Cultural Awareness and Congruence: A Paradigm Shift through Immersion and Intentionality

Alexander Hines
Winona State University

Rinnel Atherton
College of the Marshall Islands

The purpose of the study was to investigate if there is a relationship between an intentional pedagogical approach centered on cultivating cultural competency skills in pre-service teachers and a positive shift in the cognitive lens they employ regarding their perceptions of cultural diversity. The results of the study suggest that after experiencing intentional pedagogy aimed at nurturing cultural competency skills that there was a significant difference in pre-service teachers' perceptions and cognition regarding cultural diversity and its related educational implications in comparison to their perspective and cognition prior to experiencing the intentional pedagogy. The paired-samples t-test conducted to evaluate cognition on cultural differences in two conditions: first, preceding pedagogy centered on developing cