learning about concepts in ill-structured domains which are best understood by examining multiple representations using multiple lines of analysis (Spiro, Collins, Thota & Feltovich, 2003). Many concepts in the domain of social justice education such as the intersectionality of identity markers within an individual and the overlapping layers of influences during the socialization process are ill-structured, requiring such multi-dimensional analysis for true understanding. Using wikis to co-construct this understanding from multiple contributors representing multiple perspectives may be the most effective way to help students understand the social justice knowledge learning goals in these courses.

Limitations of prior research on Web 2.0 technologies in teacher education. As many researchers have pointed out, while multicultural education and educational technology are both critical components of teacher education programs, the two topics are rarely if ever connected in research or in practice (Damarin, 1998; Sleeter & Tettegah,

2002; Wassell & Crouch, 2008). This gap may exist because the preponderance of research on technology in teacher education views pre-service teachers as *future practitioners* and focused on modeling technology use whereas while multicultural and social justice teacher education often views pre-service teachers as *learners* changing and developing in their beliefs and knowledge specifically related to issues of diversity and equity. Thus, researchers in the field of educational technology's application in teacher preparation have failed to consider the educational affordances for subject matter learning. In the case of social justice teacher education, this subject matter learning exists outside of the pedagogical knowledge and skills for technology use, and the two knowledge domains have largely been disconnected in previous research. Furthermore, the few previous studies that have examined educational technology for subject matter learning in social justice teacher education have largely focused on traditional communication technologies such as videos (Hayes & Groves, 2002), email (Anderson, 1998; Sernak & Wolfe, 1998) and bulletin boards (Brown, 2004a; Ramirez, 2002). Outside of the field of multicultural and social justice teacher education, researchers have been active in theoretically and empirically examining the educational affordances of modern Web 2.0 technologies. However, research on these specific technologies for developing pre-service teachers' social justice knowledge and beliefs is currently lacking.

Synthesis. To summarize, the two major bodies of research informing this study are the fields of educational technologies of Web 2.0 technologies and social justice teacher education. The former field is based in educational psychology, specifically the cognitive process these technologies encourage and allow for learners to engage in. The later field is based in critical theories of sociology, specifically examining social

inequality and how institutions such as teacher education courses can do to challenge them, Bringing the relevant past research from these two fields together, it is possible to

Table 4

Examples of educational affordances supporting socially-justice education

Educational Affordance	**Cognitive Process**	**Relevance to Social-Justice Teacher Education**
Reflection through connecting thoughts via hyperlinks between Blog posts (Ferdig & Trammell, 2004; Stiler & Philleo, 2003) or by re-watching previous video journal entries (Lee, 2008)	Better understanding of interconnectedness of concepts	Better understanding of complex concepts such as intersectionality of identity markers and how these markers influence teachers and students educational experiences
Making connections with input from blog readers (Deng & Yuen, 2011) and wiki con-contributors (Reinhold & Abawi, 2006)	Co-construction of knowledge	Better, more complex understanding of current and historical political and social contexts of education due to increased variety of perspectives presented
Socio-emotional support from blog readers (Kreijns, Kirschner & Jochems, 2003) and wiki co-contributors (Farkas, 2007)	Reduction of anxiety about being ostracized	Nascent critically conscious dispositions are fostered and protected
Video journals facilitate greater depth and length of reflection (Heintz, Borsheim, Caughlan & Juzwik, 2010)	More opportunity for students to think about their beliefs and ideas	Increased chance to self -examine previously held beliefs that work against to social justice and critically reevaluate these beliefs over the course of the semester
Stream of conscious honesty in video journals (Loury, 1994; Marwick & boyd, 2011)	Less self-censoring	Students may be resistant to course ideas and use dishonesty to mask their disagreement; being honest in reflective video journals gives instructor (through feedback) and student (through re-watching) leverage in challenging students' beliefs that work against social justice

see how the specific affordances of blogs, wikis and video journals may create learning situations that would be useful for developing the social justice dispositions and knowledge that serve as both the learning outcomes for the course under study and the questions guiding this research. Table 4 illustrates examples of the synthesis of cognitive processes potentially afforded by educational technologies that are particularly salient to the socially-just learning outcomes of this study.

Chapter 3 - Course, Sections and Students

This study focus on two sections of a social justice teacher education course at a large mid-western university. Students were not aware when they enrolled for the course what the class assignments would be; therefore, participants in this research were effectively randomly assigned to either the traditional section or the section using Web 2.0 technologies.

Common Elements

While the courses differed in the media used for three class assignments, they contained a number of common elements including the instructor, the course structure, and several assessments and assignments. These elements each provided affordances for shifting students' social justice dispositions and deepening their social justice knowledge. Table 5 and Table 6 summarize these common elements and their affordances; a detailed discussion of each subsequently follows.

Table 5

Common course elements and their educational affordances beneficial for social justice teacher education

Common Element	**Educational Affordance(s)**	**Benefit for Social Justice Education**
Instructor	Well-developed PCK for course content	Facilitating SJK conceptual change
Student demographics	Small class size allows more opportunities to participate; Increased familiarity and rapport	Checking SJK; socio-emotional support for dispositional change
	Sophomore-level students are in late adolescent psycho-social development	Open to dispositional reexamination and change
	Gender diversity for breadth of perspectives	More complex conceptual understanding with greater variety of insights
Course structure	Schedule gave sufficient time for in-depth and extended discussions	Time to better understand SJK concepts in full complexity and intersectionality
	Course expectations (per syllabus & for teacher education program) held students accountable for engagement and participation	Students committed and engaged to SJK building
Daily course activities	Pre-reading for concept building and conceptual change	Facilitates class discussions for SJK conceptual change
	Class discussions allow for collaboration for co-construction of knowledge; rapport building	More complex conceptual understanding with greater variety of insights; socio-emotional support for dispositional change
Pre- and post-test assessments	Framing and focusing implicit study's goals	Students committed and engaged to SJK building

Table 6

Common and differentiated assignments and their affordances for social justice teacher education

Common Element	**Educational Affordance(s)**	**Benefit for Social Justice Education**
Common course assignments	Formative exam for catching and re-teaching misconceptions	Checking nascent SJK; facilitates future conceptual building & change
	Cultural autobiography for reflection on past experiences and beliefs and classroom application	Dispositional reexamination and change; build SJK of own and student positionality
	Service learning assignment gave first-hand experience with issues of diversity and/or inequality	Encourage perspective taking and empathy to deepen SJK and shift dispositions
Differentiated course assignments	Media artifact/current event analysis assignment for application of course concepts to novel phenomenon	Conceptual transfer builds more complete understanding of complex SJK concepts
	Identity marker group assignment featured collaboration for co-construction of knowledge;	More complex conceptual understanding with greater variety of insights
	Service learning journals assignment for reflection on experiences observing/working in classroom	Dispositional and conceptual reexamination

Instructor. Both sections of the course were taught by the same instructor (who is also the primary researcher of this study). Applying Shulman's (1986) Pedagogical Content Knowledge framework, the instructor had a number of past experiences that helped make him an effective educator in both sections of the course. By the start of the semester, the

instructor had ten years of experience teaching at the middle school and undergraduate level. This decade of teaching background built his general Pedagogical Knowledge giving him a skill set for leading a classroom, including skills such as facilitating whole and small group discussions, identifying misconceptions in student responses and using formal assessments to inform future instruction that were particularly useful in this course.

The instructor had taught sections of the course in this study three times prior to the semester. He had also taught educational psychology courses infused with social justice themes for an additional three previous semesters. In these courses, the instructor taught many of the concepts and material used in the sections of the course presently under study. In addition to this specific instructional experience, the instructor had four years of experience as a public school teacher in an urban school district. During this time, he had first hand experience reflecting on his dispositions, better understanding his own and his students' positionality, and working within and against systems of inequality in public education. These experiences gave him a high Content area knowledge, which he was able to use in aiding students' understanding of the class concepts and in guiding students through their own dispositional growth.

Taken as a whole, the instructor's past experiences teaching the course in this study and professionally as a social justice educator gave him a thorough understanding of the course concepts and how to effectively communicate them to students. For this course, the instructor had a well-developed Pedagogical Content Knowledge making him an effective instructor for the course and an asset to students' dispositional and knowledge growth. The instructor acted as a common affordance for students in both

sections of the course, using his Pedagogical Content Knowledge to help them make sense of the multifaceted and intersecting concepts in the course. This facilitation may have contributed to students developing a better social justice knowledge of themselves, their students and the contexts of education. Similarly, by facilitating a learning environment where ideas can be challenged respectfully in an open and honest forum, the instructor may have acted as an affordance for students dispositional shift. Bringing together his unique combination of professional experiences, instructional skill set and thorough understanding of the course content, this instructor's practice may have contributed to changes in students' social justice dispositions and knowledge.

Student demographics. The overall student make up was very similar between the sections in multiple ways. Both sections contained 15 sophomore-level students. This is a relatively small number of students; each section allows for up to 25 students to be enrolled. Having a smaller class size may be particularly useful for a course designed to challenge students' pre-conceived beliefs and build their knowledge of complex concepts such as the intersectionality of identity markers and the social construction of race. As compared to larger lecture-based formats, having fewer students may allow each student for more opportunities to participate (less competition) and more opportunities for students to interact peer-to-peer, which are foundational to students building knowledge together. In addition, a small class cohort of students at roughly the same age, especially late-adolescent age, may help in rapport building for dispositional growth. Students at this age in both sections were likely to be at the same stage in the psycho-social development, engaging in similar identity reforming processes. This age is particularly

open to dispositional reexamination, a fundamental component of the social justice teacher education course.

Demographically, the sections were also very similar. The sections had the same gender ratio: 10 women and five men and though the sections varied somewhat in their racial demographics, overall the majority of students in both classes identified as "white" or "Caucasian." Of those that did not, one student in the traditional section and two students in the high technology section identified as African-American and one student in the high technology section was an international student from China. The sections were also almost identical in their makeup of elementary and secondary education students. In the traditional section, 10 students planned to pursue a degree in elementary education, 5 planned to pursue a secondary education degree. In the high-technology section, there were eight elementary education students and seven secondary education students. This mix of genders and future career goals likely gave diversity to the perspectives students brought when contributing their understanding to such course topics as the social construction of gender, gender identity and male privilege, as well as broadening the range of classroom applications when discussing such social justice issues as overrepresentation in special education and examples of "hidden curriculum" in schools. By contrast, both sections were not very racially diverse, likely limiting the breath of personal insight that could be contributed to class discussion on race and racism.

Course Structure. Overall, the two sections of the course were very similar in their structure. The two sections were identical in terms of their overall goals, class format, schedule and position in the students' preservice teacher education program. Both sections of the course used the same syllabus (with the noted differences in the three

assignments the high technology section of the course used Web 2.0 media for). This means that both sections had the same schedule, met the same number of days and length of time, used the same readings and had the same expectations in terms of attendance and participation. It is also important to note that, for these students in both sections, passing this course was a requirement for admission into the university's teacher education program. Meeting for a total of 29 days and using a combination of more than 50 articles as the course text meant that students in both sections had ample opportunity and time to engage with the complex concepts of the course. The course's high expectations in terms of weekly workload and for daily participation were paired with the understanding that success in the course was a prerequisite for moving on with their professional goals. This combination of factors helped ensure that students in both sections were committed, engaged, and accountable to the goals of the course. See Appendix A for course syllabus for further details of course schedule and expectations.

Having a course where the expectations are clearly spelled out and students are motivated to meet them promotes a positive learning environment, regardless of the course's learning goals. This motivation may have been especially useful for a course on social justice as the critical stance of many of the course readings are designed to challenge students' preconceived ideas and beliefs, which could lead students to disengage intellectually with the course content. However, knowing they must perform well in the course in order to continue their professional goals in teacher education added an extra layer of extrinsic motivation for students.

Daily course activities. Perhaps the most important elements of the course, and ones that the two sections shared in common were the day-to-day activities. Before each

class, students in both sections were required to read one or more articles about topics such as how issues of privilege, identity, gender, race, and sexual orientation arise in school settings. In addition to reading, students were required to respond to a set of questions based on the articles, and bring their written responses along with the articles to class. This requirement for active and engaged pre-reading fits with the constructivist approach to concept formation, an approach particularly useful for social justice teacher education courses where the concepts are multidimensional and very interconnected. Students certainly enter the course with pre-existing schema of course concepts such as race and gender. However, the pre-reading and reading response assignments activate that prior knowledge before class begins and establishes the parts of those concepts to be further added to and nuanced during class discussions. In addition, physically having these preparation materials in front of them every day served to prime students' participation in class discussions as well as to hold students accountable to being prepared for that discussion.

The focus of most days for both sections were small and whole group discussions centered on their prior reading, current events, and previous class discussions. Most days, students in both sections sat in a large circle facing one another. During whole group discussions, students interacted directly with one another with the instructor acting as a facilitator to clarify statements, ask prompting questions, and to keep the conversation focused. During small group discussions, students either worked with one or two students near them or they were assigned into specific groups by the instructor. In both small group arrangements, the instructor moved between the groups to serve a similar facilitation role as during whole group discussions. Because of this focus on discussion

and learning from one another's contributions, class participation norms encouraging students to participate and to be respectful of one another's contributions were discussed during the first week of class and reiterated throughout the semester.

Whole group discussions gave students exposure to a broader range of perspectives on class topics while small group interactions gave students opportunities to interact with their peers in a more relaxed manner without the pressure of the entire class' (and instructor's) attention. This mix of whole and small group discussion arrangements was designed to give students the opportunity to build rapport with one another while also allowing for as wide a range of perspectives and insights to be contributed to the discussion. This dual approach was designed with the goals of the social justice teacher education course in mind. The comfort and familiarity between students especially in small group discussions, may have created a sense of communal trust, where students could be honest about their beliefs and ideas. Such openness is important for dispositional reflection and growth. At the same time, an open-floor whole group discussion where all students were expected to contribute gave more opportunities for students to hear from a range of perspectives that may have served to complicate and nuance their knowledge of multifaceted social justice concepts.

Pre- and post-test assessments. Students in both sections took two assessments on the first and last days of class. The first of these assessments was the Learning to Teach for Social Justice - Beliefs (LTSJ-B) scale, a 12-item dispositional survey composed of five point Likert-type questions. Of these 12 items, five are positively phrased (and scored) such as, "Issues related to racism and inequity should be openly discussed in the classroom." and seven item are negatively worded (and reversed scored)

such as, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” (see Appendix B for full scale). The scale was developed by a team of faculty members at Boston College, whose entire teacher preparation program has an explicit focus on social justice, as part of an entry and exit survey to the program in order to compare and measure changes in students’ dispositions (See Data Sources and Measures section for further discussion on the development, validity and current application of this instrument).

The second student assessment, referred to simply as the "short essay assignment" was designed as a measure of students’ social justice knowledge. Because such an instrument did not exist from previous research, a new instrument was created for this study. Researchers have identified multiple areas of knowledge important too being an effective social justice educator (see Literature Review for examples), but Howard (2006) is one of few who have attempted to combine multiple knowledge domains into a holistic conceptual framework for a teacher's "Social justice knowledge." This framework is comprised of three categories: a) Knowledge of the self, including one’s own biases, presumptions and perspectives; b) Knowledge of students, including the culturally-specific experiences, beliefs, traditions and behaviors that students bring with them into the classroom; and c) Knowledge of the social, historical and political contexts that built and still shape the United States’ public educational system. Based on these categories, a set of open-ended, short essay-type questions were given to students in both sections as a pre- and post-test assessment of their social justice knowledge (see Appendix B for question prompts and scoring scale and the Data Sources and Measures section for

further discussion on the development, validity and current application of this instrument).

The specific beliefs and knowledge areas assessed on these instruments was not explicitly stated to students in either section as goals of the course. Nevertheless, taking these assessments may have primed students about the implicit critical stance and expected outcomes of the course. In other words, taking a pre-test about one's beliefs about, for example, the salience of inequality in education may have given students the initial suspicion that these beliefs will be the desired dispositions for the course - a suspicion that was likely reinforced as the course went on. Similarly, the short essay assignment may have framed for students what types of knowledge they would be expected to grow in over the course of the semester. These common pre-test assessments may have facilitated students' social justice dispositional and knowledge growth in a way that showed up in post-test scores by implicitly communicating to students the domains of this study's research questions.

Common class assignments. In addition to the pre- and post-test assessments and daily course activities, the traditional and high-technology sections of the course shared three major assignments: a formative exam given a month into the course, a two-part cultural autobiography essay and an off-site service learning assignment. All three common class assignments provide affordances that may have led to changes in students' social justice dispositions and knowledge.

The formative exam serves an important function in building students' social justice knowledge. Assigned after the first unit where the core concepts of the class are covered, the exam serves as a chance to identify misconceptions students may have in

their understanding of class concepts. These concepts, such as multidimensionality of identity, social construction of normality and forms of privilege and discrimination, are fundamental to students' emergent social justice knowledge. The exam helped the instructor ensure that students had an accurate and relatively detailed conceptual understanding before proceeding further in the class. When and where students demonstrated misconceptions, the instructor gave immediate feedback and/or met with students individually to clarify these concepts. By helping the instructor catch misconceptions in students' understanding early into the course, the formative exam helped ensure that the social justice knowledge formation and conceptual change that would occur over the rest of the semester was built on a solid foundation.

The cultural autobiography assignment occurred in two parts: an initial reflection due three weeks into the semester and a final reflection due at the end of the semester. In their initial paper, students were asked to reflect on their own identity and the ways in which their choice of two social identity markers (such as social class, race, ethnicity, language, ability, gender, and sexual orientation) informed their schooling experiences and development of self. The final autobiography asked students to reevaluate their initial autobiography, deep their initial reflection by applying the terminology and ideas from course readings, and to think forward, explaining how their identity and unique perspectives/biases/experiences may shape their work as a future teacher. Both parts of this assignment are particularly useful for social justice disposition and knowledge change. In terms of dispositional growth, even during the first part of the assignment, requiring students to reflect on their own past experiences and beliefs can lead to them recognizing previously unexamined beliefs about issues such as privilege and social

construction. This ideological reexamination can be deepened and more precise in the second part after the student has gained terminology and the tools for understand how their beliefs have been socially constructed. In order for students' dispositions to shift, they have to first be examined and better understood, and the cultural autobiography provides this opportunity for personal reexamination. The autobiography assignment has similar utility for social justice knowledge growth. The first part of the conceptual framework of social justice knowledge used in this study focuses on a teacher understanding their own positionality - the unique and changing nature of their perspectives and the personal experiences that have formed those perspectives. The second part of the social justice knowledge framework refers to a teacher understanding their students' positionality. These two domains are main subjects of both parts of the cultural autobiography. In this assignment, students are tasked with critically analyzing their own and students' positionality, applying class concepts and using the tools of critical inquiry practiced in class in order to develop and demonstrate their social justice knowledge of these important domains.

Finally, all students in the both sections of the course spent 20 hours over a 10 week period participating in a “service learning” experience at a local school or community center. During these service learning hours, students typically observed teachers, helped individual or small groups of students with schoolwork, and (less frequently) assisted the teacher in preparing and delivering lessons. This outside of class assignment gave students the opportunity to see first hand the concepts from course readings and discussions because these placement sites were selected especially for partnering with this kind of course. For example, some of the placement sites were

located in an urban school district where social class and racial opportunity gaps were often observed. Other placement sites were in more affluent districts, but in special education or multi-lingual classrooms where course students could gain insight to ability and language as identity markers and the educational rights of ability- and linguistically-diverse students. The first hand experience at their service learning sites may have been useful in changing students' social justice dispositions. For example, students may have held pre-existing beliefs that were contrary to the ideals of social justice such as "it is reasonable for teachers to have lower classroom expectations for students who don't speak English as their first language" (item six on the LTSJ-B scale). In such a case, seeing effective instructional accommodations for English Language Learners may lead a student to rethink their preexisting belief. Or, if a student held beliefs that were already more socially just, their experiences may have reinforced these beliefs. In a similar way, these experiences may have also been useful in building students' social justice knowledge. Their time in the classroom may have gave students additional opportunities to critically think about, analyze and apply course concepts. Further, service learning time was, for most students, their first experience in a classroom as something other than a student. From this position, students were able to observe the daily workings of schools, teachers and students from a new perspective. The extended learning opportunities provided by service learning course component may have deepened and enriched students social justice knowledge beyond that which could be achieved through class discussions and reading alone.

Differentiated class assignments. Three assignments in the course were differentiated by section in terms of what medium students used in completing the

assignment (see next section for discussion of the elements and affordances of the mediums unique to each section). However, while these assignments' medium differed between sections, some elements of each assignment remained the same. The affordances of these common elements of the assignment may have led to changes in students' social justice dispositions and knowledge, regardless of the medium used.

First, students in each section completed a critical analysis of a media artifact or current event. Although each section used different media and tools to complete the assignment, regardless of section, this assignment required students to use multiple class concepts of social power and identity markers to critique a current cultural/news event or a media artifact such as a television show or movie. Some students analyzed events/artifacts that have inherent qualities related to social power and/or identity (e.g., anti-immigration legislation) or events/artifacts that are usually seen as being critically "neutral," (e.g., the Harry Potter books). Students may have used the assignment to express their dispositions, but the main goal of the assignment was for students to apply their social justice knowledge in their analysis.

For students in both sections of the course, this assignment's essential task of applying course concepts to a novel phenomenon may have contributed to their social justice knowledge, regardless of which medium they used to express that understanding. Students in both sections engaged in outside-of-class independent reading and small and whole group discussion in class in order to deepen and refine the conceptual knowledge of course topics. Most readings and discussions focused on educational institutions, however this assignment built upon those learning tasks by extending the application of these concepts to phenomenon such as current events and television shows. This

conceptual transfer required students to examine the social justice concepts essential parts, the characteristics of the phenomenon they were examining, and remap those parts to the target. This cognitive process required students to critically analyze and transform their knowledge, which may have lead to a more complete understanding.

Second, students in both sections completed an assignment centered on a critical analysis of a single identity marker. Although each section used different media and tools to complete the assignment, regardless of section, this assignment required students to work in groups to analyze an identity maker (e.g., race, gender, social class) through the lens of four aspects of social power - social construction, privilege, discrimination and intersectionality. Students choose which groups to join based on which identity marker they wanted to write about, and all groups focused on the same set of aspects of social power. Each students was expected to write one or more sections of the assignment and to collaborate with classmates to synthesize, connect and uniformly format their final paper.

For this assignment, students in the traditional section created a single paper for their group while students in the high technology section created a single wiki page. Student collaboration was a central element of the assignment and an element that was common between both sections. Collaborative writing encourages the co-construction of knowledge, a process that could be advantage especially for courses such as the one in this study where the concepts are complex, multifaceted, and open to interpretation from different perspectives. Collaboration in this assignment may have exposed students to, and engaged students with, different perspectives on the same topic. This exposure may lead to students refining their understanding as they conceptually accommodated their

colleagues' perspectives. With this collaborative thinking and writing process, students' social justice knowledge may have become more nuanced and broadened.

Third, in both sections of the course, for six of the 10 weeks students were at their service learning site, they created a brief reflective journal entry describing what they observed and/or participated during their time at the site, as well as reflecting on their experience in terms of class concepts of aspects of social power (e.g., privilege, oppression) and individual identity markers (e.g., race, gender). Students either wrote a two page essay (traditional section) or recorded a five to seven minute video (high technology section) giving their description and analytical reflection of their experiences.

Teachers may use reflection to then make future pedagogical decisions, but in the case of students' service learning journals, reflection is primarily a meaning making process wherein the student sequences interconnected ideas in order to come to a better understanding of an experience. During this process, the student may engage in thinking that could lead to changes in dispositions and/or knowledge. In terms of social justice dispositions, reflecting on what they observed at their service learning site and applying their understanding of course concepts to interpret and analyze those observations may have lead students in both sections to rethink their existing beliefs.

By not only experiencing a classroom setting from a new experience, but trying to make sense of it, students may have thought through how they felt about what they saw, and either reinforced or reconsidered those beliefs. Either way, the process of engaging in and thinking about one's own beliefs may have lead to dispositional change. Similarly, while interpreting their service learning experiences through the lens of class concepts, students may have been activating their social justice knowledge. Applying their

conceptual understanding of issues such as privilege, discrimination and social construction to these new experiences may have deepened, nuanced or even changed students' social justice knowledge.

Overall, the traditional and high-technology sections of the course in this study had many elements in common, each with educational affordances that may have led to changes in students' social justice disposition and knowledge.

Elements Unique to Traditional Course Section

While the two sections of the course shared many elements, they differed in the media used for three class assignments - a critical analysis assignment, a group identity marker assignment and students' semester long service learning journal assignment. For all three assignments, students in the traditional section submitted their work in text/written form. This medium may have provided affordances for shifting students' social justice dispositions and deepening their social justice knowledge. Table 7 below summarizes the affordances of each assignments' medium. A detailed discussion of each subsequently follows.

Representing author's ideas only. First, unlike writing in many Web 2.0 technologies that contain feedback channels for input from readers, traditional papers typically represent the author's own ideas solely. It is not known for this study how students in either section may have collaborated outside of class on written assignments, but in writing a single-author paper, students in the traditional section may have felt more free to focus on developing and representing their own thinking without worrying about how to respond to and/or incorporate the feedback from others. This focus fits with the first domain of social justice knowledge as conceptualized for this study - an examination

of own preexisting ideas. In this study, this affordance may have been evident in the traditional section's critical analysis assignment wherein students applied multiple course concepts as a lens to examine their chosen phenomenon. Writing only from their perspective without needing to incorporate others' feedback may have led to changes in their social justice knowledge in ways that were different from the process of blog writing for students in the high-technology section.

Table 7

Traditional section course elements and their educational affordances for social justice teacher education

Element	**Educational Affordance(s)**	**Benefit for SJTE**
Text/written paper	Author representing only own ideas, without having to incorporate reader feedback	Focused metacognitive examination of own ideas and understanding
	One continuous, self-contained document	Help author see relationships between individual parts and "big picture" of complex SJK concepts
	Closed document, not open for public review	Security in adopting critically conscious dispositions
	Ease of revising before submitting	Revising work can lead to deeper SJK understanding

Continuous, self-contained document. Second, the traditional paper affords a "top-down" conceptual understanding for students working on a single document, as opposed to on Web 2.0 writing that comprises multiple, separate posts. Having all parts of their analysis contained in one document may have helped students see the "big picture" of their thinking. Meanwhile, a holistic, well-developed social justice

knowledge not only includes a broad, all-encompassing understanding of social systems, but also the connectedness of ideas; A deep understanding of social justice concepts such as systems of opportunity and the social construction of identity requires students to be able to see relationships between many individual pieces. This process may be afforded when students are able to look at all parts of their work in one continuous narrative. For example, students submitted (and presumably wrote) their section papers as single documents rather than as separate blog posts hosted across a single web site; Having one document in front of them, where all sections of their analysis were readily accessible, may have helped students make connections between social justice ideas focused on at different points in their papers.

Closed document. Third, the medium of an off-line paper has its own unique affordance that may have changed students' social justice dispositions and knowledge. Unlike writing in various Web 2.0 technologies, an off-line paper is typically not open for public review. This kind of privacy may support the practice of adopting critically conscious perspectives in students' analyses. The perspectives represented in class readings often challenge mainstream ideologies about topics such as racism and privilege, and students may be uncomfortable or anxious at first adopting these perspectives for their own selves. Knowing that their writing is only going to be read by a private audience of their classmates and the instructor, as opposed to posted online for public viewing, may give students a sense of security.

This process may have been evident in the traditional section's identity marker group paper assignment, in which students worked in groups of three to analyze an identity marker (e.g., race, gender, social class) through the lens of four aspects of social

power - social construction, privilege, discrimination and intersectionality - before concluding with a discussion of how teachers might challenge problematic social constructions and forms of inequality related to the group's chosen identity marker. Students in the traditional section produced a single collaboratively-written paper of eight to 10 pages that included references to class readings. It is not known what kind of word processing software students in the traditional section used to create the final document (e.g., a web-based collaborative writing platform like Google Docs or off-line word processors like Microsoft Word), but the final product was a private document only accessible by the students in the group and the instructor. This process of "trying on" critically conscious perspectives may contribute to dispositions' shifting to be more socially just and may encourage students to become more so by reducing discomfort - an affordance specific to this traditional medium and relevant to the study's goals.

Ease of revising. Fourth, whereas reflective video journaling involves recording in one take, traditional written journals afford ease of revision and editing of one's ideas before submitting the document. The traditional format allows students to write an initial draft to represent their knowledge and dispositions and easily revise, and mentally re-engage with, parts of their analysis without having to rewrite the entire document; Conversely, in the corresponding high technology journaling format, a student would likely need to start from the beginning and re-record the entire video if any change were needed for any part of their analysis. Additionally, unlike video journals, written journals can be created in multiple sessions over time. This ease of revision may mean less of a barrier to students' revising and rethinking their analysis. Reviewing and revising their writing is generally seen as an important step in students' writing process, but may be

especially beneficial to students in this course as they reexamine and metacognitively revisit their own thinking. Thinking about and reflecting on one's own beliefs is a key component of dispositional change. Similarly, re-examining and cognitively engaging with their own knowledge may deepen students' understanding of their own ideas. This reflective revision process played a part in the course's service learning journal assignment: As part of their service learning experience, students wrote six journals describing and reflecting on what they observed during their time in the classroom. In their journals, students were asked to apply course concepts as a way of analyzing their experiences. This required students to activate and engage with their developing social justice knowledge, as well as express their opinions as a way to present their social justice dispositions. Written journals were approximately two pages in length and submitted electronically as individual document files on six different weeks over the course of the semester. More so than "one shot" video journals, these written journals facilitate the self-revision and this iterative processes of reflecting, revising and rethinking may have led to changes in traditional section students social justice dispositions and knowledge.

Elements Unique to High Technology Course Section

The two sections of the course in this study shared many elements but differed in others, primarily in the media used for three class assignments - a critical analysis assignment, a group identity marker assignment and students' semester long service learning journal assignment. For these three assignments, students in the high technology section used a collection of Web 2.0 technologies to complete their work. The digital

Table 8

High Technology section course elements and their educational affordances for social justice teacher education

Element	Educational Affordance(s)	Benefit for SJTE
Blog post	Enhanced self-expression via multiple media forms	Demonstrate emerging SJK in multiple ways
	Reflection through connecting thoughts via hyperlinks between posts	Help author see relationships between individual parts and "big picture" of complex SJK concepts
	Making connections with input from readers	More complex conceptual understanding with greater variety of insights
	Socio-emotional support in comments	Support for adopting non-mainstream, critically conscious beliefs
Wiki page	Engaging with authors from different perspectives	Reexamining/Reconsidering own ideas and beliefs
	Socio-emotional support during collaboration	Support for adopting non-mainstream critically conscious beliefs
	Collaboration for co-construction of knowledge	More complex conceptual understanding with greater variety of insights
Reflection Video	Greater length and depth in reflection	Deeper reexamination of own beliefs and understanding
	Easy to re-watch previous video journals	Deeper reexamination by drawing connections between previous and current beliefs and understanding
	Lack of self-censoring (stream of conscious honesty)	Honesty about beliefs supports dispositional shift

medium of blogs, wikis and video journals may have provided affordances for shifting students' social justice dispositions and deepening their social justice knowledge in different ways than the paper medium used in the traditional section. Table 8 summarizes these unique elements and their affordances; a detailed discussion of each subsequently follows.

Blog posts. Blogs as a medium for critical analysis have several affordances that may lead to changes in social justice dispositions and knowledge. First, blogs may give students more modes for self-expression including images, audio and video clips embedded into their blog posts. Having additional modes of self expression and explanation is useful in a social justice teacher education course. Because they often challenge mainstream ideologies, the concepts and perspectives presented in the course are often counter to students' previously held beliefs and ideas. Therefore, when tasked with analyzing phenomena through these perspectives, students may experience frustration expressing themselves with the course's novel vocabulary. Having multiple media forms for expression and explanation may help overcome this frustration and facilitate engaging with social justice dispositions and knowledge.

Second, many concepts presented in the course such as race, gender and social class intersect and inform one another, and therefore are best understood by revisiting and drawing connections between them. Blogs may be able to facilitate this reflection and connection-making by allowing writers to create hypertext links between their written thoughts.

Third, unlike the single-authored written documents in the traditional section, blogs allow writer and readers to communicate, which may be useful to the social justice

knowledge development of students in this kind of courses. The additional perspective and input is beneficial to many kinds of conceptual development, including for complex concepts such as systems of discrimination and social construction of identity markers.

Last, in addition to co-constructing knowledge, blogs' comment channel may be a source of social-emotional support such as empathy, encouragement and affirmation as students express in their writing the kind of non-mainstream, critically conscious perspectives often found in these kinds of courses. This support from readers via their comments is an affordance of blog writing that may have an impact on students' dispositional change.

Students in the "high technology" section of the study engaged in this interactive medium for expression through a written critical analysis of a current event or media artifact. In this analysis, students critiqued these events or artifacts as they applied their knowledge related to social justice. Students' analyses were written over the course of four weeks as a series of eight separate blog posts (the blog includes an additional post reflecting on their thinking over the process of writing a blog). In addition, students in the high technology section were assigned to read and comment on at least two other students' blog post each week. Students' writing in this assignment represents a multi-stage analysis of a single phenomenon wherein students engage with multiple domains of social justice knowledge. With each of these stages written as separate blog posts, it is possible that students may see these ideas as separate, disjointed concepts; the affordance of hyperlinks within a blog post may help to connect the concepts and deepen students' understandings thereof. The assignment also required students to "follow" other students blogs, leaving comments after each post. These comments serve as a feedback channel

authors may use to inform future posts. As students think about, apply, and express these perspectives, having socio-emotional support from their peers may encourage students to internalize them and/or reduce any potential discomfort toward expressing non-mainstream ideologies.

For further discussion of previous research on these affordances of blogs, see the Research on the Educational affordances of Web 2.0 technologies section of the Literature Review chapter.

Figure 1

Sample blog post for media artifact/current event analysis assignment..

Wiki pages. Wikis as a medium contain multiple affordances that may lead to dispositional and knowledge change for students in this study. First, wikis are designed to facilitate collaboration between multiple authors. While working together to create and edit wiki pages, authors are exposed to various different perspectives on the same concept. Reading multiple people's perspectives may be especially beneficial for social justice education courses where students are asked to question their own perspectives and re-consider ideologies from alternative perspectives.

Second, the collaborative affordances of wikis may provide socio-emotional support for students as they develop their social justice dispositions. In this kind of course, the critically conscious perspectives students are writing from may differ from those with which they have been raised and/or currently hold. As students shift in their dispositions, reading contributions and collaborating with peers who are similarly negotiating these new identities may help give social justice education students socio-emotional support through reassurance that they are not alone in this ideological re-examination. Feelings of isolation may be an obstacle to shifting dispositions to be more socially just, and the collaborative elements of wikis may help overcome this obstacle.

Last, wikis facilitate the collaboration that may produce a more robust, multifaceted understanding of a concept by allowing multiple writers to contribute to the resulting wiki page. Many concepts in the domain of social justice education such as the intersectionality of identity markers and social construction are best understood through a multi-dimensional analysis with contributions from multiple perspectives. Using wikis to co-construct this understanding from multiple contributors representing multiple

perspectives may be the most effective way to help students understand the social justice knowledge measured in this study.

Students in the high technology section of the course employed a wiki to write jointly, in groups of three, a critical analysis of an identity marker. Students were expected to work on one or more sections of the assignment and to collaborate with classmates to synthesize, connect and uniformly format their final paper. Students produced a series of web pages on a course-sponsored wiki, with each group producing a single page first defining the group's identity marker, then analyzing how it relates to four aspects of social power before ending with a discussion of the classroom applications of how teachers might challenge problematic social constructions and forms of inequality related to the group's chosen identity marker. Each student could access and edit any page of the wiki at any time; but students were given four weeks to work on their group's wiki page. The wiki itself was publicly viewable by anybody but required approval from the instructor before an account with editing privileges was granted. This collaborative and publicly accessible format exposed students to other group members' - and other classmates' - perspectives, facilitated the co-construction of knowledge that advances social justice knowledge, and replaced the obstacle of isolation with the socio-emotional support that working with peers engaging in similar identity re-negotiation affords.

For further discussion of previous research on these affordances of wikis, see the Research on the Educational affordances of Web 2.0 technologies section of the Literature Review chapter.

Figure 2

Sample wiki page from identity marker group wiki assignment.

Reflection videos. Three affordances of video journals may be particularly relevant to changes in students' social justice disposition and knowledge. First, creating a video journal is a simple process of speaking into a webcam and orally reflecting on one's experiences. Because creating these journal entries requires very little effort, students reflecting through this medium may be more inclined to speak longer and go into greater depth in their reflection than those asked to write out their reflections. While greater length of reflection does not guarantee a greater depth of analysis, for students in a social justice education course grappling with making sense of new class concepts and new experiences in their service learning site, more time to work through their thinking may be beneficial to students as they reexamine their beliefs and ideas.

Second, the ease of access to video journals via hosting sites that group previously recorded videos together (as with the site used in this study) may encourage students to re-view their previous journals, a practice that can help students make connections between their previous and current experiences. Making these connections may impact students' social justice knowledge by helping them see the relationships between concepts and/or impact their social justice dispositions by showing them how their beliefs may have changed over the course of the semester.

A third affordance of the video medium for reflective journaling is found in how speaking casually to a private audience (the instructor) may lead students to reflect in a more honest, open manner. This "stream of consciousness" speech - speaking without censoring oneself - may more accurately portray the student's internalized beliefs and ideas. Honesty about one's own beliefs and ideas is an important part of social justice education courses. For a student in a class such as this, in which their preconceived ideas and beliefs may be challenged, being disingenuous about how one actually feels can be a barrier to dispositional reexamination and any change coming from that reexamination. Over the course of the semester, students in this study spent a total of 20 hours (typically two hours a week for ten weeks) engaging in a service learning project. At their sites, students observed teachers and students, worked with individual or small groups of students, or helped the teacher deliver whole group instruction. After any service learning visit, students could record a video journal of at least six minutes in length reflecting on their experiences in the classroom. The instructor determined this length by timing the reading of a two-page written journal (the expected length for the traditional section) aloud in order to make the two versions of the assignment comparable in terms of student

effort required. Each student created six service learning video journals and uploaded it onto a site which made it very easy for students to find and re-watch their past reflections when they log in to post a new video. The structured organization on the video journals on the site facilitated students' making connections over the course of the semester between their field experiences and their growing social justice knowledge, and also afforded the opportunity for students to track their own dispositional growth.

For further discussion of previous research on these affordances of video journals, see the Research on the Educational affordances of Web 2.0 technologies section of the Literature Review chapter.

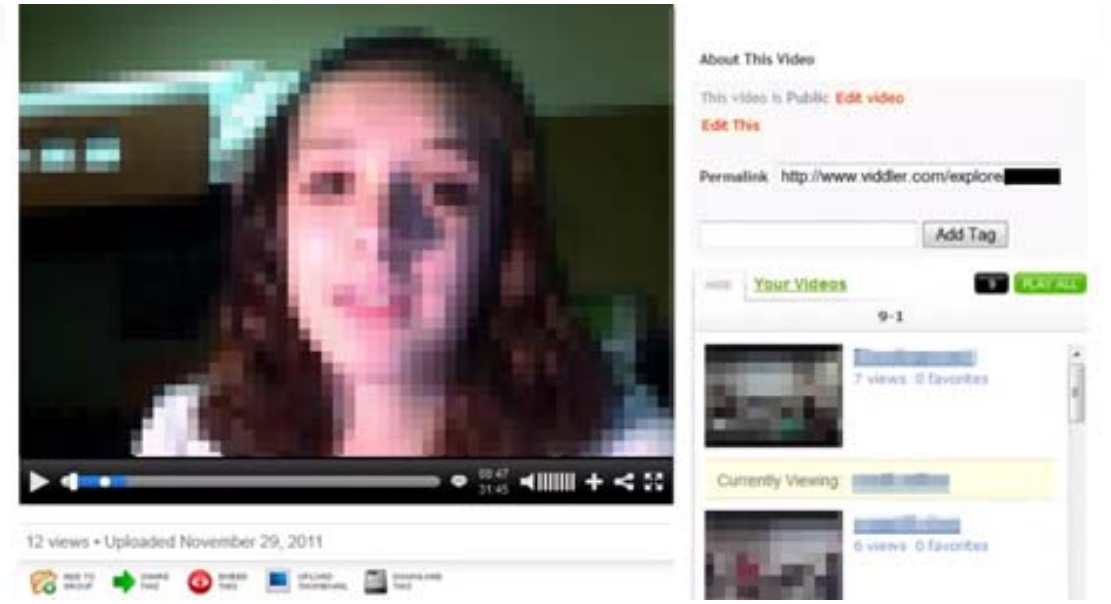


Figure 3

Sample student video from service learning video journal assignment.

Chapter 4 - Research Methods

Participants

For this research, the theoretical target population was all undergraduate preservice teachers in the early stages of a teacher education program. The sample population from which participants in this research were drawn is all preservice teachers enrolling in one of two sections of a social justice teacher education course at large mid-western university in the current semester. Students were not aware when they enrolled for the course what the class assignments would be; therefore, participants in this research were effectively randomly assigned to either the traditional section or the section using Web 2.0 technologies. Within the sampled participants, all 30 students (15 in each section) were recruited to participate. Recruitment involved sending students a link to an online form asking students for their consent in having their work in the class included in this study. All 30 students digitally signed the form and agreed to participate (see Appendix C for student consent online form). All 30 students were sophomores; 18 planned to pursue a degree in elementary education and 12 planned to pursue a secondary education degree. The racial and gender demographic of the sample were typical of previous semesters of the course. Twenty six participants identifying as Caucasian, three participants identified as African-American, and one (an international student) identified as "Chinese." Of the 30 participants, 20 were women and 10 were men. For a more complete discussion of the study participants, see Chapter 3.

A subset of these participants had their work included in qualitative data analysis and follow interviews (see Appendix C for additional consent form for follow up interviews). This subset was a purposeful sample of four students in the high technology

section of the course. These four students were selected to have their work analyzed based on their performance on each of these assignments and in class overall. Specifically, four students in each section were identified who not only scored exceptionally well on one or two of the assignments, but on all three assignments as well as on their class participation grade and their overall final grade. The students averaged scores of 94%, 95% and 96% on their blog assignment, wiki assignment and video journal assignment respectively, 90% on class participation grade and 98% on their overall final grade. Given the students' high achievement on these assignments, it was assumed that their work was more likely to have used the technologies to a fuller extent and thus more likely to demonstrate evidence of the media's affordances for influencing social justice dispositional and knowledge growth. All four students in this purposeful sample were sophomores, three students were women and were elementary education majors. One was a man and planned to pursue a secondary level certification in history education. All four students identified as white.

Data Sources and Measures

Both quantitative and qualitative data were collected concurrently in order to address each of the research questions guiding this study. For a summary of how each of these data sources are aligned with this study's research questions, see Table 9 at the end of this section.

Learning to teach for social justice – belief (LTSJ-B) scale. This data source was used to quantitatively assess changes in participants' dispositions about social justice education, which provided evidence towards Research Questions 1.1 and 1.2.

Previous administrations of this scale from 2005-2007 consistently showed a Cronbach alphas 0.80 at each administration of the Entry (freshmen-level) survey and an alpha of approximately .74 for the Exit (senior-level) Survey The scale variance estimates on all Entry Surveys was between 35 and 42; the scale variance estimates on the Exit Surveys was approximately 30 across all administrations (Enterline, Ludlow, Mitescu & Cochran-Smith, 2008). The differences between these Exit and Entry Survey reliability estimates and scale measurements were believed to be a result of the homogeneity of the teacher education curriculum. In other words, students enter the program with a wide degree of past experiences which caused a greater scale variance, but after four years of exposure to similar programs of study, they exited with a lower degree of variance on the scale. Since the magnitude of the Cronbach alpha is a function of scale variance, this reduction in scale variance represented only a slight decline in reliability between Entry and Exit Surveys (Enterline et al.).

For this study, scoring for the LTSJ-B included generating a mean score for each participant based on the 12 surveys items. To answer Research Question 1.1, pre-test and post-test scores for each participant were statistically analyzed using a paired sample t-test for significant differences. To answer Research Question 1.2, participants' post-test LTSJ-B scores were analyzed using a two way ANOVA test to identify a statistically significant interaction effect between two independent variables and one dependent variable. In this study, the independent variables were *placement* (i.e., students' placement in either the high technology or traditional class sections and *time* (i.e., the time difference between students' pre and post-test scores on the LTSJ-B) and the dependent variable was the students' post-test scores on the LTSJ-B. In other words, the

two way ANOVA test was conducted to identify significant differences between students' scores over time (pre and post test), but also differences *between* the groups' change in pre and post test scores.

Short essays assignment. This data source generated quantitative data about participants' social justice related knowledge that contributed to answering Research Questions 2.1 and 2.2. Previous research has identified multiple types of knowledge important for teaching for social justice, that for the purposes of this study was conceptually defined into three overarching categories: a) Knowledge of the self, including one's own biases, presumptions and perspectives; b) Knowledge of students, including the culturally-specific experiences, beliefs, traditions and behaviors that students bring with them into the classroom; and c) Knowledge of the social, historical and political contexts that built and still shape the United States' public educational system. However, despite the identification of these important forms of knowledge for teaching for social justice, no previous research has attempted to empirically measure individuals' knowledge of these issues.

Development of this instrument occurred locally. Beginning with Howard's (2006) three categories of social justice educational knowledge, the researcher wrote three open-ended short essay questions. These questions were taken to two graduate students in the department of Teacher Education with research and teaching experience in the field of social justice education. These fellow social justice educators were asked for their input on the clarity and thoroughness of the items, as well as on the construct validity of the items (i.e., if they thought the questions would likely generate answers that actually demonstrated students' social justice knowledge). Feedback from the graduate

students was mostly positive; both educators agreed the questions were phrased clearly and that the combination of all three questions covered a breadth of social justice knowledge so that student answers, taken as a whole across all three questions would accurately demonstrate their knowledge of social justice issues in education. The two graduate students did suggest that the questions were phrased in a way that primed the answerer to think specifically about social justice issues such as privilege and discrimination and suggested language to make the questions more "neutral sounding," and to help prevent priming participants from giving socially desirable responses (though these responses may still show a lack of knowledge). For example, the first question was changed from, "As a teacher, how might your past experiences give privilege to some students and/or discriminate against others?" to " How will your own personal past experiences, beliefs and perspectives influence your work as a teacher?

Pilot versions of these questions were given in May of 2011 to 16 preservice teachers who had recently completed a course on social justice teacher education. Pilot responses to these three short essay questions were reviewed by the researcher with an in-service public school teacher who has a strong commitment to, and knowledge of, social justice education. By reviewing participants' answers together, the evaluators developed four and five point scales for scoring the depth and accuracy of students' answers in each of the three knowledge domains. The creation of this scale began by first identifying positives and negatives in students' responses (i.e., parts of their answers that demonstrated more or less of an understanding of each social justice knowledge domain), then organizing those positives into sub-domains. For example, one sub-domain of knowledge of teacher bias that arose was the degree of focus on cultural issues/biases, as

opposed to "neutral" biases not related to issues of equity. For each question, four or five sub-domains were created, becoming sub-scales to be averaged together to generate an individual score a student's knowledge in each domain (see Appendix B for full scales, sub-domains and sample answers representative of different scale levels on the scale).

Using these scales, the researcher and a different second coder with extensive experience in quantitative data analysis scored a sample of students' responses in order to establish inter-rater reliability. After scoring students' answers individually and subsequently conferring over differences, the two coders reached a sufficient degree of inter-rater reliability. The Krippendorf's α of 0.81 for the first scale, 0.84 for the second scale, and 0.82 for the third scale. Each of these scores is above the threshold of 0.8 suggested by (Krippendorff 2008).

To answer Research Question 2.1, pre-test and post-test scores for each participant's score on each of the three short essay questions were statistically analyzed using a paired sample t-test for significant differences. To answer Research Question 2.2, participants' pre and post-test scores on each of the three short essay questions were analyzed using a two way ANOVA test to identify a statistically significant interaction effect between two independent variables and one dependent variable. In this study, the independent variables were *placement* (i.e., students' placement in either the high technology or traditional class sections and *time* (i.e., the time difference between students' pre and post-test scores on the short essay assignment) and the dependent variable was the students' post-test scores on the short essay assignment. In other words, the two way ANOVA test was conducted to identify significant differences between

students' scores over time (pre and post test), but also differences *between* the groups' change in pre and post test scores.

Student work on course assessments. Over the course of the semester, students in both sections completed a number of assignments that were graded as formative assessments of their knowledge of class concepts related to social justice in education. Some of these assessments used the same media type (e.g., the formative exam and cultural autobiography paper), but three assignments were differentiated by course section: Students' service learning reflective journal, their critical analysis of a current event or media artifact, and their collaboratively-written critical analysis of a socially-constructed identity marker. Students in the "high technology" course section used online videos for their journal, a series of individually written blog posts for their event/media critical analysis, and a collaboratively assembled set of wiki pages for their identity marker critical analysis. Students in the "traditional" course section used text documents for all three of these assignments.

To aid in answering Research Question 3, qualitative data analysis of student work on formative assignments used a purposive sample of four students' work from the high technology section. The four students were selected to have their work analyzed based on their excellent performance on each of these assignments and in class overall. Given the students' high achievement on these assignments, it was assumed that their work was more likely to have used the technologies to a fuller extent and thus more likely to demonstrate evidence of the media's affordances for influencing social justice dispositional and knowledge growth. In all, of the 90 video journals, 120 blog posts, and 25 wiki sections created in the "high technology" section of the course, the 24 video

journals, 32 blog posts, and 6 wiki sections created by these four students were included for qualitative analysis.

Evidence of each Web 2.0 technology's affordances for impacting students' social justice dispositions and knowledge were examined in two ways – within the "high technology" section and across sections to student work in the traditional section. First, starting with themes derived from previous research on the educational affordances of video journals, blogs and wikis that may be applicable to social justice education courses, student work was examined for evidence of, and differences between, how students in the traditional and "high technology" sections demonstrated their social justice dispositions and knowledge. Second, within the "high technology" student sample, student work on these assignments was examined for changes in the ways students demonstrated shifts in dispositions and changes in knowledge over time that may be due to the medium's affordances. This analysis was well-suited for students' video journals and blog posts which represent multiple entries written over a three month period, as opposed to wiki pages and traditional text assignments which were written in a relatively short period of time. For further discussion of analysis methods, see Data Analysis chapter.

Student interviews. Following the completion of the course, interviews were conducted with the four students in the "high technology" section of the course whose work was included in qualitative analysis. The purpose of these interviews was to have students reflect on their experiences using Web 2.0 technologies in instruction and assessment and elucidate how these technologies may have helped them reach the course's learning goals. Interviews were conducted in a private setting on campus and follow a semi-structured format with eight open-ended questions, each including follow

up prompts (see Appendix B). To aid in recall, students were asked to re-visit their blog, wiki and video journals, and samples of their work was available during the interview. Each interview lasted approximately 30 minutes and allowed time for subjects to ask questions at the end.

Table 9

Research questions and data sources

Research Question	**Data Source**	**When Administered**	**Data Analyses**
1.1 - Pre/posttest Social Justice dispositional changes overall	LTSJ-B dispositional survey	Beginning of semester and end of semester	Paired sample T-test of pre- and post-test scores for all students
1.2 – Difference in Social Justice dispositional change between course section	LTSJ-B dispositional survey	Beginning of semester and end of semester	Two-way ANOVA comparing differences in change in pre- and post-test scores between traditional and Web 2.0 technologies sections
2.1 - Pre/posttest change in Social Justice knowledge overall	Short essay assignment	Beginning of semester and end of semester	Paired sample T-test of pre- and post-test scores for all students
2.2 – Difference in Social Justice knowledge change between course section	Short essay assignment	Beginning of semester and end of semester	Two-way ANOVA comparing differences in change on short essay assignment scores between traditional and Web 2.0 technologies sections
3 - Affordances of technologies for impacting Social Justice dispositions and knowledge	Student work on blogs, wikis and video journals	Throughout the semester	Qualitative analysis of student work triangulated by student interviews

Data Recording

Quantitative data for this study was collected from two in-class assignments (the LTSJ-B survey of social justice in education beliefs and the short essay assignment about social justice in education knowledge) given on the first and last days of class. Scores from these two assignments were recorded into spreadsheets during coding of student responses. Qualitative data in this research was the primary documents created by students in the form of text- or video-based reflective journals, paper- or blog-formatted critical analysis papers and collaboratively written papers or wiki sections. Students' video journals were posted online as streaming .flv files and were saved as .avi files. Students' blog posts and wiki pages were posted online as .html files and were download as complete web-page (.html and associated) files. Students' paper-based journals and critical analysis papers were originally submitted digitally as .rtf text files and were collected as such. All files of student work were saved on the researchers' password protected computer.

Student interview data was collected and recorded using digital audio recorders. Using audio recorders allowed the researcher to follow a semi-structured approach and adapt questions based on interviewees' responses. After each interview, the researcher took descriptive and reflective notes while listening to the audio recording, and deleted the audio recording thereafter.

Research Design

This study employed a mixed methods approach, using specifically a concurrent transformative design with data collected through both quantitative and qualitative methods in order to answer the three overarching research questions.

In concurrent transformative research design, quantitative data is collected at the same time as qualitative data; however neither data type is given a higher priority. Instead, priority is given to the overarching theory or conceptual framework guiding the study and the data collection and analysis methods that are best suited to understanding and/or adding to the theory or conceptual framework are employed as appropriate (Creswell, 2013).

For this study, quantitative and qualitative data was collected at the same time from already existing data sources. Quantitative data was collected from student responses to the LTSJ-B surveys and short essay assignments administered at the beginning and end of the course. Qualitative data was collected from student work on class assignments and follow up student interviews. Both quantitative and qualitative data was given equal priority and weight as both was used to answer the study's different, but equally-weighted research questions. Data was integrated after data analysis during the interpretation of findings phase. During data collection and analysis, different types of data was collected and analyzed separately. At this point, the quantitative data (in the form of raw coded scores) and qualitative data (in the form of thematic codes) was compared with one another to create an interpretation of evidence answering the research questions. Throughout the study, data collection and analysis was guided by the overarching conceptual framework of social justice education and the influence of media on the learning processes. This research strategy is represented visually as:

QUAN + QUAL + QUAN
Social Justice Education, Media's influence on learning

This specific research strategy was appropriate given the simultaneous nature of data collection and analysis, the equal prioritization given to the research questions each type of data addressed, and the importance of existing theories and conceptual frameworks guiding this study.

Role of the Researcher

As qualitative data collection and analysis methods are a part of this research, it is important to acknowledge the role the researcher typically plays in qualitative research. Typically, a qualitative researcher collects, analyzes and interprets data that is ultimately constructed into new knowledge. In this way, the researcher plays a central part in the study; therefore it is critical to acknowledge the personal perspectives the researcher brings to this study and the dynamic relationship between the researcher and participants.

My past experiences undeniably play a part in how I have framed and carried out this research study. Raised in an affluent, predominantly white suburb, I was afforded an excellent education where school was taught in clean, safe, well-resourced schools with teachers who largely shared my lived experiences and cultural background. Students were held to high expectations, with graduating from college being seen as the "normal" path for all. However, as a teacher in a low-income urban school district teaching primarily children of color and children from immigrant families, I saw first hand the gulf in educational opportunities between students of geographically close, but socially and economically distant schools. This experience learning the details of educational inequity led me to pursue a career in social justice teacher education, in hopes of preparing future teachers with the knowledge of the systems of grossly unequal educational opportunity. I

observed the social, political and historical contexts that created and sustain these systems, and what teachers in all types of schools and districts can do to dismantle them.

These experiences and the beliefs they ingrained in me influenced my role as a researcher in this study in multiple ways. Most broadly, the topic I chose to research largely stems from my belief in the importance of social justice teacher education; a belief constructed first during my time as an urban educator and subsequently developed as an teacher education instructor. This study's purpose and conceptual framework are based on the underlying belief that, in order to achieve the ideals of an equitable society, major institutions, including educational systems must be critically examined for how they perpetuate systemic discrimination and privilege, and have these systems dismantled. A critical component of this examination and dismantling is a socially justice teacher education that goes beyond the traditional multicultural education goals of celebrating and affirming diversity. My design of this study to adopt a critical perspective is clearly influenced by my personal belief in the importance of the learning outcomes for this course and the overall purpose of this study.

The fact that I feel so strongly that it is imperative pre-service teachers develop critically conscious dispositions and knowledge not only shaped my design of this study, but also my interpretation of the data. I have high expectations for what students need to take away from the course in this study, and when individual students' answers on end of the semester assignments (e.g., the social justice knowledge post-test; their final video journals) still do not show dispositional or knowledge growth, it likely frustrated me. This frustration may have led me to score these submissions lower than they should have been scored, and/or to have potentially overlooked evidence of overall growth.

In a somewhat different direction, I carried some assumptions about the pre-existing beliefs and knowledge of participants in this study that may have made me interpret the data less critically. In my experiences as a social justice teacher educator, I have found that the majority of my students have had a social and educational upbringing similar to mine before I began teaching. Based on this observed similarity, I assumed that most of the students in this study, as was the case for me at their age, had a general disposition towards the ideals of social justice education (e.g., equal opportunity, democracy in education and social mobility) but with very little knowledge about how unjust educational opportunity and experiences often are. Therefore, during data collection and analysis, I likely expected to see students demonstrate a low level of social justice knowledge and hold some dispositions that did not align with the values of social justice education, especially on assignments from the beginning of the semester. For example, in analyzing students' social justice knowledge pre-test and initial reflective journals, I may have been more open to rating demonstrations of low levels social justice knowledge more highly, giving students some benefit of the doubt about their starting place with these issues.

Another influence my beliefs and experiences likely had on data analysis is that I am somewhat skeptical about how educational technologies, including those in this study, can change teaching and learning. While not agreeing with Clark's (1994) assertion that the affordances of an educational medium have little direct impact on learning outcomes, I come from a perspective articulated by scholars such as Cuban (2001) who believe that educational technologies' effects on learning have largely been exaggerated - that, for a variety of reasons, the way educational technologies are used in classrooms limits their

potential impact. From this skeptical perspective, I likely began data analysis somewhat expecting to see limited evidence that these technologies' affordances were being used in a way that promotes students' social justice growth.

In addition to my personal experiences and beliefs influencing how I conduct this study, my dual role as a researcher and teacher is a critical source of bias introduced into the study. I was the instructor for sections of the course being evaluated in this study, which is likely to influence my role as a researcher in multiple ways. First, as a researcher, I am evaluating the effectiveness of this course and exploring the influence of the technologies included in this study as a result of my experience with them as an instructor. I have taught this course and used these technologies, but have not had a systematic, empirical analysis of their effect on students' learning about social justice. This study is motivated by these experiences as an instructor and as a researcher. I was likely expecting to confirm what I suspected as a teacher - that the course overall, and these specific technologies to a lesser extent, had a positive influence on students' learning.

Second, throughout the study, some of the data I collected was based on work I as an instructor prepared my students for and assigned. It was my responsibility to evaluate the work for evidence of the variables under study, and not in terms of its quality towards meeting assignment grading criteria. It was helpful that my grading for this course had already been completed when I began analyzing student work as data in order to remind me to consider the data as to how it answered the research questions and not specifically as to how it met the assignments' expectations. Third, it is possible that, during analysis, I may have been influenced by my memory of a students' performance in the class and

may have interpreted individual students' work more positively or negatively. For example, for a student I knew performed well in the course, I may have been more willing to positively interpret a neutral response or infer a positive meaning that is not actually present in the data.

In my role as a researcher, I experienced a number of biases introduced as part of the qualitative research process. While recognizing that all research is subject to bias and that, for qualitative research especially, the human factor of the researcher as an instrument is both a fundamental weakness, but also the greatest strength (Patton, 1990) I attempted to control for these biases in two ways: through using reflective commentary notes and extensive member checking.. First, my notes taken during the stages of qualitative data analysis of students' work and while reviewing student interviews included reflections on my own subjectivity. This "reflective commentary" (Shenton, 2003) acts as a form of self-evaluation to monitor my own developing interpretations of the data. The purpose of these comments are to make explicit my own prejudices and assumptions so that I become aware of them and can challenge them in my further reading of the data. This bias check was especially useful during initial descriptive analysis of students' work where I would frequently write reflective notes, asking myself if my initial interpretation was accurate or if an alternative reading was possible (and listing as many alternative interpretations as I could). I would return to these notes in subsequent readings and reconsider the alternative interpretations when looking for patterns in the data.

The second guard against researcher bias I included in the qualitative research was an extensive use of member checking (Lincoln & Guba, 1985). In using "member

checking" or "participant validation," the researcher presents his or her interpretations of the data directly to the participants themselves for them to validate or verify. This process not only serves to check the researcher's subjective interpretation, but also add the participants' own voices to the final presentation of the data. In this study, qualitative analysis of the students' work on class assignments generated a number of insights and possible avenues of interpretation. I presented my insights and possible interpretations from each student's work directly to that student during subsequent interviews. This member checking process often became the focal point of the interviews with my interpretations and the participant's responses being the ebb and flow of the conversation. As an example of this process, I would present to the participant a piece of their class work (e.g., a blog post or video journal entry), state my "noticing," and what was my working interpretation of what I noticed. Participants responded to confirm, refute or nuance my "noticing" and interpretations, checking my researcher bias and adding their own insights to the data analysis and interpretation process.

Data Analysis

Quantitative data. In answering Research Questions 1.1, 1.2, 2.1 and 2.2, quantitative data from the LTSJ-B and short essay questions assignment were analyzed as pre- and post-test measures of the course's effect on the two components of learning in social justice education and to identify any significant differences between mean scores between the two course sections.

Scoring on the LTSJ-B was generated by taking the mean of each participant's scores for the 12 items, factoring in reverse coding for negatively phrased items. Scoring on the short essay questions assignment was generated by taking each participant's

answer on each question and evaluating it against a five point scale for its depth and accuracy. This scale was developed by the researcher and an additional coder based on existing samples of student work (see Appendix B for scale).

For this study, Research Questions 1.1 and 2.1 generally refer to changes in individual students' dispositions (RQ 1.1) and knowledge (2.1) between pre- and post-test administered at the beginning and end of the semester. The LTSJ-B dispositional survey and short essay knowledge scores for each participant in both sections of the course (estimated N=30) were calculated based on their responses to the pre- and post-test LTSJ-B survey. Differences between participant's pre- and post-test scores were analyzed for statistical significance using a paired-sample t-test. The percentage of participants with scores demonstrating a statistically significant difference were measured to evaluate the overall course effectiveness in changing social justice dispositions and knowledge.

Research Questions 1.2 and 2.2 generally refer to differences in learning outcomes between the "traditional" and "high technology" class sections which may be due to the media types used in class assignments. To answer this question, students' scores in each section of the course were compared with one another to demonstrate possible differences in the degree of change in social justice disposition and knowledge between students in the "traditional" course section and those in the "high technology" section. This comparison used a two way ANOVA to identify a statistically significant interaction effect between two independent variables (students' placement in either the high technology or traditional class sections and time) and one dependent variable (students' post-test scores on the LTSJ-B and short essay assignment. In other words, the

two way ANOVA test was conducted to identify significant differences between students' scores over time (pre and post test), but also differences between the groups' change in pre and post test scores.

Qualitative data. In answering Research Question 3, qualitative data from a purposeful sample of students' work on in-class assignments and a series of follow-up student interviews were analyzed as an exploration of potential affordances of Web 2.0 technologies for impacting social justice disposition and knowledge learning goals. These potential affordances represent a-priori codes from previous research on blogs, wikis and video journals. For a complete list of these themes/affordances, see Table 10.

Qualitative analysis of student work occurred in a series of passes over the data, beginning with descriptive coding, followed by, where appropriate, analytical coding through longitudinal and cross-section comparisons. Qualitative analysis began by organizing the data into analyzable segments. Segments identified differed by media type but included individual sentences or a series of related sentences, individual images, videos or hyperlinks. Following this, descriptive analysis then began with the purpose of identifying overall where the a priori codes/affordances were likely to have been shown in students' work. For example, any evidence of making conceptual connections in a blog post based on input from readers (Deng & Yuen, 2011) would require looking at comments, then subsequent posts whereas students in their video journals demonstrating "stream of conscious honesty" and avoiding self-censoring (Loury, 1994; Marwick & boyd, 2011) would likely be found in individual videos. After identifying where these themes were likely to be evident, student work was typically read three to four times, focusing on a specific a-priori theme each time to create a richer description of

affordance use and its potential impact on the student's social justice beliefs and/or knowledge.

It was during this descriptive analysis that a significant change occurred in the coding process and a new theme emerged. Initially, the second pass over student work sought to create categorical code to organize whether segments demonstrated affordances related to beliefs, knowledge or both. However, this strategy changed as it became clear that the assignment's grading criteria, not the medium used, dictated for what purpose students used the technology. For example, because blog and wiki assignments chiefly were graded on how well the student demonstrated their knowledge and did not ask students to express their beliefs about the subject, affordances originally thought of as relating to dispositional shifts were very infrequently present. Similarly, as video journals were much more focused on students' own beliefs and ideas, there seemed to be a paucity of use of affordances related to knowledge growth. Overall, the distinction between use for knowledge and dispositions was defined more by task, than affordance, and this stage in the analysis was therefore altered.

Instead of categorizing what kind of learning was occurring during each affordances' use, this stage of analysis continued with a deeper descriptive analysis to identify frequency and patterns of affordance use that may have led to changes in social justice beliefs and/or knowledge. During this stage of descriptive coding, an additional category was created to represent when it appeared an affordance could have been used in a students' work (e.g., an image could have been used or a comment made by a reader could have been subsequently integrated) but was not. This “missed opportunities” is an emergent theme that developed during data analysis and is not specifically drawn from

previous research (though previous research has discussed the misuse and underuse of educational technology). Responses from student interviews about their experiences using each technology were used to triangulate interpretations of the occurrence, or lack there of, of each affordance.

Following descriptive analysis based on a priori codes, analytical coding began on segments where a specific educational affordance use was evident. This comparative analysis occurred in two directions - across sections and longitudinally within the high-technology section. Looking across sections, segments with evidence of educational affordance use were compared to parallel sections of the same assignment done by a purposive sample of four high achieving students in the "traditional" class section. This comparison sought to highlight frequency and thematic differences in how students in the high-technology section used the affordances of each technology in a way that might have impacted their dispositions and/or their knowledge in ways not used or unavailable to students in the traditional section. Lastly, segments representing students' use of educational affordance were compared to other sections of the same students' work completed at a later time. This comparison was meant to demonstrate frequency and thematic changes over time in ways students used the technologies' affordances that may have had an impact on their social justice beliefs and/or knowledge, in accordance with previous research. This time-based comparison was best suited for video journals and blog posts, which represent multiple entries written over a three month period.

Table 10

Educational affordances used in qualitative data analysis, by media type

Media Type	Affordance	Previous Research
Blogs	B1. Enhanced self-expression via multiple media forms	Deng & Yuen, 2011
	B2. Reflection through connecting thoughts via hyperlinks between posts	Ferdig & Trammell, 2004; Stiler & Philleo, 2003
	B3. Making connections with input from readers	Deng & Yuen, 2011
	B4. Socio-emotional support when adopting critically conscious perspectives.	Kreijns, Kirschner & Jochems, 2003
Wikis	W1. Reconsidering own ideas because of contributions from authors with different perspectives	Chandra & Chalmers (2010); Reinhold & Abawi (2006)
	W2. Socio-emotional support of camaraderie in ideological re-examination	Farkas, 2007
	W3. Facilitated understanding of social justice concepts because of multiple contributors' perspectives and ideas	Reinhold & Abawi, 2006
Video Journals	VJ1. Greater depth and length of reflection	Heintz, Borsheim, Caughlan & Juzwik, 2010
	VJ2. Reflection through connections made after re-watching previous video journal entries	Lee, 2008
	VJ3. Lack of self-censoring (stream of conscious honesty	Loury, 1994; Marwick & boyd, 2011

Strategies for Validating Findings

This study employed multiple strategies for validating findings from its quantitative and qualitative data analysis.

Clarifying bias. Creswell (2013) describes the importance of qualitative researchers stating the biases they bring to the research in order to "create an open and honest narrative that will resonate well with the reader" (p. 196). By stating my positionality at the beginning I am acknowledging the preexisting beliefs that color my interpretation of the data and adding to the trustworthiness of my interpretation of the data and this study's results. This is done, however, while maintaining that all teaching and research is biased (Applebaum, 2009).

Triangulation. Triangulation is not necessarily a tool for validation, but an alternative to validation that adds depth, complexity, richness and rigor to an interpretation (Flick, 2002). In addition to member checking used as a guard against researcher bias in interpreting themes and patterns from students' work, the multiple sources of data in this study act as a form of triangulation for the study's overall results and conclusions. For example, qualitative data was used in answering Research Question 3, however it also serves to add layers to the ultimate conclusions that can be reached from the quantitative data analysis.

Second coders. A currently-practicing public school teacher who is also a former student of this course and knowledgeable about the learning goals of social justice education was used in the development of social justice knowledge instrument quantitative coding scales. This contribution helped establish content validity of the instrument, establishing that students' answers did indeed reflect their degree of

knowledge in each of the three domains. In addition, a different second coder with experience using Web 2.0 technologies in instruction and significant knowledge of quantitative research methods was used in analyzing students' answers on the social justice knowledge instrument for quantitative data analysis. This coder's input helped establish the inter-coder reliability of scales used in quantitative data analysis for Research Questions 2.1 and 2.2

Chapter 5 - Results

This chapter reports the results of quantitative data analysis of students' scores on two instruments and qualitative analysis of students' work on class assignments and post-hoc interviews. The two instruments used for quantitative data collection and analysis are the Learning to Teach for Social Justice – Beliefs survey and the Social Justice Knowledge short essay assignment Results are presented here organized by the Research Questions for which they provide evidence. A summary of pre-test/post-test changes in students' disposition and knowledge scores is presented below in Table 11. This data answers Research Question 1.1 and 2.1 as to the overall impact of the course on students' social justice dispositions and knowledge, regardless of course section.

Table 11

Pre-test/post-test changes in dispositions and knowledge for each section and overall

	Traditional Section		Technology Section		Overall	
	Pre	Post	Pre	Post	Pre	Post
Dispositions	3.68 (0.38)	4.04** (0.38)	3.59 (0.32)	3.98** (0.52)	3.64 (0.35)	4.01** (0.45)
Knowledge	1.36 (0.55)	2.13** (0.64)	1.81 (0.13)	2.28* (0.78)	1.81 (0.60)	2.20** (0.65)

* *Pre-Post change* $p<0.05$; ** *Pre-Post change* $p<0.01$

Research Question 1.1

This research question asks: What was the impact of the teacher education course on social justice education on pre-service teachers' social justice dispositions regardless of course section (n=30)? To answer this question, a paired samples t-test was conducted on overall changes in students' dispositions as measured by pre-test (μ=3.64, SD=.35) and post-test (μ=4.01, SD=0.45) scores on the Learning to Teach for Social Justice-

Beliefs survey. Figure 4 below displays the pre- post-test changes in students' LTSJ-B scores by course section.

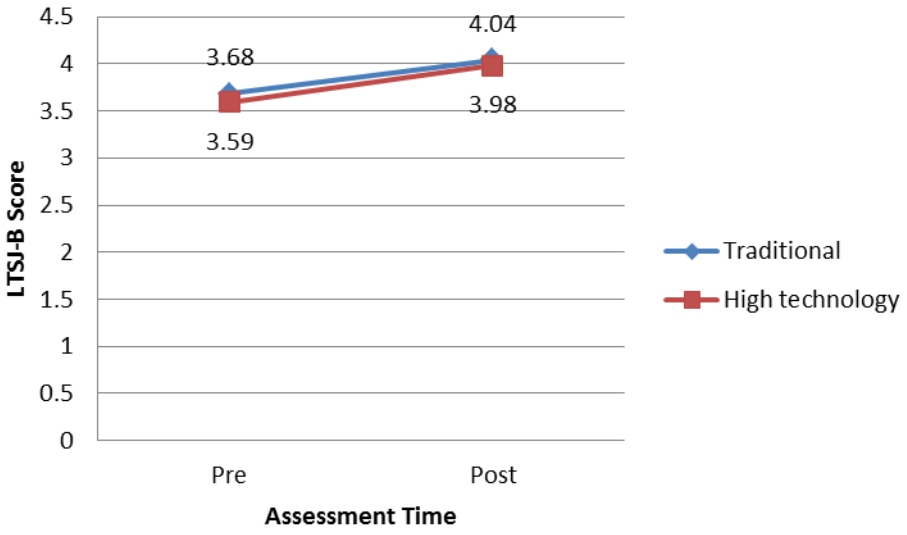


Figure 4*:*

Pre-test/Post-test change in LTSJ-B scores by course section

When using a paired sample t-test, normal distribution is assumed. Prior to analysis, normality of distribution for each variable was considered satisfactory as the skew and kurtosis levels were estimated at 0.55 and 0.23 respectively for pre-test scores and -0.73 and -0.26 respectively for the post-test scores. Results from the paired samples t-test provide evidence that the course did in fact significantly increase pre-service teachers' social justice dispositions; $t(29)=6.04$, $p<0.01$, $d=0.93$. These results suggest that, when considering the degree of dispositional change before and after the course for all students, the course achieved one of its stated goals: to shift students' dispositions toward more socially just beliefs.

Connecting these results back to this study's conceptual framework of social justice beliefs (Table 12) further explains what this change in scores means. These results

suggest that, regardless of course section, the 30 students in this study changed in their social justice dispositions over the course of the semester. By the end of the semester, students were more likely to believe in major tenets in social justice education including the power of teacher bias, that those biases along with other social powers and institutions can further discriminate against already marginalized children, and that teachers should be change agents, challenging these systems of inequality through a multicultural and critically conscious curriculum and pedagogy.

Table 12

Conceptual Framework of Social Justice Beliefs

Belief	**Description**
B1	Identity markers are largely, if not entirely, socially constructed
B2	Social power, discrimination and privilege is real in society (debunking myth of meritocracy)
B3	Belief in bias (one's own & others)
B4	Schools & teachers have historically, and continue to operate in a way that perpetuates inequality
B5	Schools in all areas & teachers in all subjects should be change agents for students and society by incorporating multicultural curriculum and making issues of inequality explicit in their work

These results demonstrate a much larger effect size than those reported in previous studies that used the LTSJ-B as an assessment of change in students' social justice dispositions. Cochran-Smith, Ludlow, Ell, O'Leary & Enterline (2012) reported the results of three large-scale studies assessing the impact of teacher education programs in three countries on students' social justice dispositions. Analysis of difference in pre-

test and post-test mean scores for students in these three programs showed significant gains in students' social justice dispositions. However, these gains showed effect sizes of only d=0.16, d=0.11, and d=0.14 for each of the three programs. By Cohen's (1988) own standards, these effects sizes are relatively small.

Research by Evans (2013) found effect sizes similar to those of Cochran-Smith et al. (2012). Evans assessed the impact of a social justice mathematics course on three cohorts of teachers' dispositions. The course was not found to have a statistically significant impact on teachers' LTSJ-B scores and relatively small effect sizes of d=0.0, d=0.25, and d=0.26 for each of the cohorts.

By comparison, the effect sizes of the LTSJ-B pre-test/post-test gains for students in this study were much larger. The overall effect size of dispositional change was d=0.93, representing nearly a one standard deviation gain for students' dispositional scores. This represents tremendous growth in social justice dispositions and indicates that the course in this study was exceptionally successful in impacting students' beliefs

Research Question 1.2

This research question asks: How do these dispositional changes differ for students enrolled in the course section employing Web 2.0 technologies (n=15) compared to students enrolled in the course section employing traditional methods of instruction (n=15)? To answer this question, a two way ANOVA test was conducted. A two way ANOVA considers two (or more) independent variables influence on a dependent variable. In this case, the independent variables are *placement* (i.e., students' placement in either the high technology or traditional class and *time* (i.e., the time difference between students' pre and post-test scores on the LTSJ-B). As was discussed in the

results for RQ1.1, there was a statistically significant main effect of time on students' LTSJ-B scores $F(1,28) = 35.33$, $p<0.01$, $\eta^2= 0.56$. However, there was no statistically significant interaction effect between time and placement on students' post-test LTSJ-B scores $F(1,28) = 0.06$, $p=0.81$, $\eta^2= 0.01$. In other words, while there was a statistically significant *within section* change over time, there was not a statistically significant difference on the degree of change *between* sections change over time.

As reported in the previous section and in the Measuring dispositions section of the Literature Review, multiple previous studies have analyzed pre-test/post-test changes in LTSJ-B scores as an examination of the effects of individual courses (Evans, 2013; Lazar, 2012; Leonard & Evans, 2013) and entire programs (Anastasia & Hewett, 2012; Cochran-Smith, Ludlow, Ell, O'Leary & Enterline, 2012; Enterline, 2008). However, this research question features a cross-case comparison of the changes between two sections' LTSJ-B scores as an examination of differential impact of the educational affordances of traditional and Web 2.0 technologies unique to each section. Two previous studies that have quantitatively examined pre-test/post-test dispositional changes and collected data on multiple cases (Cochran-Smith, 2012 and Evans, 2013) did not examine differences in the degree of change between these cases. Cochran-Smith, Ludlow, Ell, O'Leary and Enterline (2012) examined dispositional changes in three teacher preparation programs and Evans (2013) examined these changes in three teacher cohorts over a single semester. However, unlike this research question, both of these studies did not take up the question of comparing the differential effect each program or course's affordances had on the dispositional outcomes. This research question's results showing similar dispositional

outcomes between two sections employing different methods for social justice teacher education is unique in this body of research.

Connecting back to the conceptual framework for this study, the similarity of the degree of dispositional change between sections indicates that the two groups were indistinguishable in how their scores shifted. This test result gives evidence that the combination of the common and unique affordances of each sections of the course had a very similar impact on students' dispositions.

Research Question 2.1

This research question asks: What was the impact of the teacher education course on social justice education on pre-service teachers' social justice knowledge regardless of course section (n=30)? To answer this question, a paired samples t-test was conducted on the pre- and post-test scores of each of the three questions comprising the Social Justice Knowledge short essay assignment as well as on students' combined, overall scores on the assignment. The Social Justice Knowledge short essay assignment purports to assess students' knowledge of 1) the way their own perspectives will influence their teaching, 2) the way their future students' own perspectives will influence their learning and 3) the socio-political contexts of education. Figure 5 below displays the pre- post-test changes in students' scores on this knowledge assessment by course section.

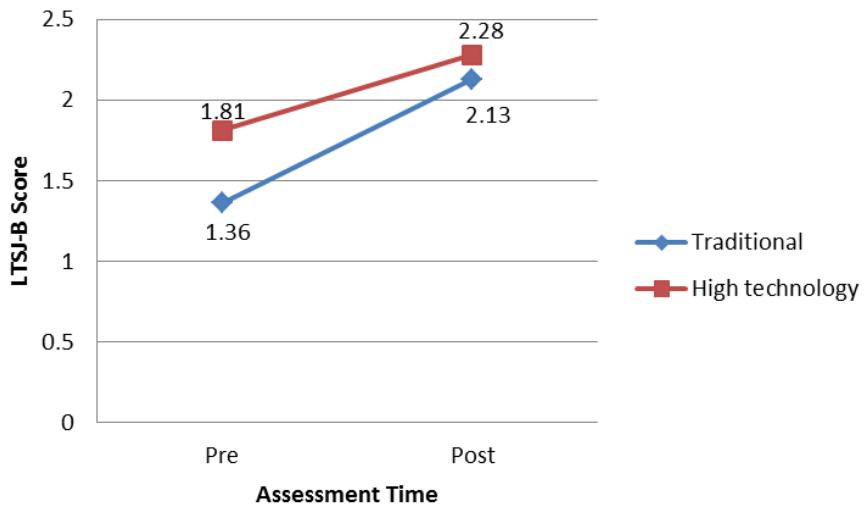


Figure 5*:*

Pre-test/Post-test change in social jusice knowledge short essay assignment scores by course section

Overall, the difference between the mean pre-test scores (μ=1.59, *SD*=0.57) on the Social Justice Knowledge short essay assignment were significantly different, $t(29)=4.66$, $p<0.01$, $d=0.95$, than the mean-post-test scores (μ=2.20, *SD*=0.70) at the $p<0.01$ level. What this means is that, in general, students showed a significant improvement in their social justice-related knowledge from the beginning of the class to the end. Comparing students' pre- and post-test scores on individual questions shows a similar result. The difference between pre-test scores (μ=1.59, *SD*=.57) and post-test scores (μ=2.2 *SD*=.70) on Question 1 was statistically significant, $t(29)=4.66$, $p<0.01$, $d=0.95$, at the p<0.01 level. Similarly, the difference between pre-test scores (μ=1.66, *SD*=.46) and post-test scores (μ=1.96, *SD*=.64) on Questions 2 was also statistically significant, $t(29)=2.16$, $p<0.05$, $d=0.53$ at the $p<0.05$ level. Last, the difference between pre-test scores (μ=2.19, *SD*=.58) and post-test scores (μ=2.43, *SD*=.53) on Questions 3 was statistically significant, $t(29)=-2.23$, p,0.05, $d=0.43$, at the $p<0.05$ level.

These results from the paired samples t-test provide evidence that the course did in fact have a statistically significant impact on pre-service teachers' social justice knowledge of the impact of their own biases; $t(29)=-4.66$, $p<0.01$, $d=0.95$, those of their students; $t(29)=-2.16$, $p=0.04$, $d=0.53$ and the influence of historical, political and social contexts on schools; $t(29)=-2.23$, $p=0.03$ $d=0.43$. These results suggest that, when considering the degree of knowledge change before and after the course for all students, the course achieved one of its stated goals: to make students more knowledgeable about three relevant knowledge domains important for being an effective social justice educator.

Connecting these results back to this study's conceptual framework of social justice knowledge (Table 13) further explains what this change in scores means. These results suggest that, regardless of course section, the 30 students in this study changed over time in their knowledge of issues related to social justice in education. By the end of the semester, students had a better understanding of how their own previous experiences will influence their work as teachers, how students' previous experiences will influences their experiences in school, and of historical, social, and political contexts that have influenced education.

Table 13

Conceptual Framework of Social Justice Knowledge

Knowledge	Description
K1	Critical knowledge of self; personal biases, past experiences as shaping beliefs; knowledge of own beliefs & assumptions; knowledge of own identity markers; knowledge of how these influence their own educational experiences
K2	Critical knowledge of students; knowledge of their cultures and identity markers; how these influence their educational experiences
K3	Critical knowledge of current and historical political and social contexts of education

It is difficult to compare these results to prior research as researchers have not previously quantified social justice knowledge as a measurable variable. Previous research has argued that part of learning to be a social justice educator is gaining knowledge such as those represented in this study's conceptual framework. However, no previous research has qualitatively or quantitatively measured social justice knowledge, nor assessed the impact a course like the one in this study may have on such knowledge.

Research Question 2.2

This research question asks: How do these knowledge changes differ for students enrolled in the course section employing Web 2.0 technologies (n=15) compared to students enrolled in the course section employing traditional methods of instruction (n=15)? To answer this question, four separate two-way ANOVA tests were conducted, one for each question on the Social Justice Knowledge short essay assignment and a final test for each student's overall average score on this assignment. A two way ANOVA considers two (or more) independent variables influence on a dependent variable. In this

case, the independent variables are *section* (i.e., students' placement in either the high technology or traditional class) and *time* (i.e., the time difference between students' pre and post-test scores on the short essay assignment). As was discussed previously, there were statistically significant main effects of time on students' scores on all three knowledge questions. For question one, the results were $F(1,28) = 21.93$, $p<0.01$, $\eta^2= 0.44$, for question two the results were $F(1,28) = 4.56$, $p<0.05$, $\eta^2= 0.14$, and for question three, the results were $F(1,28) = 4.84$, $p<0.05$, $\eta^2= 0.15$. Similar to the change shown on each individual question, there was a significant main effect of time on students' overall scores on this assignment $F(1,28) = 21.93$, $p<0.01$, $\eta^2= 0.44$.

However, there was no statistically significant interaction effect between time and placement on students' post-test Social Justice Knowledge short essay assignment scores for any individual question or students' overall score. For question 1, the results were $F(1,28) = 1.30$, $p=0.26$, $\eta^2= 0.04$, for question 2 the results were $F(1,28) = 0.35$, $p=0.56$, $\eta^2= 0.01$, for question 3 the results were $F(1,28) = 0.14$, $p=0.71$, $\eta^2= 0.01$ and for students' overall scores, the results were $F(1,28) = 1.30$, $p=0.26$, $\eta^2= 0.04$. In other words, while there was a statistically significant *within section* change over time, there was not a statistically significant difference on the degree of that change over time *between* sections.

Connecting back to the conceptual framework for this study, the similarity of the degree of knowledge change between sections indicates the two groups were indistinguishable in how they grew in their knowledge. This test result gives evidence that the combination of the common and unique affordances of each sections of the course had a very similar impact on students' social justice knowledge.

It is not known how these ANOVA results fit with previous results as no past research has measured social justice knowledge quantitatively or qualitatively.

Research Question 3

This research question asks: In what ways does using a collection of Web 2.0 applications influence how students develop their social justice dispositions and knowledge? To answer this question, student blogs, wikis and video journals were analyzing in a series of stages to identify, categorize, and evaluate evidence of specific affordances being used to represent the students' social justice dispositions and knowledge (see Methods section). This analysis was based on specific affordances examined by previous research that may be particularly useful for achieving the study's social justice dispositional and learning outcomes (Table 14). Following this analysis, students were interviewed about their work and the researcher's interpretations. The results of that analysis are presented by media type, with particular attention given to each affordance under analysis. Table 15 presents a summary of the frequency each affordance was noted being used in the data or reported to be used by students during interviews.

Table 14

Educational affordances used in qualitative data analysis, by media type

Media Type	**Affordance**	**Previous Research**
Blogs	B1. Enhanced self expression via multiple media forms	Deng & Yuen, 2011
	B2. Reflection through connecting thoughts via hyperlinks between posts	Ferdig & Trammell, 2004; Stiler & Philleo, 2003
	B3. Making connections with input from readers	Deng & Yuen, 2011
	B4. Socio-emotional support when adopting critically conscious perspectives.	Kreijns, Kirschner & Jochems, 2003
Wikis	W1. Reconsidering own ideas because of contributions from authors with different perspectives	Chandra & Chalmers, 2010; Reinhold & Abawi, 2006
	W2. Socio-emotional support of camaraderie in ideological re-examination	Farkas, 2007
	W3. Facilitated understanding of social justice concepts because of multiple contributors' perspectives and ideas	Reinhold & Abawi, 2006
Video Journals	VJ1. Greater depth and length of reflection	Heintz, Borsheim, Caughlan & Juzwik, 2010
	VJ2. Reflection through connections made after re-watching previous video journal entries	Lee, 2008
	VJ3. Lack of self-censoring (stream of conscious honesty	Loury, 1994; Marwick & boyd, 2011

Table 15

Frequency of educational affordances use, by media type

Media Type	Affordance	Frequency
Blogs	B1. Enhanced self expression via multiple media forms	17 of 32 (53%) posts included images/video clips
	B2. Reflection through connecting thoughts via hyperlinks between posts	0 of 32 posts (0%) used hyperlinks in connections of ideas to other posts
	B3. Making connections with input from readers	9 of 45 (20%) comments incorporated into subsequent writing
	B4. Socio-emotional support when adopting critically conscious perspectives.	43 of 45 (96%) comments contained socio-emotional support
Wikis	W1.Reconsidering own ideas because of contributions from authors with different perspectives	0 of 4 (0%) students reported influence by wiki on opinion on class topics
	W2.Soci-emotional support of camaraderie in ideological re-examination	0 of 4 (0%) students reported feeling support from peers through wiki
	W3.Facilitated understanding of social justice concepts because of multiple contributors' perspectives and ideas	2 of 4 (50%) students reported improved understanding of class concepts resulting from reading others' wikis
Video Journals	VJ1.Greater depth and length of reflection	20 of 24 (83%) of video journals exceeded length and time requirements of journal
	VJ2.Reflection through connections made after re-watching previous video journal entries	7 of 24 (29%) journal entries referenced previous journal entries
	VJ3.Lack of self-censoring (stream of consciousness honesty)	1 of 4 (25%) students reported never censoring speech in journal entries

Blogs. Over the course of one month, students in the high technology section wrote a series of blog posts analyzing a current event or media artifact. In their analysis, students applied ideas from class readings to their event/artifact, discussed classroom implications and, in their final post, reflected on the process of writing their blog. In their posts and in comments from classmates assigned to "follow" them, students' work demonstrated, to various degrees, their use of the individual educational affordances of these technologies (see Table 14) in representing their beliefs and knowledge.

Overall, the four students in the purposive sample frequently took advantage of using images and videos as enhanced forms of self expression (affordance B1). Over the 32 blog posts analyzed, students used images and/or video clips in 17 posts (53%). Meanwhile, students also frequently provided socio-emotional support when adopting critically conscious perspectives (affordance B4). Of the 45 comments left by students, almost all (43) contained some socio-emotional support. On the other hand, writers infrequently used the blogs' comments to inform their subsequent posts (affordance B3). While 32 of the 45 total comments left by readers contained feedback that could have aided the writers' thinking about their topics, only nine times did the writers incorporate this feedback into their later writing. Similarly, students infrequently made use of blogs' ability to hyperlink ideas between posts as a way of demonstrating their conceptual knowledge (affordance B2). Twenty of the 32 blog posts contained language that specifically referred back (or ahead) to big ideas elaborated in other posts, but in all 20 examples, the writer did not make the explicit connection via hyperlink.

Deng & Yuen (2011) argued that the ability of blogs to incorporate multiple forms of media such as images and videos may enhance writers' self expression beyond

that which would be possible with text alone (affordance B1). In the purposive sample here, students did in fact frequently use this affordance. In 17 of the 32 blog posts analyzed, students included images and/or video clips (8 included only images, 5 included only video clips, 4 included both images and videos). Students primarily used images and videos to supplement their text as they demonstrated their knowledge of social justice concepts. For example, one student, in discussing religious identity added an image of several religious icons at the top of her post. As another example, a student included a YouTube video clip that showed statistics of bullying against LGBT youths. In her text, the student referred back to these statistics, connecting them to the social justice class concepts of individual and structural discrimination (see Figure 6).

Students made less use of affordance B1 over time. After a month of writing posts, only one student included a video or image in any of their final two posts. Interview data from students gave two possible reasons for this decline in use. First, as two students explained, finding videos and images from external sites was simply too time consuming. The time necessary to find illustrative videos and images was seen as especially unnecessary because, as one student commented, they were not part of their grade on the assignment.

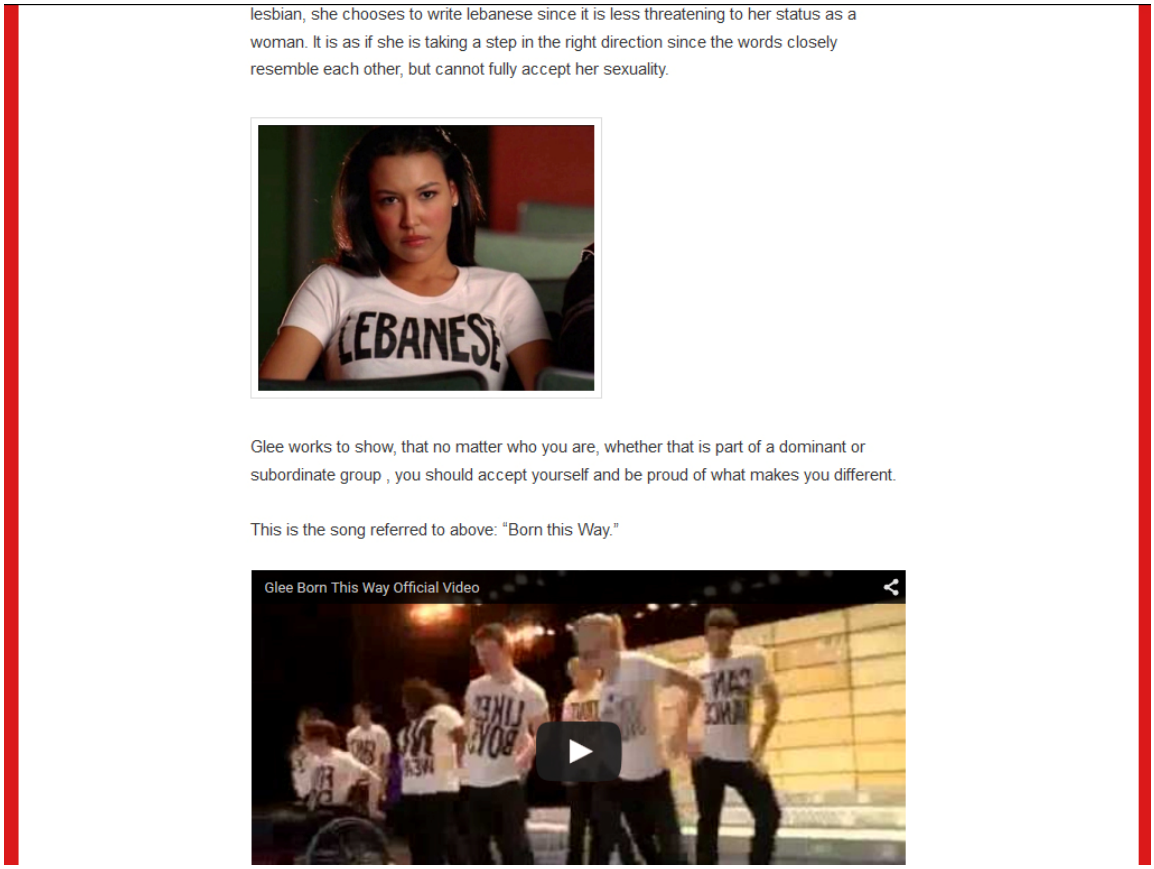


Figure 6

Sample blog post using video and images in addition to text

Previous research by Ferdig and Trammell (2004) and Stiler and Philleo (2003) has argued that because of the affordances of hypertext and the fact that blog posts are written over time, but still connected under a single site, writing on a blog may aid writers' reflection (affordance B2). This affordance specifically allow writers to connect their thoughts in one post back to previous posts (or, with post-hoc editing, forward to later posts) and perhaps, enable them to more deeply understand a concept. At times, students did demonstrate that they were metacognitively thinking about their previous or future thoughts expressed in other blog posts. For example, while discussing the social

class of characters in the movie Crash, one student referred back to his previous discussion of racial identity in the movie and to a future post on the intersection of these two identity markers. However, in neither instance did he actually hyperlink these explicit references in his present thoughts back or forward to his thinking in other posts. This kind of passing textual reference to a students' thinking elaborated elsewhere was seen in comparative examples of students' papers. For example, three students in the traditional course section used phrases such as "as I will discuss later" and "as I said previously" in their text-only papers. Interview data gave some explanation for why blog writing students did not use hyperlinks to connect their thoughts between posts. As one student stated succinctly, she "didn't think to do that because [the instructor] didn't ask us to."

Deng and Yuen (2011) argued that blogs have a unique affordance for communication between writer and audience that can help shape the writers' message (affordance B3). Specifically, blog posts are written individually over a period of time, and readers are able to leave comments on the writers' work. This communication channel between reader and writer facilitates a feedback loop that may improve students' conceptual knowledge as they write. Out of 45 comments analyzed in this study, the majority (32 out of 45; 71%) provided constructive input to the writer about the writers' conceptual understanding (see Figure 7). However, for a variety of reasons, this feedback was largely unincorporated into the writers' thinking, as only nine times did those 32 constructive comments noticeably impact the students' writing.

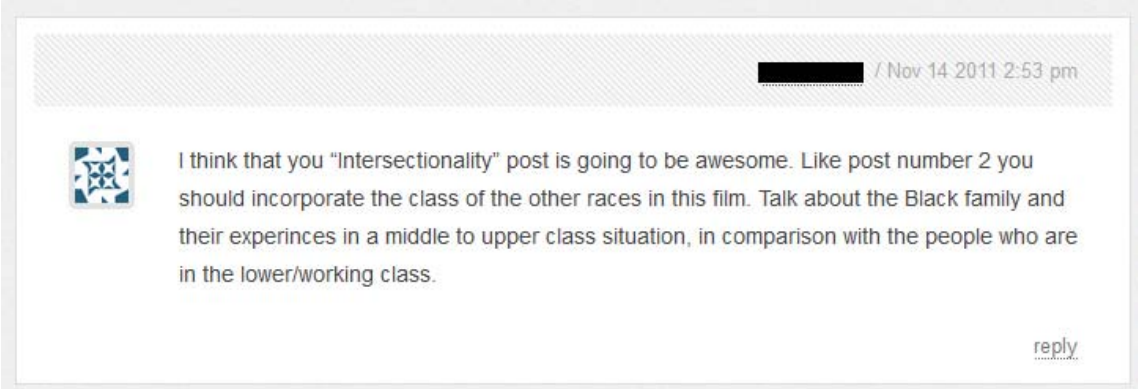


Figure 7

Blog post comment providing feedback for the author

Students offered several reasons for not using this affordance. First, students found comments somewhat limited to specific posts and not as helpful in informing future posts. For example, one reader asked the author of a blog about LGBT bullying to expand her discussion of discrimination, but because future posts focused on different social justice concepts, the writer judged her work to be sufficient and instead chose to move to the next post/concept. In interviews three of the four students sampled said they did not regularly read the comments left by their readers because comments come after the assignments are due and because comments were not seen as useful or necessarily as constructive. When one student was shown an example of a reader's comment made on a mid-month post that she could have incorporated into a later post, the student acknowledged that she had simply stopped reading comments altogether by that point.

It is worth noting that one student in the sample not only regularly read classmates' comments before writing later posts but also took that feedback into consideration as she wrote future posts. For example, in the comments section of her initial post introducing her analysis of the television show *Glee*, a reader suggested the writer describe the role other characters' reactions, especially those of the athletes, played

in enforcing gender norms in the show. The writer included both suggestions in her subsequent gender analysis post. In all, while the potential for blogs' affordance of user feedback in knowledge co-construction was attempted and at times fully realized, overall this affordance was underutilized and, over time, frequently ignored.

Students did use the commenting featuring of blogs for another purpose noted by previous research (Dickey, 2004; Kreijns, Kirschner & Jochems, 2003) and particularly useful in social justice education courses: socio-emotional support (affordance B4). Throughout the sample of student blogs, almost all comments (43 out of 45) included some form of socio-emotional support (see Figure 8). A portion (15 out of 45) of these comments gave only vague or general positive feedback such as "I really think you picked a great topic" and "Great job, can't wait to hear more!" that did not specially address the writers' expression of a social just disposition. However, the remaining 28 out of 45 (62%) comments were directed at the writers' dispositions. As an example of this kind of support, in response to a students' analysis of oppressive gender norms, one student commented, "I definitely agree … society has made this picture of what an 'ideal' woman should be, that so many just can't live up to, so they feel insecure and it causes many problems in their lives." This kind of agreement and support of the writers' beliefs was a common refrain through the comments section.

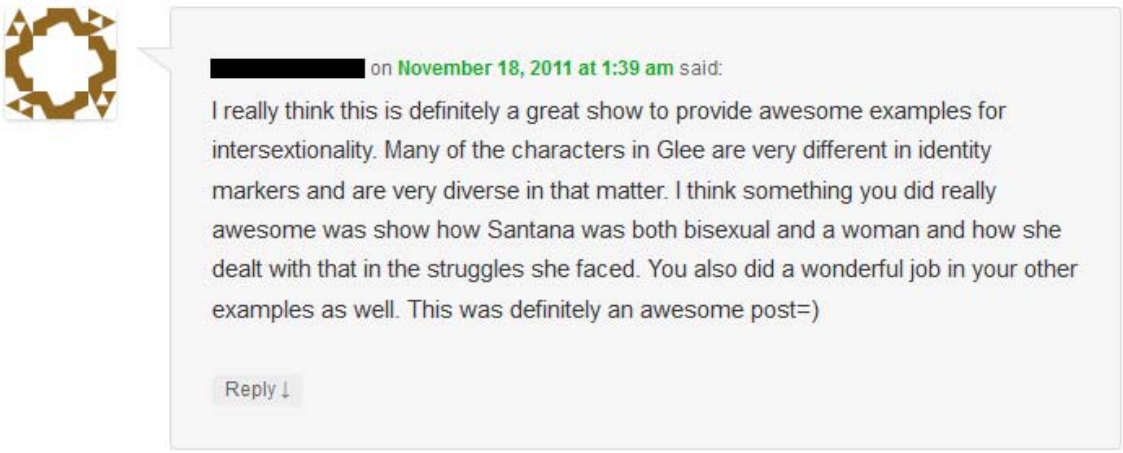


Figure 8

Blog post comment providing socio-emotional support to the author

Readers also frequently gave support by recognizing when the writer has successfully/accurately analyzed a concept. For example, two students responded to a writers' analysis of sexual orientation as represented in the television show *Glee* with comments like, "I think you did an excellent job of displaying different aspects of what sexual orientation brings to *Glee*" and "You explain the ideas of personal homophobia, interpersonal homophobia, institutional homophobia and cultural homophobia very well." These kinds of comment do not give explicit support for the writer *expressing* socially just beliefs. Nonetheless, this approval/recognition tacitly supports the writers' socially just perspective. This pattern of support dovetails with the fact that nowhere across the sample did a reader challenge or express an ideological critique of a writers' socially-just language/perspective. Some students suggested the writer add to their analysis by including additional ideas or references, but none of the 45 comments criticized the writer for their beliefs. Taken as a whole, the majority of comments in some way showed

affirmation of the critically conscious dispositions expressed by the author and criticism of the authors' beliefs was completely absent. This consistent support indicates that, overall, students used this affordance of blogs to help support their classmates' social justice dispositional development.

As with using reader comments to co-construct knowledge, commenting to provide socio-emotional support is potentially seen in a peer-editing collaborative writing setting for traditional, text-only writing. However, the rapidity and in-line nature of blog comments make this feedback channel more efficient, and potentially have a greater impact in supporting social justice disposition taking when done online. It is worth recalling however that, during interviews, three out of four students acknowledged not reading comments on a regular basis. That being said, these students all said they read comments, just not immediately after they were posted. Therefore, it was not surprising that, when asked about how it felt to read supportive comments, all four students said they enjoyed their readers' emotional support, even if that support was not received on a post-by-post basis.

Wikis. Over the last month of the course, students in the high technology section worked individually and in groups to write a collection of pages for a class wiki. Each page focused on one identity marker (e.g., race, social class) and contained five sections explaining different aspect of that identity marker (e.g., social construction, privilege, discrimination) as discussed in class. Two of the students in this purposive sample worked on sections for the Social Class wiki page and two students worked together on the Language wiki page.

Pages and sections that students wrote in the course Wiki were examined for evidence of students' use of educational affordances derived from previous research (W1, W2, and W3 from Table 14). Overall, students' final written work demonstrated no observable evidence of any of the themes derived from previous research.

Because these themes focus on students' interactions and therefore may not be readily observable from the finished text, a second stage of data analysis was used, examining the tracked changes group member made to one another's writing (see Figure 9). In this sample, students made a total of 30 revisions to their groups' wiki pages. These revisions were not evenly split between the two groups - the Language group's wiki page only had 3 revisions, all by the same student, while the Social Class group's wiki page had 27 revisions by three different students.

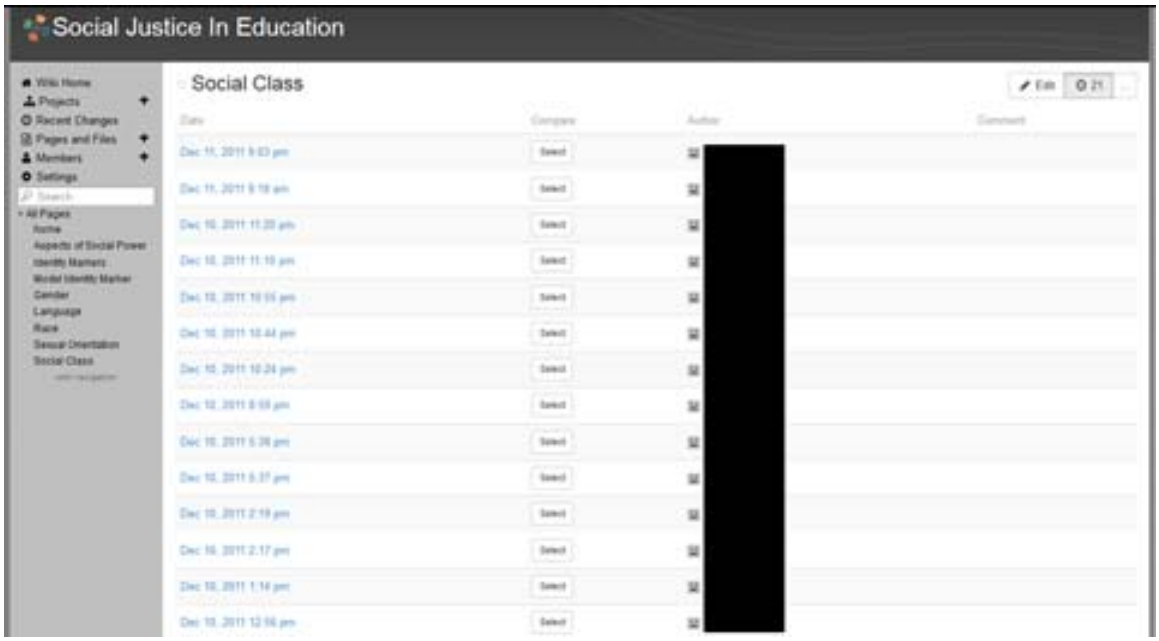
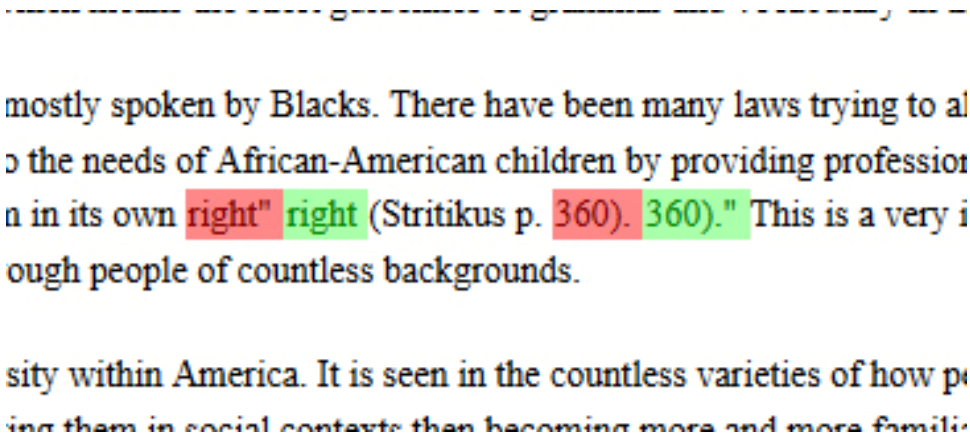


Figure 9

Wiki track changes page

Of these 30 revisions, six changes were a student adding their own original text to the wiki page, seven changes were a student editing their own writing, and 17 changes were made to another students writing. Of these 17 instances of a student editing another student's text, all represented only minor changes to punctuation (five times), formatting (six times), phrasing (four times) or grammar (two times) (see Figure 10). Taken as a whole, as with the first stage of data analysis, the textual record of students' collaboration through changes to one another's wiki sections showed no evidence of students using the collaborative affordances of wikis in ways described by previous research to shift dispositions, provide socio-emotional support, or deepen students' conceptual understanding.


mostly spoken by Blacks. There have been many laws trying to al
o the needs of African-American children by providing professio
n in its own right" right (Stritikus p. 360). 360)." This is a very i
ough people of countless backgrounds.

sity within America. It is seen in the countless varieties of how p

Figure 10

Sample edit made to wiki page showing minor grammar changes

Student interviews were next used to triangulate these observations by asking students directly about their experiences with the wiki's collaborative elements. Previous research by Chandra and Chalmers (2010) and Reinhold & Abawi (2006) has argued that wikis' ability to facilitate collaboration between people with different perspectives can

expose writers to a greater variety of ideas and thus lead individual contributors to reconsidering their own ideas (i.e., affordance W1). In interviews, all four students acknowledged reading the contributions of other students in their own group and those working on other identity marker sections. However, no student reported having their opinions about class topics influenced by what they read on the wiki. As one student explained, "Basically, [the wiki] was all the same kinds of things people would say in class, … I paid attention in class and thought more about what people were talking about in class than what was on the wiki. It was the same kind of things though, just the same ideas."

In addition to shifting dispositions, Reinhold & Abawi (2006) argued that the collaborative elements of wikis can help students better understand a concept because of multiple contributors' perspectives being added (affordance W3). Of the four students interviewed, two agreed they understood class concepts at least somewhat better because of reading others' wiki pages, while two students did not see much benefit. One student specifically identified the power of multiple contributions on the wiki as helping her understanding. This student noted some students were quiet in class, but "talked" through the wiki and that their contributing to the conversation was beneficial because, "people have different ideas about [class concepts] and reading people's different ideas and opinions helps you see how complicated this all is." Not all students saw a learning benefit to reading multiple perspectives on class concepts. One student noted that the ideas presented were not significantly different than what was said in class, because, as he put it, "I think people knew what to write and were just trying to get a good grade and follow the assignment."

Lastly, researchers such as Farkas (2007) have argued that the collaborative element of wikis can lend socio-emotional support to individual students (affordance W2). Of the four students interviewed, none of the students reported feeling additional, direct, support from their peers through the wiki. One student, noted that, unlike blogs, there was not a channel for students to provide support to others. She said, " With the blogs, readers were saying nice things to sort of encourage each other. … but nobody said anything on the [wiki] page." However two students acknowledged that there may have been some tacit support in that, because, as one student said, "people would agree with each other and piggyback off what somebody was saying, so you knew somebody agreed with you wrote [on the wiki]." On the other hand, two students did not feel a sense of support from their classmates through their work on the wiki. These students qualified that this lack of feeling supported may have been mostly due to the fact that they were not looking for such support. One student reported already feeling "very comfortable" talking about issues of discrimination and identity, and did not need much affirmation from her classmates (on or offline), while the other student said "I didn't really think about what others thought about my part of the page. … I didn't really care if people agreed with me or not, I really just wanted to make sure I was getting a good grade."

Video journals. Over the course of the semester, each student in the high technology section recorded six video journals (six written journals in the traditional section) reflecting on their experiences observing in a local classroom. Students were instructed to make their video journals at least six minutes long (two pages long in the traditional section) and focus on their own reflection and analysis of what they saw that week rather than simply describing/summarizing classroom events. Each student in this

sample produced six video journals. These 24 videos were examined for evidence of students' use of educational affordances described in previous research (VJ1, VJ2, and VJ3 from Table 14). Where applicable, video journals were compared to a sample of 24 written journals from four high achieving students in the traditional class section.

Overall, students' video journals demonstrated a mixed picture of use of the mediums' educational affordances. Students' video journals more frequently (83%) exceeded length expectations as compared to written journals (54%), but video journal students did not spend most of their time analyzing events (37%) as compared to students writing their journals (52%) who did so. A greater number of video journals (29%) referenced previous journals as compared to 17% of written journals, but all references in both video and written journals were to general, big ideas rather than specific details. Finally, in very few (2 out of 24, 8%) video journals did the speaker explicitly appear to self-censor (e.g., by saying, "How should I put this?"). On the other hand, all videos contained behaviors potentially indicative of self-censoring (e.g., long pauses, looking away from the camera) but that could also be interpreted as simply aiding recall. Because of the ambiguous nature of these observed behaviors, follow up interviews asked students about the degree to which they self-censored while recording video journals. All four students reported that they infrequently, if ever, stopped themselves from saying something the way they were thinking.

In their reflection on using various web 2.0 technologies with their students, Heintz, Borsheim, Caughlan and Juzwik (2010) noted that video channels may lead to greater length and depth of student reflection (affordance VJ1). Students were instructed to make their video journals a minimum of six minutes in length, which is comparable

when read aloud to two double space pages (the minimum page length for written journals) and to spend most of their time analyzing events (as opposed to describing them). Therefore, as a way to measure this affordance, videos journals were compared to written journals in terms of their overall length and the percentage of time the student spent analyzing events. Overall, 20 out of 24 (83%) video journals exceeded length expectations while only 13 out of 24 (54%) of written journals did so. The extended time students took on their video journals however did not mean they used that extra time for a greater degree of reflection and analysis. On average, video journal students spent most of their time describing events (63%) as opposed to analyzing those events (37% of their video time). This pattern of favoring description over analysis also compares poorly to written journals were students did use the majority (52%) of their reflection to analyze, rather than describe, classroom events. In a follow up interview, one who consistently recorded videos longer than the expected length, acknowledged spending most of that time describing and "babbling on" about what she saw that day, saying, "I don't know what I was trying to say, I think I was just happy to talk about my day and I didn't really think about the assignment [to analyze]."

Several researchers have argued reflective journaling may enhance students conceptual understanding of subject matter (Hiemstra, 2001; Schoen, 1987; Van Maanan, 1990) while others have focused on the importance of making connections in journals (Lee, 2008). Students in both sections of the course were encouraged to review previous journal entries before writing new ones, but video journals, being accessible from anywhere and easily reviewable in just a few minutes may be particularly suited to revisiting and making connections (VJ affordance 2). In addition, students' past videos

are accessible from the main page they use to record new videos, further facilitating access to previous videos for re-watching (see Figure 11). Indeed, it seems video journal writers more often made explicit connections back to previous journal entries. Seven out of 24 (29%) video journals in this sample referenced previous journals in some way as compared to only four out of 24 (17%) of written journals. Notably though, both of these percentage represent a small portion of the total sample. This underuse by both groups is most likely due to the fact that students did not frequently re-watch their previous video journals. In follow up interviews, one student reported never re-watching his videos; the other three reported only watching previous videos again "once or twice."

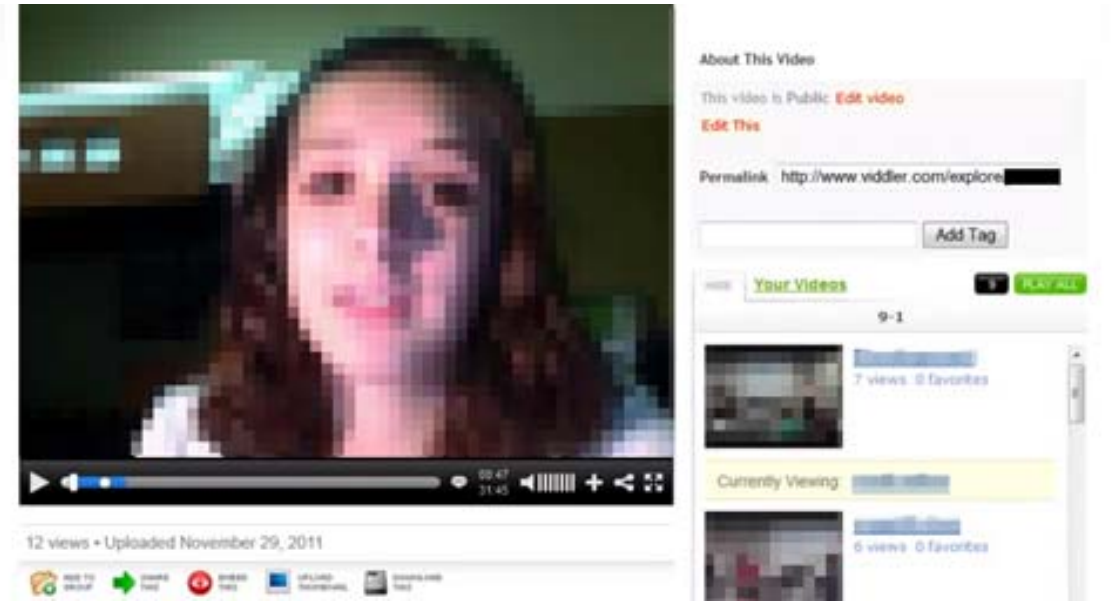


Figure 11

Sample video journal page showing previous videos on the same page

Last, video journals were analyzed for evidence that speakers refrained from self-censoring (VJ affordance 3). Previous research has argued that self-censoring is an impediment to honest discourse and reflection (Loury, 1994), a practice that carries over

with similar effects to computer mediated communication (Marwick & boyd, 2011). An initial analysis of students' video journals found that all videos contained instances of behaviors that may be used for self-censoring such as pausing during explanation, looking away from the camera, and using qualifying words, Additionally, in two videos the speakers seemed to explicitly state they were avoiding saying something (e.g., saying, "How should I put this?"). However, it was not clear by simply viewing video journals the thought process behind these actions. In follow up interviews, students were asked to review their video journals and report to what degree they recall censoring themselves while recording their journals. No student reported re-recording a video because they did not like how or what they said. One student reported "never" stopping himself from saying something the way he was thinking it; all three other students reported infrequently doing so.

Chapter 6 - Discussion

Overall Impact on Dispositions

A major conclusion of the results of this study is the course's impact on students' dispositions. Overall, combining both the traditional and high-technology sections of the course (*n*=30), the course was successful in shifting students' dispositions toward being more socially just. This is seen in the significant difference between students' pre-test and post-test scores on the LTSJ-B scale. At the beginning of the semester, the average score on the LTSJ-B pre-test across both sections was a 3.64 out of five. The LTSJ-B asks students the degree to which they agree or disagree with social-justice minded statements such as “teachers should teach students to think critically about government positions and actions” with a score of 3 translating to “unsure." Therefore, at the beginning of the semester, students’ dispositions were not “anti-social justice,” but their scores did not indicate a clear agreement with these kinds of social justice-minded statements. However, by the end of the course, these scores had shifted to a mean score of 4. 01 out of five, meaning students on average "agreed" with social-justice minded statements such as “part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities." The post-tests score showing a clear agreement with social justice dispositional statements demonstrates a significant change in students' beliefs and an important outcome of the course.

This change in students’ beliefs is important on a conceptual level when considering the role dispositions play in teacher education, especially social justice education. Dispositions represent a fundamental component of being a social just educator. In order to practice the kinds of culturally relevant pedagogies infused with

multicultural curriculum social justice educators have created and promoted, a belief that teaching as a political act for challenging systemic inequality not only matters, but that it is possible, and indeed a responsibility of all educators. Dispositions represent a necessary but not sufficient element of being a socially just educator. Agreeing with the socially-just statements on the LTSJ-B only indicates a dispositional alignment with these beliefs. However, from these foundational beliefs, students in this study are making an important step along the way to becoming socially just educators.

This study's results are exceptional when compared to previous research that has used the LTSJ-B instrument as a pre-test/post-test assessment of the impact of social justice teacher education courses on participants' dispositions. For example, the three social justice teacher education programs reported on in Cochran-Smith et al. (2012) employed similar samples, methods, and measurement instruments as this study, and, like this study found statistically significant gains on students' LTSJ-B post-test scores. Meanwhile, Evans (2013) reported no significant gains in LTSJ-B scores in his evaluation of three teacher cohorts in a social justice mathematics course. However, what is most noteworthy is that, in none of these cases were the effects of the treatment (i.e., course or program) nearly as large as those reported here.

The effect sizes for dispositional gains at the three sites reported in Cochran-Smith et al. (2013) were d=0.16, d=0.11, and d=0.14. Similarly, Evans (2013) reported effect sizes of d=0.00, d=0.25, and d=0.26. Compared to the d=0.93 effect size reported in this study, it is clear this course was exceptionally effective in impacting students' social justice dispositions. This gain in dispositional scores represents nearly one standard deviation in dispositional growth, meaning the dispositions held by students in this course

were clearly and "grossly noticeably" (Cohen, 1988) different than those they expressed before the course began. Comparing these effect sizes, it could be argued that, at least in terms of dispositions, the course in this study had more of an impact on students in one semester than other courses and even entire social justice teacher education programs lasting one and four years. The size of these effects speaks to the strength of the course, instructor, and assignments, and their affordances for impacting social justice beliefs.

Overall Impact on Knowledge

A second major conclusion of this study is the course's impact on students' knowledge. Overall, the course (combining both sections) was successful in improving students' knowledge of social justice in education issues. This is seen in the significant difference between students' pre-test and post-test scores on the short essay assignment. Not only did students demonstrate a significant changes in their overall knowledge of issues related to social justice, they demonstrated a significant change in each of the three items included on the assessment. Similar to shifting students' social justice dispositions, deepening students' social justice knowledge was not an explicit goal of the course. However, students nonetheless showed a significant change in these areas of knowledge because of their participation in the course.

Conceptually, social justice knowledge plays an important part in becoming a socially just educator. Teaching from a critically conscious perspective requires not only an ideological belief in the values of social justice education, but also a knowledge how systems of inequality operate in educational settings. Without this knowledge, beliefs are difficult to put into practice. The short-essay assignment used in this study specifically asked students to demonstrate their knowledge about three areas − how their own past

experience may influence their teaching; how students' past experiences influence their work in the classroom; and of the social, historical, and political context of education that maintain systems of inequality. The fact that students showed, on average, significant gains in each of these areas demonstrates that students in this course are growing in their preparation for being socially just educators. See Future Research section for future directions in researching social justice knowledge.

Two major contributions of this study's quantitative assessment of students' social justice knowledge are to provide evidence that "social justice knowledge" as a variable can be measured and, as a learning outcome, can be changed. Previous theoretical research has argued that there are a number of areas of knowledge social justice educators need to develop; However, very little work has been done to conceptualize "social justice knowledge" as a measurable variable. The work of Howard (2006) was central to this study because it was one of few pieces of research that presented a multi-dimensional view of "social justice knowledge." The three sides of Howard's Achievement Triangle represent the three knowledge domains assessed in this study. However, Howard does not attempt to measure this knowledge overall or in its individual pieces. This study and its results build off that previous work to demonstrate that a multi-dimensional conceptualization of "social justice knowledge" is possible and measurable. See Implications for Researchers for further discussion on future directions in measuring social justice knowledge.

In addition to conceptualizing "social justice knowledge" as a variable, the results of this study provide evidence that students can change in their knowledge of issues related to social justice through participation in teacher education courses. At the

beginning of the semester, students' scores on their social justice knowledge assessment (1.xx out of a possible 5) were notably low. At the end of the semester, students' scores on this assessment were still relatively low (2.xx out of a possible 5). Still, this change represents a statistically significant growth in their knowledge. Learning about issues such as teacher bias, students' lived experiences, and the multiple contexts influencing education is a life-long process. The results of this study argue that social justice teacher education courses can be an integral part of that process.

Lack of Difference Between Sections

Another major conclusion from the results of this study is that there was no significant difference in the dispositional and knowledge growth between the traditional and high technology sections of the course. This lack of impact is seen in the statistically insignificant results of the ANOVA test. This test showed a main effect of pre-test/post-test time on students' disposition and knowledge scores, but no interaction effect of students' placement in either the traditional or high technology section. In other words, what the ANOVA results mean is that the degree of change students in the traditional section demonstrated in their beliefs and knowledge is so similar to the degree of change students in the high technology section demonstrated in these assessments that the two groups are virtually indistinguishable. There are multiple possible explanations for why the change in disposition and knowledge scores were so similar between the groups.

The same road. The first possible explanation is that the two groups were more similar than they were different. The two sections of the course shared a large number of common elements with affordances that might have led to changes in students' dispositions and knowledge. For example, the two courses had in common the course

instructor, the course schedule and readings, similar student make ups, and several class assignments. It is entirely possible that because of this high degree of similarity, the courses were in essence the same road to the same destination. These common elements and their educational affordances may have been what made the most significant impact on students' dispositions and knowledge as compared to the relatively few elements that differentiated the course sections (e.g., the medium used on three specific assignments). Previous research has argued that a number of elements included in the course in this study (e.g., cultural autobiographies, cross-cultural interactions, and reflective journaling) can influence social justice learning outcomes, especially students' dispositions.

Two roads to the same destination. The second possible explanation is that the two courses were in fact quite different from one another. However, these different versions of the course were equally successful in changing students' dispositions and knowledge. Focusing on the three class assignments that used different media between course sections, these assignments constituted a significant portion of students' work in the class. While there were common elements between the two sections, it is also possible that the unique affordances of the traditional and high technology media were equally effective in impacting students' learning in the course. For example, it is possible that for students in the traditional section, writing their critical analysis paper as one continuous single-authored document helped them see the connections between the different parts of their analysis and better understand the multi-dimensional, complex concepts that make up social justice knowledge. Meanwhile, for students in the high-technology section, it is entirely possible that they were able to see similar connections

thanks to feedback from their blogs' readers' comments. Therefore, the courses represent two roads leading to the same dispositional and knowledge change.

Missed opportunities. The third possible explanation for the similarity in the two groups' changes is that the course sections *might* have represented unique paths leading to *possibly* different outcomes, but the medium in the high technology section were not used in a way that differentiated their impact on students' social justice dispositions and knowledge. Qualitative data analysis of student work gave some evidence of students using the unique educational affordances of these technologies in a way that was qualitatively different than comparable student work from the traditional course section. For example, in a blog post analyzing the issue of sexual orientation, one student used a video clip with statistics about the frequency of harassment for LGBT0-Q teens to augment her written explanation. This multimedia channel for demonstrating social justice knowledge was unavailable to students writing traditional papers.

However, while students occasionally used these technologies' unique affordances, a major theme that emerged from qualitative analysis of students' work (and subsequent member checked during follow up interviews) was that of "missed opportunities" wherein the way students used Web 2.0 technologies for class assignments failed to take full advantage of the unique affordances of these technologies. For example, no student used hyperlinks to connect their thoughts across blog posts, an affordance that could have helped them build their social justice knowledge by understanding the interconnectedness of these concepts. In this way, students' work from the high-technology section used essentially the same media (e.g., individually-written text) and cognitive processes available to students in the traditional section. The high

technology section may have had the potential for being a different path to the same or different destinations, but students' technology use did not significantly differentiate their learning nor learning outcomes.

Sample size. The fourth possible explanation for the similarity in the two groups' dispositional and knowledge change is that this study's small sample is vulnerable to sample bias. Each section of the course had 15 students representing a total sample of 30 participants. It is entirely possible that if the sample size for both sections increased, students who might make significant use of the unique affordances in either section could join that section and have a significant impact on that group's average post-test sores.

Implications for Researchers

This study's first major implication for researchers is introducing an approach to operationalizing social justice knowledge and measuring change in that knowledge, an important part of social justice teacher education research that has heretofore been under-examined. Previous research evaluating these kinds of courses has focused primarily on changing students' dispositions. This study builds on previous research while expanding the field to include students' knowledge of how social inequalities affect students, their own teaching, and schools as social institutions as well. This variable should be of particular relevance to social justice teacher education researchers as students in these kinds of courses may experience change in not only their dispositions, but knowledge as well. Without at least first conceptualizing this knowledge as an outcome variable to be studied, previous research has overlooked a possibly already-present learning goal and area of growth.

In addition to conceptualizing this variable, this study introduced an instrument for measuring change in students' social justice knowledge. The contributions to the field of social justice teacher education research made by the short essay assignment are strengthened by the multiple points of validity and reliability included in its development and use. First, the instrument was theoretically-grounded, being based on Howard's (2006) three "dimensions of knowing" for social justice educators. Second, building on this framework, a series of open-ended short essay questions were pilot-tested, refined with input from researchers and educators in the field of social justice education. Third, inter-rater reliability was assessed before measuring "Social Justice Knowledge" as a pre- and post-test variable. Results from this study argue that this knowledge can be changed as a result of students' work in social justice teacher education courses. In all, the introduction of a theoretically-grounded instrument for measuring students' social justice knowledge is a significant implication for advancing the field of social justice teacher education courses.

While this conceptualization and quantitative instrument mark important contributions to the field of research on social justice teacher education, there is still much work to be done. See Limitations section for discussion of ways to improve the reliability and validity of the social justice knowledge short essay assignment and the Future Research section for ideas about what directions future development of this variable and instrument might take.

The second major research implication of this study is in bridging the fields of social justice teacher education research and research on educational technologies, especially Web 2.0 technologies. The intersection of these fields has received some

attention, but remains largely underdeveloped theoretically and empirically (Wassell & Crouch, 2008). This study represents one of many possible connections between the fields, but in doing so, contributes in multiple ways to this intersectional field. First, this study pulls together empirical and theoretical research from both fields to establish the connection that the educational affordances of specific Web 2.0 technologies may applied to the learning outcomes of social justice teacher education courses. This study also introduces empirical evidence that this connection is at least not counter-productive, and preliminary evidence that suggests this connection may demonstrate the educational benefit of teaching with these technologies in general and for social justice education courses specifically. This evidence is limited and would greatly benefit from future testing, but it gives strength to the value of research in this intersectional field.

Implications for Practitioners

The results of this study have implications for social justice educators when considering how to design such courses. Students in this study's course showed significant gains in their social justice dispositions and knowledge likely due to the educational affordances of multiple elements both common and unique to the traditional and high technology sections. A significant takeaway from this study for those designing future social justice teacher education courses is to begin by focusing on educational affordances that previous research and this study have suggested can support dispositional and knowledge growth. For example, previous research has argued that assignments and course elements that foster interaction with people from diverse backgrounds (Freire & Macedo, 1987; Gadotti, 1996; Wiseman, 2001), critical reexamination of one's own history and identity (Brown, 2004; Chizhik & Chizhik, 2005;

Clark & O'Donnell, 1999; Zeicner, 1993), personal reflection of one's own beliefs (Obidah, 2000; Villegas & Lucas, 2002) and challenging but respectful class discussions (Griffin, 1997; Nieto, 1998) can shift students' dispositions towards being more social-justice minded. In this course, those affordances were contained in students service learning fieldwork, their writing cultural autobiographies and their service learning reflection journals. Practitioners aiming to impact students' social justice dispositions should consider incorporating these kinds of course elements for their educational affordances.

In addition to these common elements with educational affordances for social justice learning, practitioners can look to this study's results for suggestions for integrating educational technologies in these courses. Students in the high technology and traditional sections of the course had similar degrees of dispositional and knowledge growth, suggesting there may be multiple ways to design social justice teacher education courses to achieve these learning outcomes. This study's results suggest that social justice teacher educators can replace traditional paper-based assignments with Web 2.0 technologies and produce similar results. The technologies employed in this study included affordances that differentiated them from, as well as affordances that were common to, traditional assignments. Whether it be due to their unique affordances, those in common with traditional medium, or a combination of both, this study gives empirical evidence to course designers that there are alternate ways impact students' dispositions and knowledge, and practitioners should be encouraged to incorporate the media and types of assignments that best fit their students' interests, needs and the resources available.

However, it should be noted that, for practitioners looking to incorporate educational technologies, meaning integration may require a significant redefining of the learning tasks involved and a unique fund of teacher knowledge for this reimaging and technology use. Applying Puentadura's (2014) SAMR model illustrates how practitioners can make the most of a given technologies' affordances. According to Puentadura, high-level educational technology integration represents "Redefining" the learning task at hand, keeping in mind the educational technology's unique affordances. At the same time, thinking through this redefining and carrying out a thorough integration of educational technology may require practitioners to develop their technological pedagogical content knowledge (Mishra & Koehler, 2006). The TPAK framework suggests that it is not sufficient for practitioners simply to know how a technology works (TK), but to synthesize this knowledge with their pedagogical and content areas of knowledge (PCK) that give them an understanding of the learning outcomes of a given course and the cognitive processes in which students can engage in order to reach these outcomes. Keeping in mind these thinking process and learning outcomes, practitioners need formal and informal opportunities to learn about each technology and to synthesize this developing knowledge with their established PCK.

Bringing together the SAMR model and the TPACK framework, practitioners wanting to make the most of any educational technology in their courses need to deeply understand how the technology works, what kinds of thinking it affords and how these affordances fit with the learning outcomes of the course. Then, the practitioner needs to plan (and likely "reimagine") the learning tasks in order to explicitly incorporate these affordances.

Limitations

This study has multiple limitations. First, at the conceptualization stage, one of the variables under study - social justice knowledge - was conceptualized without precedent in empirical research. The conceptualization of social justice knowledge employed in this study was based on Howard's (2006) three "dimensions of knowing" for social justice educators. While based on an existing theoretical framework, these three "dimensions of knowing" have not previously been used to represent "social justice knowledge" as a standalone variable. It is entirely possible that other social justice educators and researchers may conceptualize "social justice knowledge" in an entirely different way. Similarly, the educational affordances analyzed were based on previous research, but had never been conceptualized as they were for this study. Previous studies on individual affordances of blogs, wikis, and video journals were consulted, but very little research has considered these affordances in the context of social justice teacher education courses. As with the conceptualization of "social justice knowledge," other researchers may identify a different set of relevant affordances that might have been used for this study.

Second, at the data collection stage, this study had only 30 participants used for quantitative analysis. Further, only four of those students were sampled for exploratory qualitative data analysis. These four students were purposefully selected because of their excellent work on the Web 2.0 class assignments, but this is still overall a very small sample. Additionally, these students were only sampled from one section of the course, so their work may not be representative of students' in the traditional section within this study or externally of the traditional, paper-based assignments in other similar classes.

Having such a small sample and pulled from one cohort makes the data collection very susceptible to sampling bias. Therefore, the findings based on analysis of this sample should be interpreted and applied with caution.

Third, also at the data collection stage, interviews used for qualitative data analysis were conducted almost three years after the conclusion of the course. This is a significant gap in time between when the students worked on their blog, wiki, and video journal assignments, and when they were asked to reflect on their experiences with the technologies. Prior to and during interviews, students revisited their work to aid in recall. Nonetheless, that students' memories of what using these technologies did and did not do for them in terms of impacting their dispositions and knowledge were almost certainly imprecise and subject to error. Therefore, conclusions based on student interview data must be interpreted with caution.

A final set of limitations of this study comes from the methods used for data analysis. The quantitative coding scale used for evaluating students' answers on the social justice knowledge assignment needs additional checks on its reliability. The scale was co-created by two researchers based on pilot data from a previous iteration of this course and the scoring used for this study done by two researchers was tested for inter-rater reliability. As this was the first time this instrument had been used, additional testing is needed to further establish the scale's inter-rater reliability and the instrument's test-retest validity. Until then, the strength of conclusions about students' social justice knowledge is limited.

The methods used for qualitative data analysis also introduce limitations to this study's findings. First, the qualitative analysis of student work began with a priori codes

derived from previous research. This framing allowed the present study to apply the theoretical and empirical work done in these studies to a new set of learning goals, however doing so may have also limited the breadth of observations and masked potentially informative interpretations and conclusions about students educational technology use in social justice education courses. This study was able to draw some conclusions about students' use of educational affordances described in previous research, but a richer, different set of interpretations may have been omitted. Future research on these technologies' affordances for social justice education may begin with a reimagining of how these technologies could be more dynamically integrated into the course and employ a Grounded Theory approach (Corbin & Strauss, 2007) that would be open to any themes that emerge from an open analysis of student work. (see Future Research section).

Secondly, the qualitative data analysis of students' work using Web 2.0 technologies employed only one coder, the primary researcher and instructor of the course. The findings of themes present in student work represents an individual, biased interpretation of the data. Students' interview data was also consulted to triangulate these interpretations, but nevertheless, these qualitative findings should be interpreted with caution and future research on the use of educational technologies in social justice education courses should employ multiple coders to add to it's credibility and transferability.

Future Research

Three directions for future research would, one, seek to strengthen the weaknesses of the current study, two, reimagine the course to reach possibly different conclusions about the integration of educational technologies, and, three, extend the findings of this

study into new empirical and theoretical work. In regards to the first direction, upon reflection, both the design of the course and the methods used to analyze student work introduce a number of limitations that could be addressed by more rigorous replications of the current study, or parts of it. Beginning at the conceptual level, future research could question, challenge, or support the way "social justice knowledge" in which was conceived and operationally defined. The operationalization of Social Justice Knowledge used in this study may have face validity, as it is based on Howard's (2006) conceptual framework, but other social justice educators may have different conceptualizations of what exactly "social justice knowledge" is and how to measure it. These visions of what this area of knowledge is could and should be presented in future research. Also at the conceptual level, this study selected a set of educational affordances found in previous research on blogs, wikis and video journals as being potentially useful in supporting the kinds of learning and psychological processes in which social justice teacher education students engage. That being said, as with conceptualizing "social justice knowledge," other researchers may identify other process, affordances and/or educational technologies they believe fit with the learning outcomes of these kinds of courses. Future research may seek to replicate and support the choices in technologies and affordances used in this study, or to introduce different choices that may more effectively bring about the dispositional and knowledge changes intended.

Future replications of this study could also address a number of limitations in the data collection and data analysis stages. Specifically, in terms of data collection, future replications could support or refute the initial findings from this study. Further, these subsequent findings could avoid some of the limitations from this study by using a larger

sample overall, and particularly in the qualitative analysis. The data analysis methods used in this study could be improved upon in future research. The validity and reliability of the instrument used to measure students' social justice dispositions (the LTSJ-B) has been established by previous research, but the instrument used to measure students' social justice knowledge was developed for this study and has yet to be rigorously evaluated. Including this instrument in future research would add to its test-retest reliability while further checking the coding scale's inter-rater reliability. Further, the method used for analyzing qualitative data could be strengthened in future research. Only one coder (the primary researcher) reviewed students' work on Web 2.0 class assignments. The researcher did triangulate his interpretations of students' work by also consulting students' answers in follow-up interviews, but the qualitative findings remain largely the interpretation of one individual. This presents one of the most significant limitations in this study and any future replication of all or part of this study should include multiple coders and member checking during qualitative data analysis.

A second direction for future research is to go beyond addressing weaknesses of the present study to begin at the conceptual level to reimagine the integration of education technologies into social justice teacher education courses, A redesign of the course's educational technology use could incorporate the SAMR model (Puentedura, 2014) to possibly to produce different data for analysis and different results for discussion. One of the possible interpretations for the similarity between the dispositional and knowledge changes made by students in the traditional section and high technology sections is that the included technologies were not used in a way that took full advantage of their unique affordances. Applying Puentedura's SAMR model, this use represents

"Substitution," the lowest level of educational technology use. Puentedura argues that, for educational technologies to have the largest impact on students' learning outcomes, instructors should use these tools to significantly "Modify" or "Redefine" the tasks in which students are engaged. For example, in this course, blog writers wrote a series of posts analyzing a current event or media artifact using different class concepts. As assigned, the sequence and structure of these posts exactly replicated (or, to use Puentedura's words "substituted" for) the educational affordances of the papers written in the traditional section. This arrangement did not take advantage of the unique affordances of blogs, such as that readers' comments could inform subsequent posts and that, using hyperlinks, blog-writers could connect their thoughts across several posts. "Modifying" the task in this way may lead to different cognitive process by students, and possibly higher degrees of dispositional and knowledge change than what was observed in the present study. Future research could examine this possibility beginning with reimagining of the course's educational technology integration.

A third direction for future research is to build upon this study's results and implications into new theoretical work - specifically in defining in greater detail what "social justice knowledge" is and the role it plays in educators' practice. This study conceptualized "social justice knowledge" as a single outcome variable of a pre-service teacher course, but future work might more fully define it as a unique fund of knowledge as well as part of a broader kind of knowledge that intersects with an instructor's pedagogical and content areas of knowledge to inform his/her socially-just practice. In other words, this "social justice pedagogical content knowledge" (SJ-PCK) represents a knowledge of how to teach one's subject matter content in a way that raises students'

critical consciousness about systems of inequality, and empowers students to challenge these systems as students and adults.

Defining Social justice pedagogical content knowledge and examining the relationship between these knowledge domains could also contribute to future pedagogical research in social justice education. As with many fields, linking theory to practice is a challenge for social justice educators. For example, many researchers and authors (e.g., Lee & Okazawa-Rey, 1997) describe ways of teaching subject matter content from a socially-just perspective, but fail to address the necessary-but-not-sufficient social justice knowledge needed in order to effectively do so. Examining SJ-PCK may help to better understand the connection between teachers' socially just pedagogical perspectives (e.g., Culturally Relevant Pedagogy) and their actual practice. Future research may better define this knowledge and examine how it can be developed alongside teachers' content and pedagogical knowledge areas..

Conclusion

Overall, the results of this study supported claims made by previous research that social justice teacher education courses can have an impact on students' dispositions and that educational technologies can be integrated into instruction in a way that helps teachers achieve their instructional goals. Quantitative analysis indicated that, due to their common and unique affordances, the high-technology and traditional approaches were equally effective at significantly impacting students' social justice dispositions and knowledge. These results give evidence that, at the very least, using educational technologies such as blogs, wikis and video journals, does not interfere with students' learning in these courses. What is more, qualitative data analysis seems to indicate that

there was some untapped potential in the Web 2.0 technologies; that a redesign of course learning tasks could take fuller advantage of these technologies' affordances for social justice learning, This is a hopeful conclusion and one that can inform future research and practice for these kinds of courses.

This study set out to make a connection between the fields of educational technology and social justice education in order to examine ways in which the affordances of a set of Web 2.0 technologies may help achieve the learning goals of pre-service social justice teacher education courses. Researchers and practitioners often seek to improve the effectiveness of their teaching, in this case, shifting students' dispositions to be more socially just and deepening their knowledge of issues related to systems of inequality as they appear in educational contexts. Meanwhile, the field of educational technology has put forth a number of insights about various applications may foster the kind of cognitive processes required for achieving certain learning goals. Bring together these two fields, this study began with the belief that the educational affordances of blogs, wikis, and video journals - namely that they foster a deep understanding of multifaceted concepts through collaboration and support deeper reflection and connecting ideas through hyperlinking and feedback channels - may be particularly useful for these kinds of courses.

In order to make this connection and draw conclusions about these technologies utility for the field of social justice teacher education, this study drew on existing research, but also had to expand upon that research in multiple ways. First, a key component of this study was moving beyond the traditionally studied learning goals for social justice teacher education courses, i.e., students' dispositions, and into examining

changes in students' foundational understanding about issues of identity and inequality in education. This expansion was seen as important because, in order for teachers to effectively teach from a socially-just pedagogy, they need to not only *believe* in the need to address issues of systemic inequality in their teaching, they must fully understand what those issues are. To measure this change in knowledge, a new instrument was constructed and implemented, with noted limitations.

Second, this study expanded upon previous empirical and theoretical research on the educational affordances of blogs, wikis and video journals by applying those affordances to a new, under-researched context. From an educational psychology perspective, research on these technologies educational affordances has been applied to various content areas, but has largely left unexamined their utility in achieving social justice education learning goals. This study adds additional evidence to the results and insights from previous research on these technologies while transferring those results into a new domain. In all, these two areas of expansion represent significant contributions to the fields informing this research and hopefully strengthen the emerging intersectional field of research on educational technologies for social justice teacher education.

APPENDICES

Appendix A - Foundational Course Information

Course Syllabus

Course Description:
This course introduces prospective teachers to the ways in which social inequality affects schooling and schooling affects social inequality. This course is not a celebration of difference. Rather, this course is designed to allow students to examine how socially constructed categories (e.g., social class, race, gender, sexual orientation, disability, etc.) are used to privilege some individuals and groups and marginalize others. The course focuses mostly on one social institution, public schools in the United States; however, we will examine how other social institutions influence opportunities for success and failure in schools. Central themes of the course include culture, power, and difference. Some key questions this course will explore include:

★In what ways do schools create, perpetuate, and exacerbate inequality?
★How do systems of privilege impact individuals' opportunities for social and economic mobility?
★In what ways do teachers and students jointly produce conditions for successful learning or frustrating failure?
★How do school-community relationships affect student opportunities to learn?
★What does it mean to teach for social justice in schools of all types and levels?

We will identify the ways in which teachers influence the distribution of educational and social opportunities, whether they intend to or not. This means that teachers need to understand how their pedagogy and instructional strategies affect student achievement and life opportunities. We will achieve this goal by questioning the way things are in society and challenging our assumptions, biases, and stereotypes and those of our colleagues.

This course is not a methods course that provides answers for successfully working in diverse classrooms. Rather, it is about how power influences schooling experiences of and opportunities for students. In that way, this course will help you better understand some of the basic social, historical, cultural elements at work in schools today and prepare you for your experiences working with these elements as a teaching intern. This course is a required part of your preparation towards your internship year; further information about the criteria for internship preparation can be found at:
http://education.msu.edu/academics/undergraduate/criteria-for-progression.asp

Required Texts
Course pack (Available at Bookstore, across from the Union)

Grade Breakdown
To compute your final grade, add up the points you earned for each assignment and locate that percentage in the following table. I round up starting with .5% (i.e., a 92.5 is a 4.0, but a 92.4 is a 3.5)

Assignments	
Attendance & Participation	10%
Reading Responses	13%
Schooling/Cultural autobiography	20%
Unit 1 Take Home Exam	11%
Current Event/Media Analysis Paper	15%
Identity Group Paper	15%
Service Learning Journals	6%
Service Learning Paper	10%

GPA Ranges	
100-94%	4.0
93-86%	3.5
85-80%	3.0
79-75%	2.5
74-70%	2.0
69-65%	1.5
64-60%	1.0
<60%	0.0

Assessments

Attendance, Preparation & Participation (10%)

Attendance

To ensure the regular on-time attendance and full participation in class that is critical to learning, I will take attendance at every class session and make note of late arrivals and early leavings. You may miss up to two class sessions without impacting your grade. However, if you a third class session, your grade for this part of course will be lowered by 50% (i.e., from 10% to 5%). Four absences will result in a zero for this part of course. Absences due to illness, family emergencies, funerals, car trouble, etc., will be counted toward the two absence limit. Documentation is not required; however, because you get only two absences, it would be wise to save them for unpredictable circumstances. Absences due to participation in university-approved events (e.g., religious holidays, intercollegiate sports, etc.) will not count toward the absence limit, but do require written documentation of your participation in these activities at the beginning of the semester and arrange to make up any missing work as far in advance of your absence as possible.

In addition, two late arrivals or early departures (more than 10 minutes late or early) will count as one absence. As with full-class absences, documentation for why you arrived late or need to leave early is not necessary, but you should always plan to be in class on time and to stay for the entire period, saving any late arrivals or early departures for emergency situations.

You are required to complete 20 hours at your service learning site (2 hours each week) For absences at your Service Learning sites, you must call your host teacher in advance if you are unable to meet a field visit commitment and you must make up all Service Learning field absences. **If you do not complete all 20 hours of service learning, you cannot pass this course.** In accordance with the Teacher Preparation Program's Professional Conduct Policy, attendance and punctuality in class meetings and field experiences are critical to your success in this course and in the Program. It is your responsibility to familiarize yourself with these policies, available online at: [removed to de-identify] In the case of recurring absences or tardiness, you're the College of Education will be notified and you may be required to attend a meeting regarding your attendance.

Preparation & Participation
Students are expected to thoroughly prepare for and actively participate in class. Thorough preparation includes reviewing reading all required assigned readings for each class, reviewing previous class notes, and possibly doing additional outside reading/research. Active participation includes reading the assigned reading BEFORE attending class, bringing the readings to class, taking notes, being attentive, participating in class discussions and listening to comments raised by others.

Students will be assessed on their preparation and participation based on the frequency, quality, and clarity of their contributions in class discussions and activities. Throughout the semester I will monitor each student's participation, and provide feedback to them to suggest, if needed what adjustments in preparation for and participation in class may be needed. If students continue to participate very during class, points may be deducted from the final grade for this part of the course.

As a final note about participation, I encourage active discussions in an atmosphere that allows everyone to talk comfortably. There are no right or wrong questions or comments, but offensive comments directed at groups or individuals will not be tolerated. We recognize that this is a learning community, so you may ask about issues you do not understand, but please be considerate when framing your questions. If you are uncomfortable with the classroom dynamics, you should feel free to say so in class or talk with me during office hours.

Reading Responses 13%

In preparation for each class period, you will be required to post a brief response to the readings. At the end of most classes, I will provide a set of questions to guide your reading of the homework articles. As you read, keep these questions in mind and make notes as you craft an answer to them. Prior to each class, you will need to post your response to these questions in a private "Reading Responses" forum in Angel. Each response should be about 250 words and will only be viewable by the author (you) and me. In your response, do not spend much time summarizing the article; you can assume your audience has read the articles as well. Your response posting is due by 10am the morning of each class period, but I HIGHLY recommend finishing your readings as early as possible and posting your responses at least by the night before. The Angel Reading Response forum will automatically lock at 10am and no additional postings will be accepted.

Schooling/Cultural Autobiography (20%)
Understanding how your personal and schooling experiences have shaped your own assumptions about teaching and learning is essential to the aims of the course. To help you examine these experiences analytically, you will compose an autobiography in two parts in which you reflect on your own identity and the ways in which identity markers (such as social class, race, ethnicity, language, ability, gender, sexual orientation, etc.) informed your schooling experiences. Consider in your essay what your schooling experiences might have taught you about your own identity.

Unit 1 Take Home Exam (11%)
At the end of Unit 1, you will be given a paper exam to complete before the next class session (2 days). This exam will assess the depth and accuracy of your understanding of key concepts from the first part of this course. Questions on this exam will be in the form of multiple choice, matching, short answer and essay. The exam is "open book;" meaning students will be allowed to use their notes to help them answer questions, however, questions will require more than simple recall/recognition of terms and concepts from the readings and instead will ask students to interpret, analyze and apply those terms and concepts in their own thinking.

Current Event/Media Analysis Paper (15%)
For this assignment, students will write a critical analysis paper (7-9 double spaced pages in length) regarding topics addressed in the course. Critical reflection papers are responses to questions about class concepts as they are expressed in current events, different forms of media, and/or popular culture. This paper should demonstrate your understanding of assigned readings and should draw on class discussions, videos and activities to analyze an outside-of-class phenomenon. In general, your writing is evaluated on the thoughtfulness of your ideas, articulation of your argument, and clarity of writing.

Identity Marker Group Paper (15%)
At the end of Unit 1, students will join groups based on a specific identity marker they are interested in. Over the course of the semester, students will work individually and with their groups to write a critical analysis group paper about multiple aspects of social positioning such as privilege, oppression, dominant & non-dominant groups and intersectionality, as they relate to a single identity marker. Each student will be responsible for about 3 double spaced pages of the entire paper which will be 10-12 double spaced pages. The paper is due at the end of the semester and should flow as one document to demonstrate the groups' collective understanding of social positioning and identity markers by drawing on assigned readings, and possibly additional sources.

Service learning (16%)
Service Learning Journals (6%)
You will submit 6 service learning journals in which you reflect critically on a specific situation/experience you are having through the lens of the course readings. The entries should be about 2 pages double spaced. Only 1 journal per week is allowed, so you need to post a single journal entry, by 9pm on the Friday of that week, 6 times over the course of the semester.

One purpose of the journals is to help you write a strong final paper. So, for each journal entry, I suggest you try to include the following, focusing on Interpretation and Insights:
1) Description: Briefly describe what happened at your placement in as much detail as possible.
2) Interpretation: Comment on what happened—this can include your thoughts and personal reactions/feelings, what you learned, why you think certain things happened, etc.

3) Insights: Connect your interpretations to larger ideas, readings class discussions. Is something you experienced in your placement a possible example of something we read about in class?

Service Learning Final Paper (10%)
At the end of the semester, you will reflect on the whole of your experience at your placement school. This reflection should build on and go beyond the descriptions, interpretations and insights you wrote about in previous journal entries to discuss aspects of social power and identity as they appeared at your service learning site, as well as offer a critical reflection on how your thinking about these issues has changed over the course of the semester.

Submission instructions and Late Assignments:
Students are expected to meet writing deadlines. Any work submitted after its due date will be considered late. Late papers will be reduced by 20% for the first day of lateness and an additional 20% for any time later, except in extreme cases. If you are having trouble meeting a deadline, PLEASE communicate with me in advance, alternative options can often be made. Most written class assignments (papers and online reading responses) will be submitted on the course CMS site. Please note the dropboxes and discussion forums for these assignments WILL CLOSE AUTOMATICALLY at the posted deadline. Late papers must be emailed directly to me and no late discussion postings will be accepted.

Class Schedule
The following list of questions will be helpful to keep in mind as you read each reading.
- What are the key ideas or concepts that the readings present?
- What does the reading have to do with particular aspects of diversity, power, opportunity?
- What argument is the author(s) trying to make? Where do you agree/disagree? Why?
- In what ways is the argument persuasive or not to you? Why?
- What do you think the author failed to consider about the issue? Why? Why not?
- What strikes you as particularly interesting, surprising, insightful, irritating, etc.?

This course schedule is a guide and is subject to change. Any such changes will be announced in class or through email. If you miss a class, it is your responsibility to clarify if there have been any changes to the reading assignments for the following day.

Date	Topic	Come to class having read…
Unit 1 – Systems of Opportunity, Privilege & Oppression		
Wed. Aug. 31st	•Course Intro	
Mon. Sep. 5th	**•No Class – Labor Day**	
Wed. Sep. 7th	•Purposes of Schooling •Service Learning intro •Norms & Learning	•Freire – Ch 2, Pedagogy of the Oppressed
Mon. Sep.	•Purposes of Schooling	•Labaree – The American (High) School

12th		has Failed its Missions •Hocschild & Scovronick – What Americans Want from Public Schools
Wed. Sep. 14th	•Identity	•Tatum – The Complexity of Identity
Mon. Sep. 19th	•Cycle of Socialization •Social Construction of Normality & Difference	•Harro – The Cycle of Socialization •Watch "Mickey Mouse Monopoly" (online) •Christensen – Unlearning the myths that Bind us
Wed. Sep. 21st	•Privilege	•Johnson – Privilege, Oppression & Difference •Johnson – How Systems of Privilege Work •Wildman & Davis – Language & Silence (optional)
Thurs. Sep 22nd	**•Cultural Autobiography part 1 due by 9pm**	
Mon. Sep 26th	•Forms of Oppression & Discrimination	•Pincus – Discrimination Comes in Many Forms •Young – Five Faces of Oppression
Wed. Sep. 28th	•Theories of Academic Success & Failure	•Nieto – Toward an Understanding of School Achievement •Langston – Tired of Playing Monopoly? •Sleeter & Grant – Race, Class, Gender, and Abandoned Dreams (optional)
Thur. Sep. 29th	**•Pick identity groups (Angel)**	
Unit 2 - Issues of Identity in Education		
Mon. Oct. 3rd	•Revisit Norms & Learning •Gender: Overview	•Lorber – Night to his Day **•Take home exam assigned at end of class**
Wed. Oct. 5th	•Gender: Bias & Discrimination	•Sadker & Zittleman– Gender Bias **•Take home exam due at beginning of class**
Mon. Oct. 10th	•Gender: Body Image	•Watch "Killing us Softly 4" (online) •Pope, Phillips & Olivardia - The Adonis Complex
Wed. Oct. 12th	•Sexual Orientation: Overview & Culture of schools	•Friend – Heterosexism, Homophobia & the Culture of Schooling
Mon. Oct. 17th	•Sexual Orientation: Homophobia & Inclusion	•Blumenfeld – How Homophobia Hurts Everyone •Mayo – Queer Lessons: Sexual & Gender Minorities in Multicultural Education

Wed. Oct. 19th	•Race: Overview	•Tatum – Defining Racism •Tenorio – Race and Respect Among Young Children •Takaki – A Different Mirror (angel, optional)
Mon. Oct. 24th	•Race: History of Racism in the U.S. •Race: Educational Experiences of People of Color	•Minter & Prettyman – "Education" from the EoAAC&H •Wingfield & Karaman – Arab Stereotypes and American Education •San Miguel – Contested Learning: Latino Education in the US •Spring – Asian Americans: Exclusion & Segregation •Klug & Whitfield – A Brief History of American Indian Education
Wed. Oct. 26th	•Race: White Privilege	•McIntosh – White Privilege •Olson – White Privilege in Schools •Howard – Ch 3 Decoding the Dominance Paradigm
Mon. Oct. 31st	•Race: Wrap up	•Howard – Ch 7 White Teachers & School Reform •Edgington – Moving Beyond White Guilt (optional)
Wed. Nov. 2nd	•Language: Overview of Immersion, ESL & Bilingual Education	•Nieto – Linguistic Diversity in the US Classroom •Stritikus & Varghese – Language Diversity and Schooling
Mon. Nov. 7th	•Language: Linguicism & Discrimination	•Hays – To Track or Not to Track •Cummins – The Two Faces of Language Proficiency
Wed. Nov. 9th	•Language: Linguicism & Discrimination Continued	•Watch "Do You Speak American?" clips (online) •Artiles et al. – ELL Representation in SPED in California Urban School Districts (Angel)
Mon. Nov. 14th	•Social Class: Equity & Opportunity	•Re-read Langston – Tired of Playing Monopoly? •Hodges-Persell - Social Class & Ed Equality •Anyon – Social Class and School Knowledge •Nocera – How the Middle Class has Helped Ruin Public Schools (optional)
Wed. Nov. 16th	•Social Class: Social/Cultural Capital	•Lareau – Why Does Social Class Influence Parent Involvement in Schooling?

		•Carter – "Black" Cultural Capital
Thur. Nov. 17th	**•Current Event/Media Analysis due by 9pm**	
Mon. Nov. 21st	•Ability (physical) •Special Education	•Smart – Experiencing Prejudice & Discrimination
Wed. Nov. 23rd	•Ability (mental & cognitive) •Special Education	•Wikipedia – Learning Disability (Intro, Types & Diagnosis) •Harry & Klingner – Constructing Learning Disabilities •Harry & Klingner – Constructing Behavior Disorders •Siegel – IQ-Discrepancy Definitions and the Diagnosis of LD
Mon. Nov. 28th	•Special Education: Overview	•Bicard & Heward – Educational Equality for Students with Disabilities •McNeal & O'Rourke – Legal Foundations of Special Education
Wed. Nov. 30th	•Special Education: Issues & Challenges	•Losen & Orfield – Racial Inequality in Special Education •Smith, Salend & Ryan – Watch Your Language •Meyer, Bevan-Brown, Harry & Sapon-Shevin – School Inclusion and Multicultural Issues in Special Education
Unit 3 - Beyond the Current & Present		
Mon. Dec. 5th	•School Funding	•Biddle & Berliner – Unequal School Funding in the US •Rothstein – Where has all the Money Gone? •Arsen et al – Adequacy, Equity & Capital Spending in Michigan Schools (optional, Angel)
Wed. Dec. 7th	•Moving Forward	•McClintock – How to Interrupt Oppressive Behavior •BHH reading of your choice (angel)
Thurs., Dec 8th	**•Cultural Autobiography part 2 due by 9pm**	
Thur. Dec. 15th *10am-12:00pm in our classroom*	•Course Wrapup: Identity group presentations & Feedback	**•Identity group papers due** **•Service Learning Final Paper due**

Core Course Concepts

Derived from official course instructors' framework.

Concept	Examples/ Explanation	Associated Authors/ Theories
Aspects of Social Power		
Purposes of schools	Social mobility; democratic citizenship; social efficiency	Labaree
Social construction of identity markers	"sex" vs "gender"	Harro's Cycle of Socialization
Social construction of normality & difference	Dominant and subordinate groups; "othering"	Tatum & Harro
Intersectionality of identity markers	Intersection of race and gender	Tatum
Privilege	Unearned advantages, conferred dominance	Johnson, Wildman & Davis
Forms of discrimination & oppression	Individual, institutional & structural discrimination (especially teacher expectations and tracking); violence, marginalization, cultural imperialism, powerlessness, exploitation	Pincus & Young
Theories of academic success & failure	Meritocracy; deficit theories; resistance theories, Social reproduction theory	Nieto
School funding	Property tax structures and other sources of school funding; inequality in school funding	Berliner & Biddle; Rothstein
Socially Constructed Identity Markers		
Gender	Sexism; gender roles and responsibilities	Sadker & Zittleman; Lorber; Pope
Sexual Orientation	Heterosexism and homophobia; violence and harassment of LGBTQ students in schools	Kimmel; Friend; Blumfeld
Race	Biological vs. social explanations of race; historical and current racism in U.S. and public schools; the Achievement Gap between white students and students of color	Takaki; Tatum
Language	Linguicism; school practices for educating English Language Learners; African American Vernacular English	Nieto; Krashen; Cummins; Hayes
Social Class	SES and group affinity; classism; roles of schools in social reproduction theory	Anyon; Hodges-Persell; Lareau
Ability (physical & cognitive)	Social construction of ability/disability; Abelism; diagnosis and education of students with cognitive and learning impairments	Smart; Heward & Cavanaugh; Harry & Klingner

Course Beliefs and Knowledge Learning Goals

Derived from official course framework for instructors document

B1	Identity markers are largely, if not entirely, socially constructed
B2	Social power, discrimination and privilege is real in society (debunking myth of meritocracy)
B3	Belief in bias (one's own & others)
B4	Schools & teachers have historically, and continue to operate in a way that perpetuates inequality
B5	Schools in all areas & teachers in all subjects should be change agents for students and society by incorporating multicultural curriculum and making issues of inequality explicit in their work

K1	Critical knowledge of self; personal biases, past experiences as shaping beliefs; knowledge of own beliefs & assumptions; knowledge of own identity markers; knowledge of how these influence their own educational experiences
K2	Critical knowledge of students; knowledge of their cultures and identity markers; how these influence their educational experiences
K3	Critical knowledge of current and historical political and social contexts of education

Appendix B - Detail of Sources for Data Collection

Learning to Teach for Social Justice—Beliefs scale

Respond to the following statements regarding your beliefs about teaching

1	An important part of learning to be a teacher is examining one's own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation
2	Issues related to racism and inequity should be openly discussed in the classroom.
3R	For the most part, covering multicultural topics is only relevant to certain subject areas, such as social studies and literature.
4	Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.
5R	The most important goal in working with immigrant children and English language learners is that they assimilate into American society.
6R	It's reasonable for teachers to have lower classroom expectations for students who don't speak English as their first language.
7	Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.
8	Teachers should teach students to think critically about government positions and actions.
9R	Economically disadvantaged students have more to gain in schools because they bring less into the classroom.
10R	Although teachers have to appreciate diversity, it's not their job to change society.
11R	Whether students succeed in school depends primarily on how hard they work.
12R	Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.
[a] Likert response categories: Strongly Disagree=1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5	
[b] R: denotes the categories were reverse scored.	

Social Justice Knowledge Short Essay Assignment

On your own paper, answer each of the first three questions as fully as you can. Set a time limit of 30 minutes to answer all three questions.

1) How will your own personal past experiences, beliefs and perspectives influence your work as a teacher?

2) How will your students' past experiences, beliefs and perspectives influence them in your class?

3) What are some social, historical and political contexts that have shaped the evolution of American public schools? How are these contexts still influencing how schools operate today?

During pilot study; a 4th question was added:
4) Give me some feedback on these questions… What was it like for you to answer these questions? Are they clear? Confusing? How long did you take to answer each one? How well did what you learned in TE250 last semester help you in answering these questions?

Short Essay Assignment – SJ Knowledge Scale

Questions

1) How will your own personal past experiences, beliefs and perspectives influence your work as a teacher?

Sub-Domain/Score	**N/A**	**1**	**2**	**3**	**4**
Degree of emphasis on cultural knowledge		Tangible is the sole focus. No (limited) reference to cultural knowledge.	Most of the focus is on the tangible. There is little focus on the cultural knowledge.	Most of the focus is on the cultural. There is little focus on the tangible.	Tangible is only relevant as it relates to the cultural.
Awareness of mutability of beliefs		Little awareness of mutability of beliefs and no examples.	Vague awareness of mutability of beliefs with no examples.	Basic awareness of mutability of beliefs with vague examples.	Deep awareness of mutability of beliefs with potentially specific examples.
Awareness that their past experience is unique and limited to them.		Little awareness of limited perspective with no examples.	Vague awareness of limited perspective with no examples.	Basic awareness of limited perspective with vague examples.	Deep awareness of limited perspective with potentially specific examples.
Understanding of the connection of past experiences to current beliefs		Little understanding of the connection, with no vocab. and no examples.	Vague understanding of the connection with no vocab and no examples.	Basic understanding of the connection with use of empty vocab and vague examples.	Deep understanding of the connection with vocabulary used specifically and

					meaningfully with specific examples.
Understanding of the connection of current experiences and beliefs to future beliefs and practices		Little understandi ng of the connection with no v and no examples.	Vague understanding of the connection with no vocab and no examples.	Basic understanding of the connection with the use of vocabulary and vague examples.	Deep understandin g of the connection with vocabulary used specifically and meaningfully with specific examples.

2) How will your students' past experiences, beliefs and perspectives influence them in your class?

Sub-Domain/Score	**N/A**	**1**	**2**	**3**	**4**
Degree of emphasis on cultural knowledge		Tangible is the sole focus. No (limited) reference to cultural knowledge.	Most of the focus is on the tangible. There is little focus on the cultural knowledge.	Most of the focus is on the cultural. There is little focus on the tangible.	Tangible is only relevant as it relates to the cultural.
Awareness of mutability of beliefs		Little awareness of mutability of beliefs and no examples.	Vague awareness of mutability of beliefs with no examples.	Basic awareness of mutability of beliefs with vague examples.	Deep awareness of mutability of beliefs with potentially specific examples.
Awareness that students' past experience is unique and limited to each of them.		Little awareness of limited perspective with no examples.	Vague awareness of limited perspective with no examples.	Basic awareness of limited perspective with vague examples.	Deep awareness of limited perspective with potentially specific examples.

Understanding of the connection of past experiences to current beliefs	Little understanding of the connection, with no vocab. and no examples.	Vague understanding of the connection with no vocab and no examples.	Basic understanding of the connection with use of empty vocab and vague examples.	Deep understanding of the connection with vocabulary used specifically and meaningfully with specific examples.

3) What are some social, historical and political contexts that have shaped the evolution of American public schools? How are these contexts still influencing how schools operate today?

Sub-Domain/Score	**N/A**	**1**	**2**	**3**	**4**
Degree of emphasis on social justice-minded contexts		Neutral is the sole focus. No (limited) reference to social justice-minded contexts	Most of the focus is on the neutral. There is little focus on social justice-minded contexts. May mention diversity, but not in a socially-just, critically conscious way	Most of the focus is on social justice-minded contexts. There is little focus on neutral contexts.	Neutral is only relevant as it relates to the social justice-minded contexts.
Number of contexts considered		1 context considered	2 contexts considered	3 contexts considered	4 or more contexts considered
Depth of understanding of the influence contexts <u>have had</u> on schools		Little understanding of the influence, with no vocabulary and no examples	Vague understanding of the influence with no vocabulary and no examples	Basic understanding of the influence with use of empty vocabulary and vague examples	Deep understanding of the influence with vocabulary used specifically and meaningfully with specific examples
Depth of understanding of the influence contexts <u>still have</u> on schools		Little understanding of the influence, with no vocabulary and no examples	Vague understanding of the influence with no vocabulary and no examples	Basic understanding of the influence with use of empty vocabulary and vague examples	Deep understanding of the influence with vocabulary used specifically and meaningfully with specific examples

Short Essay Assignment − SJ Knowledge Scale Sample Answers

Question 1 - How will your own personal past experiences, beliefs and perspectives influence your work as a teacher? (*Sub-domains: 1) Degree of emphasis on cultural knowledge, 2) Awareness of mutability of beliefs, 3) Awareness that their past experience is unique and limited to them, 4) Understanding of the connection of past experiences to current beliefs, 5) Understanding of the connection of current experiences and beliefs to future beliefs and practices.)*

Score: 1 (1,1,1,1,1)
"My past experiences will play a huge role in how I plan to operate as a teacher. Over the years, I have had a few teachers that have changed my life forever. I will incorporate things I remember from those classrooms into mine, with the hope to instill the same passion in school in my students as my teachers did in me. I have also had teachers that have changed how I view school in a negative way. Because I've been through this, I plan to teach differently than they did. My knowledge on good and bad teachers from my past will guide me as I create a teaching style of my own. My beliefs and perspectives will also be powerful while shaping who I am as a teacher. I believe that learning can be fun, and that every child can learn. I will push that belief into my classroom so hopefully my students will feel the same way. - SN1 Pre-test

Score 1.6 (1.59 was pre-test question 1 mean) (2, 1, 2, 2, 1)
"Growing up, I have always been good at school. I developed efficient studying tactics early on. I believe this and my passion for what I am looking into teaching (science) could help make me an excellent teacher. Other than that, my experiences at high school will also influence my work. [My high school] had many good teachers that left an impression. I had one world history teacher who only lectured, but he enjoyed what he was talking about so much that his students paid attention all hours. … These teachers showed me that there are many effective ways to explain a topic to your class and that the more passionate and honest you are, the better. Secondly, this class deals with diversity in classrooms. Being open to many different types of people - race, gender, religion, sexuality is something that was instilled in me by my family from a young age. I think openness is the first step to any functioning classroom." − SR1 Pre-test

Score 2.4 (2.2 was post-test question 1 mean) (3,2,2,2,3)
"I will treat my ESL students with the same amount of respect and understanding as I received in my German school. Certain things teachers did were wonderful, like treating me with respect and treating me as if I was a German student, and grading me as one, too, but with a bit more help in comprehension. I will examine my own thoughts and actions more in the classroom. Asking myself, "Why do I feel this way and is it right? Am I doing this because of old stereotypes and beliefs?" I will also try to bring into my lesson more multicultural ideas and activities." − AB1 Post-test

Score 3.6 (highest across all sections) (4,4,4,3,3)
"I grew up in a conservative household that was very careful with money and very open about ideas on earning what you receive. For a long time, this was my understanding of

economics and society, not paying any attention to where people come from and what they're given. Now I see both sides, and sitting atop the fence shows a lot more than you could see on one side or the other. My goal is to have an equal opportunity classroom where a rating on merit can be perceived through a lens of cultural acceptance and understanding." −JM1 Post-test

Question 2 - How will your students' past experiences, beliefs and perspectives influence them in your class? *(Sub-domains: 1) Degree of emphasis on cultural knowledge, 2) Awareness of mutability of beliefs, 3) Awareness that students' past experience is unique and limited to each of them., 4) Understanding of the connection of past experiences to current beliefs)*

Score: 1 (1,1,1,1,1)
"My students' past experiences, beliefs, and perspectives will influence my class in many different ways that could be considered challenging. But when I do encounter these situations I will e ready for the challenge. I will try my best to be a neutral teacher and will not take sides. I will not attempt to change their minds because I feel as if that is the students' decision. But I will discuss with them my past experiences, beliefs, and perspectives. I believe that informing students about the things stated above will help make them form an opinion as an individual." −JC1 Pre-test

Score: 1.75 (1.66 was pre-test question 2 mean) (1,1,3,2)
"I believe that if a student has a bad attitude in class or perceive that the class is going to be uninteresting, he will not succeed in the classroom without vigorous effort. Also, if the student has experienced a poor teacher in the past, he will project those memories of a bad teacher on to me and fail to respect the class or take it seriously. However, if a student has had good experiences and comes into the room with a positive attitude and believe that he or she can succeed in the classroom, they are much more likely to achieve and score on the material." −PB2 Pre-test

Score: 2 (1.96 was post-test question 2 mean) (1,1,4,2)
"My students' past experiences, beliefs and perspectives will greatly influence them in my classroom. If students have had bad experiences they may be more inclined to act up or not try as hard in class as students that have had good academic experiences. Their experiences may also contribute to how much they are comfortable in doing in class such as speaking out in class or answering questions out loud. If a student believes that they must receive an education and that it is important to them or their families, they may be inclined to put in more effort without my encouragement then if a student does not see the value of an education. Also, students may act differently if they believe they cannot succeed in school versus if they think they can. Or, if the option of college is an economically viable one, students may try harder because they believe they can go farther in school. If students have beliefs or experiences that oppose the way I am conducting my class, they may call me out on that idea or act up or dismiss things that I have to teach them because the do not respect my way of teaching." − KR2 Post-test

Score: 2.75 (highest across all sections) (4,1,3,3)
"How students view their position in the school influences how they're educated. if a student ahs felt oppressed, they are more likely to do poorly in the educational system because it works against them, understandably. It is unfair to expect the same results from students treated unfairly. the teacher has to make an effort to try and treat students equally, because of this." −WG1 Post-test

Question 3 - What are some social, historical and political contexts that have shaped the evolution of American public schools? How are these contexts still influencing how schools operate today? *(Sub-domains: 1) Degree of emphasis on social justice-minded contexts, 2) Number of contexts considered, 3) Depth of understanding of the influence contexts have had on schools, 4) Depth of understanding of the influence contexts still have on schools)*

Score 1: (1,1,1,1)
"Schools are very different in different areas for starters. Some schools were very tough on their students about education and still are today. Others schools don't push for anything, so either the student gets it or they don't. I find both methods to be flawed. If teachers were to make learning interesting but still make sure they keep order then everybody comes out winners. We can't change the learning process without changing ourselves." − JD2 Pre-test

Score: 2.25 (2.19 was pre-test question 3 mean) (4,1,3,1)
"The evolution of the American public school goes back a very long time, all the way back to social dividers like segregation and the infection of racism in the public school. One major change in the public school system happened when schools were desegregated. National Guard troops had to escort children into a Birmingham school to keep them from being lynched. Racism in schools is not so prevalent today, but still exists, especially in the South. Many political acts, such as desegregation of schools and the Civil Rights Act helped bring us to where we are today." −JV1 Pre-test

Score: 2.5 (2.43 was post-test question 3 mean) (4,2,2,2)
"Many social, historical, and political contexts have shaped the evolution of American public schools, specifically, when schools were segregated by race. Schools are obviously still not separated by law, but in "all colors" schools, children still tend to socialize together. I believe that this was somewhat influenced by early segregation. There has also been plenty of cases having to deal with the inequality of education (Brown vs. Board of Education) that have created more equality in public schools, yet there is still major unequal education still occurring. this unequal education has to deal with a lot of funding done by the state and local property taxes." −JC1 Post-test

Score: 4 (highest across all sections) (4,4,4,4)
"When educational foundations were first established in the U.S. it was to benefit elite white men, thus schools were funded by local tax. Today, this factor greatly influences the quality of education in poor and richer neighborhoods. After Brown vs. Board of Education, schools ceased to be segregated. today, stereotypes about race are still

prevalent in actions toward minority race students, who are overrepresented in some schools. Recently, it has increased in social acceptability and expression to be homosexual or bisexual. While some students suffer silently and others broadly boast, actions taken by schools vary in location. Some state laws prohibit discussion on minority sexuality and others claim classrooms are a "homophobic free zone." In the 90's, the U.S. government passed regulations for special education, ensuring that they received a chance at "equal education." Some students have been correctly diagnoses, over diagnosed (younger boys) and under diagnosed (young women). −EB1 Post-test

Qualitative Data Sources

Sample Service Learning Journal Prompts

Week 3 (week of 10/10): Last week and this week we're studying gender as a social construction. What are some ways you see students (and teachers) "doing gender" by acting out cultural norms for their gender? Do you see any evidence of gender bias in the teaching or curriculum (refer back to examples from Sadker & Zittleman for help)?

Week 4 (week of 10/17): We've been focusing on sexual orientation in class. A major point about this identity marker is how homophobia and heterosexism are a fundamental part of schools. Do you see any evidence of that in your classroom? Are their any homophobic actions or words used? Do the students or teacher act/talk as if everybody is heterosexual?

Week 8 (week of 11/14): In class, we've been talking & reading about Social Class, or SES. Do you see any difference in how students of different economic levels at your site might experience the same school/class differently? Do you see any differences between this school/site and schools/sites that are largely made up of people of a different economic levels? If not, why do you think so? If so, how might these be forms of individual, institutional and/or structural classism?

Week 9 (week of 11/21):Do you see any evidence of the forms of prejudice & discrimination Smart described in her article? If not, describe how you think this school has avoided these types of behaviors & actions. If so, describe these behaviors/actions and how you avoid them in your own school/class.

Critical analysis Paper Assignment Instructions and Rubric

★Overview

Issues of identity, power, privilege and opportunity are all around us. In the current media, technological, social, political, religious, familial worlds, aspects of people's and groups' identity are being played out daily. The way these identity markers are expressed and interact with one another often has relevance to larger social functions such as privilege, oppression, discrimination and opportunity. In this paper, you will take a current event or a media artifact and critically analyze it through the lens of core class concepts. The purpose of this paper is to <u>demonstrate your understanding of these class</u>

concepts as well as your ability to apply them in a real world setting by analyzing some phenomenon.

★Organization

This paper will contain three parts. First, begin with a brief introduction that summarizes the current event/media artifact that you will be discussing. I won't be explicitly grading this part of your paper, so do not spend too much time on it.

Second, discuss your current event/media artifact through the lens of 2 identity markers. This section should include a brief explanation (1-2 sentences) of what "identity" means as well as a brief explanation of each identity marker you apply. Major identity markers you might refer to are: gender, sexual orientation, race, language, social class* and disability*. At the end of this section, discuss how the intersection of each of these identity markers is relevant for your specific event/artifact.

Third, critically analyze your event/artifact through the lens of 3 class concepts about social power. Major class concepts in this area that you might refer to are: the Purposes of school, Cycle of Socialization, social construction of normality and difference, forms of privilege, forms of oppression, & forms of discrimination. Again, begin with a brief explanation of your terms before you start your analysis.

Finally, end your paper with a brief discussion of how you might apply this critical analysis with students in your future classroom. I am not expecting a fully articulated lesson plan or even for your ideas to be necessarily realistic, but be as specific as possible. Think about your students' age and the potential connections between this event/artifact and the subject you might teach. You may focus on ways you would use this analysis in class or outside of class.

★Grading Criteria

The paper is worth 15 points total, but will be graded out of 45 points. This 45 points comes from 9 grading criteria that I will assess on a 0-5 scale (NG, Poor, Acceptable, Good, Very Good, Excellent) The grading criteria are:

—Identity (20 points)
- Explanation of "identity" and 2 "identity markers"
- Analysis through first identity marker
- Analysis through second identity marker
- Analysis of intersectionality of identity markers

—Social Aspects (20 points)
- Explanation of each social aspects
- Analysis through first social aspect
- Analysis through second social aspect
- Analysis through third aspect

—Conclusion (5 points)
- Future application in your classroom

An "excellent" explanation includes the use of accurate citations from class readings, concise interpretations of those citations and strong, illustrative examples from personal experience or from outside the class.

An "excellent" analysis includes a clear and accurate understanding of class concepts, accurate and insightful connections to class concepts through references to the class readings, discussions, videos and activities.

An "excellent" application includes insightful and creative ideas that are specific to your future teaching situation.

★Data sources
Your paper should draw on evidence from, and your arguments should be supported by, data and ideas from a variety (5-10 total) of sources. When citing these sources, be sure to use APA style citations both in text (e.g., Pincus, 2000, p. 33) and in a collected works cited at the end of the paper. Sources from which to support your thinking and arguments include:

Readings from class (at least 5)
Outside readings (academic articles/books as well as popular, but reputable books, newspapers, magazines & their online equivalents)
Class discussions & class activities
Service learning experience
Interviews & observations with interesting/relevant teachers and students
Personal experience as a student, teacher, tutor, etc

Please double check the syllabus for formatting requirements, additional writing guidelines and information on academic honesty and late assignments.

Identity	Score	Comments
Explanation of "identity" and 2 "identity markers"	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through first identity marker	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through second identity marker	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Analysis of intersectionality of identity markers	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Social Aspects	**Score**	**Comments**
Explanation of each social aspect	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through first social aspect	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through second social aspect	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Conclusion	**Score**	**Comments**
Future application in your classroom	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Critical analysis Blog Assignment Instructions and Rubric

★Overview

Issues of identity, power, privilege and opportunity are all around us. In the current media, technological, social, political, religious, familial worlds, aspects of people's and groups' identity are being played out daily. The way these identity markers are expressed and interact with one another often has relevance to larger social functions such as privilege, oppression, discrimination and opportunity. In this assignment, you will take a current event or a media artifact and critically analyze it through the lens of core class concepts. The purpose of this assignment is to demonstrate your understanding of these class concepts as well as your ability to apply them in a real world setting by analyzing some phenomenon.

★Organization

Your analysis will take the form of a series of eight blog posts over the span of several weeks. In general, your posts will contain three sections. Your first post will be a

brief introduction that introduces the current event/media artifact that you will be discussing and previews the ways in which you will be analyzing it.

In the second section, you will discuss your current event/media artifact through the lens of 2 identity markers. Each post should include a brief explanation (1-2 sentences) of the identity marker you are applying. Major identity markers you might refer to are: gender, sexual orientation, race, language, social class* and disability*. At the end of this section, discuss how the intersection of each of these identity markers is relevant for your specific event/artifact.

In the third section, you will critically analyze your event/artifact through the lens of 2 class concepts about social power. Major class concepts in this area that you might refer to are: the Purposes of school, Cycle of Socialization, social construction of normality and difference, forms of privilege, forms of oppression, & forms of discrimination. Again, in each post, begin with a brief explanation of your terms before you start your analysis.

Finally, end your blog with a two part conclusion. Discuss how you might apply this critical analysis with students in your future classroom. I am not expecting a fully articulated lesson plan or even for your ideas to be necessarily realistic, but be as specific as possible. Think about your students' age and the potential connections between this event/artifact and the subject you might teach. You may focus on ways you would use this analysis in class or outside of class. End you conclusion by revisiting your personal beliefs on the topic and reflecting on how your thinking about this topic and these class concepts may have changed over the course of writing your blog posts.

In addition to writing your own blog, each week you will "follow" two other students' blogs and leave brief comments to their posts. These comments should be about 2-3 meaningful sentences long. Meaningful sentences do things such as: challenge the author's ideas, suggest additional ways of making their argument, and support or extend the author's argument with additional evidence.

Post 1 – Introduction & Preview
Post 2 – First Identity marker (explain term & apply class theory)
Post 3 – Second Identity marker (explain term & apply class theory)
Post 4 − Discuss intersectionality of these 2 identity markers in your event/artifact
Post 5 – First Aspect of Social Power (explain term & apply class theory)
Post 6 – Second Aspect of Social Power (explain term & apply class theory)
Post 7 – Future classroom application (be specific & creative)
Post 8 − Revisit beliefs & reflect on process of writing these posts

★Grading Criteria

The assignment is worth 20 points total, but will be graded out of 60 points. 45 points come from 9 grading criteria that I will assess on a 0-5 scale (NG, Poor, Acceptable, Good, Very Good, Excellent) The grading criteria are:
—Introduction (5 points)

—Identity (15 points)
- Analysis through first identity marker
- Analysis through second identity marker
- Analysis of intersectionality of identity markers

—Social Aspects (10 points)
- Analysis through first social aspect
- Analysis through second social aspect

—Conclusion (10 points)
- Future application in your classroom
- Revisiting and reflection

—Explanation of terms (5 points)
- Accurate brief explanation of class terms used in posts

The additional 15 points will come from the comments you leave on other students' blogs. You will "follow" two other students' blogs. Each student will make 8 posts for you to comment on. Therefore, you will post 16 brief comments over the course of this assignment. Each of these comments will be worth 1 point (you can get an extra point). As long as you post on time and meet length requirements, your comment will receive full credit.

An "excellent" explanation includes the use of accurate citations from class readings, concise interpretations of those citations and strong, illustrative examples from personal experience or from outside the class.

An "excellent" analysis includes a clear and accurate understanding of class concepts, accurate and insightful connections to class concepts through references to the class readings, discussions, videos and activities.

An "excellent" application includes insightful and creative ideas that are specific to your future teaching situation.

★Data sources

In your posts, when you apply course concepts of identity markers and aspects of social power, you should draw on evidence from, and your arguments should be supported by, data and ideas from a variety (4-6 total) of sources. When citing these sources, be sure to use APA style citations both in text (e.g., Pincus, 2000, p. 33) and in a collected works cited at the end of the paper. Sources from which to support your thinking and arguments include:

- Readings from class (at least 4)
- Outside readings (academic articles/books as well as popular, but reputable books, newspapers, magazines & their online equivalents)
- Class discussions & class activities
- Service learning experience
- Interviews & observations with interesting/relevant teachers and students
- Personal experience as a student, teacher, tutor, etc

Please double check the instructor's classroom blog, te250.wordpress.com, for models of explanation and analysis.

Overall	Score	Comments
Explanation of terms for each identity marker and aspect of social power	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Introduction		
Introduce topic and preview areas of analysis	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Identity	**Score**	**Comments**
Analysis through first identity marker	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through second identity marker	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis of intersectionality of identity markers	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Social Aspects	**Score**	**Comments**
Analysis through first social aspect	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Analysis through second social aspect	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Conclusion	**Score**	**Comments**
Future application in	5 – Excellent	

your classroom	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Revisiting initial beliefs	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Reflection on process of writing a blog	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Participation	**Score**	**Comments**
Commenting on first blog	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Commenting on second blog	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Group Analysis Paper Assignment Instructions and Rubric

★Overview

Students will work individually and with groups of three to write a critical analysis paper about multiple aspects of social positioning such as privilege, discrimination and the social construction of identity as they relate to a single identity marker. Each student will be responsible for about 2-3 double spaced pages of the entire paper which will be 8-10 double spaced pages. The final paper should flow as one document to demonstrate the groups' collective understanding of social positioning and identity markers by drawing on assigned readings and additional sources. The paper is due submitted on Angel by Thursday December 15th at 10am.

★Organization

This paper will contain six parts. First, begin with an introduction paragraph defining your group's identity marker (with an in-text citation to either a course reading or an outside source). The purpose of this paragraph is explain what you mean by "gender" or "race," etc. You may also need to explain what your identity mark is not; i.e., how gender and sex or race and ethnicity are different. Again, you would want a class or outside source to support this argument. Lastly, you should also say something general and broad about your identity marker in society and education that previews the rest of the paper.

Second, explain how the identity marker is socially constructed. You will apply Harro's Cycle of Socialization theory, starting with the big idea and explaining in general how your identity marker fits into this theory. From there, be more specific and focus on the roles of schools (teachers, curriculum & social aspects) in socializing ideas about your identity marker. Wrap up this section by talking about ways teachers can enforce or go against this social construction process.

Throughout your explanation you should cite the appropriate readings in-text and fully at the end of this page. You will obviously cite Harro, but you need to also find one additional source to cite that supports your explanation of the social construction of your identity marker, especially as it relates to schools. See section on "data sources" for suggestions on where to find additional sources and how to integrate them into your analysis.

Third, explain how your group's identity marker is used to discriminate against certain groups. You will mostly be applying Pincus' theory, starting with the big idea and explaining in general how the identity marker fits into this theory. Then, you need to explain all three forms of discrimination and come up with a school-based example of each one. Again, see "data sources' section below.

Fourth, explain how the identity marker creates privilege for members of certain groups. You will likely be explaining Johnson's chapter from Unit 1 called "Privilege, Oppression and Difference" to explain the two types of privilege. However, for your identity marker, you may have a course reading that also talks about these two types of privilege specifically for your identity maker. You can cite and explain this reading instead of Johnson. Whether you use Johnson or some other identity marker specific article on privilege, you will also need one additional source.

Fifth, discuss the intersectionality of your identity marker with another identity marker. This section is a little different than the ones before it. In this section, you do not have a specific course reading that you are trying to explain. Instead, use your own understanding and one source to explain how your group's identity marker commonly influences/is influenced by another identity marker. Your explanation of this intersection should include multiple (2-3) school-based examples. You need to have at least one citation and can either pull from the course readings for examples of intersectionality between two identity markers or find an outside source that does so. If you do the former, reread the articles on your identity marker and you likely will see some discussion of its relationship to another identity marker. If you do the later, think about an example of intersectionality you believe to be true, and then look for sources that support or illustrate that.

Fifth, you will discuss the critical classroom applications of how teachers might challenge the social construction of normality and forms of discrimination associated with your group's identity marker. You will explain this by giving two examples of lessons or educational activities that would not only teach some grade and content area

learning goal, but also challenge social inequality related to your identity marker. Your two examples may come from your own ideas or you may find examples online of sample lessons and activities that serve this dual purpose of teaching state standards while challenging inequality. Sites like Teaching Tolerance and EdChange are good sources of these.

I am not expecting a fully articulated lesson plan, but spend a few sentences on each lesson/activity explaining what content & grade-level standards it teaches, and how it also encourages/empowers/challenges students socially. You do not have to have a specific number of citations here, but if you re-present a lesson/activity you found elsewhere, or if you just start with somebody else's idea and build off of it, make sure you cite it in text and below.

Sixth, end your paper with a conclusion paragraph that summarizes the major points you've made throughout your paper.

Below is a chart organizing the main points above

Section	Suggested Length	No. of Sources
Introduction	.5 page (150 words)	1 that defines ID marker
Social Construction	1.5 pages (400 words)	Harro + 1 more
Discrimination	1.5 pages (400 words)	Pincus + 1 more
Privilege	1.5 pages (400 words)	Johnson (or other) + 1 more
Intersectionality	1.5 pages (400 words)	1+ (from class or outside)
Classroom Application	1.5 pages (400 words)	0 required, but cite as needed
Conclusion	.5 page (150 words)	0 required, but cite as needed

★Grading Criteria

See separate grading rubric for specific grading criteria, but in general:

An "excellent" explanation includes the use of accurate citations from class readings, concise interpretations of those citations and strong, illustrative examples from personal experience or from outside the class.

An "excellent" analysis includes a clear and accurate understanding of class concepts, accurate and insightful connections to class concepts through references to the class readings, discussions, videos and activities.

An "excellent" application includes insightful and creative ideas that are specific to your future teaching situation.

★Data sources

Your paper should draw on evidence from, and your explanations should be supported by, data and ideas from a variety (8+) of sources. Many of these will come from course readings as you define your identity marker and explain key theories of social power. In

the introduction, if there is not a clear definition of your identity marker in the course readings, you will need an outside source for a clear, concise definition. Additionally, in your explanation of class concepts (social construction, discrimination, privilege and intersectionality) you will need a citation from outside the course readings to support the arguments made by the course reading.

Most often, this this additional citation will provide an example or statistic that supports or illustrates the class author's argument. For example, in explaining what Harro's theory says about the role of media in socializing beliefs about gender, you would cite Harro first, and then perhaps an article you find online about masculinity in a recent movie. Similarly, you might use an additional source to provide a statistic that helps make Harro's point and further your explanation of the social construction of your identity marker. For example, in explaining what Harro's theory says about school's role in socializing beliefs about language, you might find an article online giving survey results of teachers' opinions about bilingual and ESL. Remember, this is a paper for a teacher education course, so as much as possible, you should provide school-based examples of whatever it is you are explaining.

When citing these sources, be sure to use APA style citations both in text (e.g., Pincus, 2000, p. 33) and in a collected works cited at the end of the paper. Sources from which to support your thinking and arguments include:

Readings from class
Outside readings (academic articles/books as well as popular, but reputable books, newspapers, magazines & their online equivalents)
Service learning experience (you can cite your SL journal)
Interviews & observations with interesting/relevant teachers and students

★Formatting

Each main should be about 1.5 pages or 400 words maximum. Your group's editor should proofread all sections for consistency of language and formatting. The paper should read like one document written by one author, so the style of language should be consistently professional, academic tone that avoids contractions, slang, and other forms of informal language. There should also be consistency in the actual formatting of the paper including font, line spacing and indentations.

Please double check the syllabus for formatting requirements, additional writing guidelines and information on academic honesty and late assignments.

Section 1:	**Score**	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Section 2:	**Score**	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Group Work		
Average of group mates' review of your efforts in completing the group project	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Preparation for Finals day roundtable discussions	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Grading criteria for individual work sections (10 points each section)

1) Social Construction section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
2) Discrimination section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
3) Privilege section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
4) Intersectionality section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
5) Critical Classroom Application section
    Sample lesson/activity 1 (specificity & criticality)
    Sample lesson/activity 2 (specificity & criticality)
6) Editing section

Introduction & Conclusion
Formatting & Cohesiveness of language

Group Analysis Wiki Assignment Instructions and Rubric

Identity Marker Name

Begin your page with an introduction paragraph defining identity marker (with an in-text citation to either a course reading or an outside source). The purpose of this paragraph is explain what you mean by "gender" or "race," etc. You may also need to explain what your identity mark is not; i.e., how gender and sex or race and ethnicity are different. Again, you would want a source to support this argument. Lastly, you should also say something general and broad about your identity marker in society and education that previews the sections below. This paragraph should be written by the group editor, and should only be about 100 words long.

Social Construction

This section explains how the identity marker is socially constructed. You will mostly be applying Harro's Cycle of Socialization theory, starting with the big idea and explaining in general how your identity marker fits into this theory. From there, be more specific and focus on the roles of schools (teachers, curriculum & social aspects) in socializing our ideas about your identity marker. Wrap up this section by talking about ways teachers can enforce or go against this social construction process.

Throughout your explanation you should cite the appropriate readings in-text and fully at the end of this page. You will obviously cite Harro, but you need to also find one additional source to cite that supports your explanation of the social construction of your identity marker, especially as it relates to schools. Most people will use this additional citation to provide an example of a specific aspect of Harro's theory. For example, in explaining what Harro's theory says about the role of media in socializing beliefs about gender, you would cite Harro first, and then maybe an article you find online about masculinity in a recent movie. Similarly, you might use an additional source to provide a statistic that helps make your point and further your explanation of the social construction of your identity marker. For example, in explaining what Harro's theory says about school's role in socializing beliefs about language, you might find an article online giving survey results of teachers' opinions about bilingual and ESL. Remember, this is a wiki for educators (researchers, teachers, teacher education students, and others), so as much as possible, you should provide school-based examples of whatever it is you are explaining.

Formatting wise, each of these sections should be about 400 words maximum. This section is actually about 400 words, so use this as a measure of what your length should looks like. Also, remember this is for a professional, academic audience, so avoid contractions, slang, and other forms of informal language. You can follow the "model identity marker" template to input your text, but also make sure you proofread what you wrote to look for spelling and grammar errors. Your group's editor should also proofread

this section for any weird formatting errors. A consistent look across all pages is key to making these pages look professional. Little things matter, like what "level" header you use and when you use a double space and when you use a single space.

Discrimination

Similar to the instructions above, in this section you'll be explaining how the identity marker is used to discriminate against certain groups. You will mostly be applying Pincus' theory, starting with the big idea and explaining in general how the identity marker fits into this theory. Then, you need to explain all three forms of discrimination and come up with a school-based example of each one. Again, this is where you may find end up citing an additional source to give an example or provide a statistic. Every thing else about the formatting and length also applies here.

Privilege

This section will be very similar to the sections above in its purpose, use of sources, organization, length and formatting. You will likely be explaining Johnson's chapter called "Privilege, Oppression and Difference" to explain the two types of privilege. However, for your identity marker, you may have a course reading that also talks about these two types of privilege specifically for your identity maker. You can cite and explain this reading instead of Johnson. Whether you use Johnson or some other identity marker specific article on privilege, make sure you find an additional source to provide a school-based example or statistic that helps your explanation.

Intersectionality

This section is a little different than the ones before it. In this section, you do not have a specific course reading that you are trying to explain. Instead, you are explaining a concept we have discussed at various times during class: "intersectionality." You do not need to explain your terms here, just jump into explaining how your group's identity marker commonly influences/is influenced by another identity marker. Your explanation of this intersection should include multiple school-based examples. You need to have at least one citation here. You can either pull from the course readings for examples/statistics of intersectionality between two identity markers or find an outside source that does so. If you do the former, we may not have a reading specifically about two identity markers intersecting, but reread the articles on your identity marker and you likely will see some discussion of its relationship to another identity marker. If you do the later, think about an example that you believe to be true, and then look for sources that support or illustrate that.

Critical Classroom Application

This last section is the most different from the others. In this section, you will discuss how teachers might challenge the social construction of normality and forms of discrimination associated with your group's identity marker. You will explain this by

giving two examples of lessons or educational activities that would not only teach some grade and content area learning goal, but also challenge social inequality related to your identity marker. Your two examples may come from your own ideas or you may find examples online of sample lessons and activities that serve this dual purpose of teaching state standards while challenging inequality. Sites like Teaching Tolerance and EdChange are good sources of these.

I am not expecting a fully articulated lesson plan or even for your ideas to be necessarily realistic, but spend a few sentences on each lesson/activity explaining what content & grade-level standards it teaches, but how it also encourages/empowers/challenges students socially. You do not have to have a specific number of citations here, but if you re-present a lesson/activity you found elsewhere, or if you just start with somebody else's idea and build off of it, make sure you cite it in text and below.

Works Cited

Here is where all your sources cited in-text above will be collected. These should be in full APA format and arranged alphabetically (not in the order they appear below!) It is editor's responsibility to proofread the formatting here and make sure everything is in order.

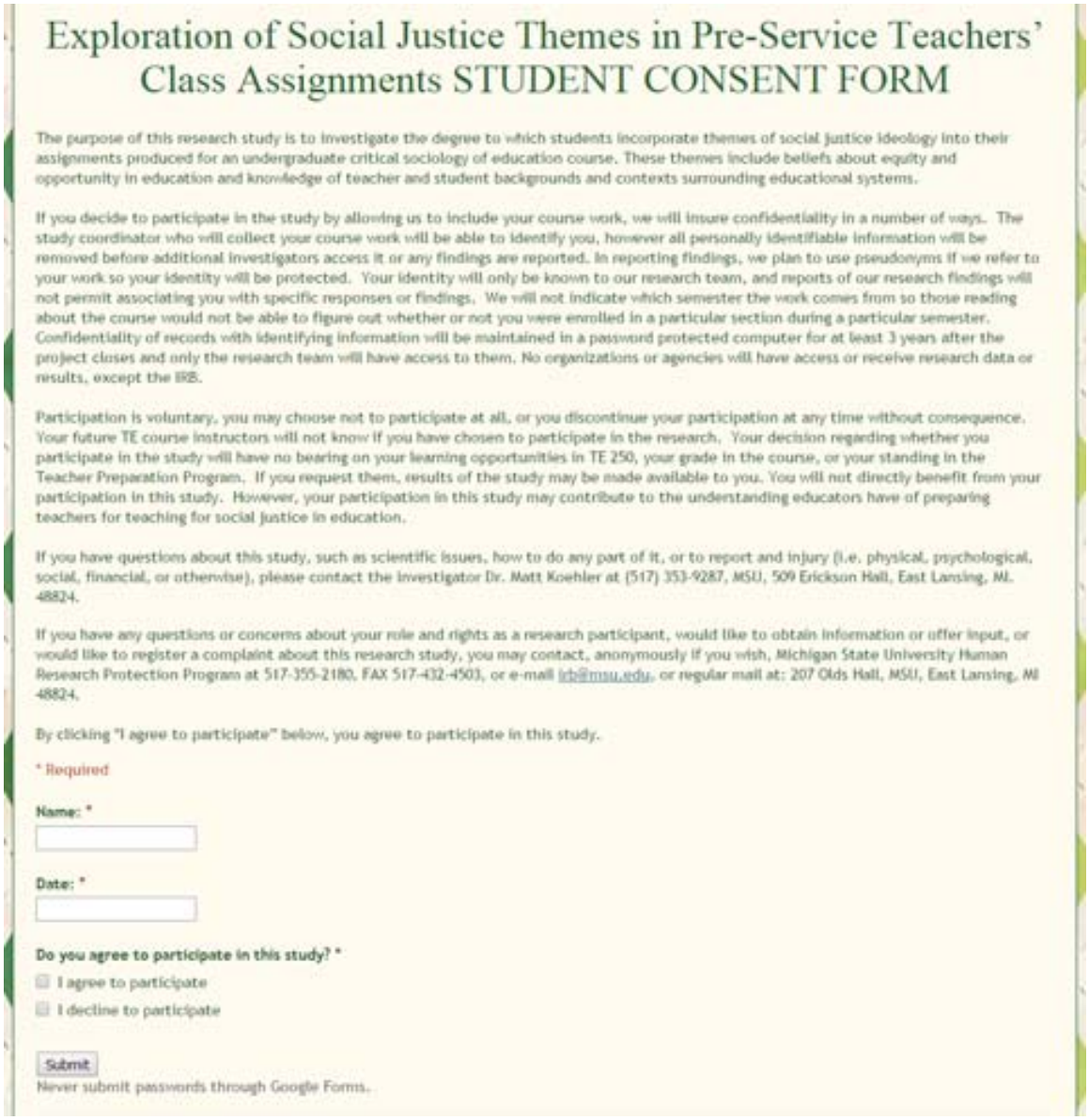
Section 1:	**Score**	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Section 2:	**Score**	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Group Work		
Average of group mates' review of your efforts in completing the group project	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	
Preparation for Finals day roundtable discussions	5 – Excellent	
	4 - Very Good	
	3 – Good	
	2 – Acceptable	
	1 – Poor	

Grading criteria for individual work sections (10 points each section)

1) Social Construction section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
2) Discrimination section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
3) Privilege section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
4) Intersectionality section
    Explanation of class concept (Accuracy & depth)
    Use of sources (class and/or additional references)
5) Critical Classroom Application section
    Sample lesson/activity 1 (specificity & criticality)
    Sample lesson/activity 2 (specificity & criticality)
6) Editing section
    Introduction & Conclusion
    Formatting & Cohesiveness of language

Appendix C - Study Forms



Exploration of Social Justice Themes in Pre-Service Teachers' Class Assignments STUDENT CONSENT FORM

The purpose of this research study is to investigate the degree to which students incorporate themes of social justice ideology into their assignments produced for an undergraduate critical sociology of education course. These themes include beliefs about equity and opportunity in education and knowledge of teacher and student backgrounds and contexts surrounding educational systems.

If you decide to participate in the study by allowing us to include your course work, we will insure confidentiality in a number of ways. The study coordinator who will collect your course work will be able to identify you, however all personally identifiable information will be removed before additional investigators access it or any findings are reported. In reporting findings, we plan to use pseudonyms if we refer to your work so your identity will be protected. Your identity will only be known to our research team, and reports of our research findings will not permit associating you with specific responses or findings. We will not indicate which semester the work comes from so those reading about the course would not be able to figure out whether or not you were enrolled in a particular section during a particular semester. Confidentiality of records with identifying information will be maintained in a password protected computer for at least 3 years after the project closes and only the research team will have access to them. No organizations or agencies will have access or receive research data or results, except the IRB.

Participation is voluntary, you may choose not to participate at all, or you discontinue your participation at any time without consequence. Your future TE course instructors will not know if you have chosen to participate in the research. Your decision regarding whether you participate in the study will have no bearing on your learning opportunities in TE 250, your grade in the course, or your standing in the Teacher Preparation Program. If you request them, results of the study may be made available to you. You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the understanding educators have of preparing teachers for teaching for social justice in education.

If you have questions about this study, such as scientific issues, how to do any part of it, or to report and injury (i.e. physical, psychological, social, financial, or otherwise), please contact the investigator Dr. Matt Koehler at (517) 353-9287, MSU, 509 Erickson Hall, East Lansing, MI. 48824.

If you have any questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this research study, you may contact, anonymously if you wish, Michigan State University Human Research Protection Program at 517-355-2180, FAX 517-432-4503, or e-mail irb@msu.edu, or regular mail at: 207 Olds Hall, MSU, East Lansing, MI 48824.

By clicking "I agree to participate" below, you agree to participate in this study.

* Required

Name: *

Date: *

Do you agree to participate in this study? *

- I agree to participate
- I decline to participate

Submit

Never submit passwords through Google Forms.

Figure 12

Participant online consent form.

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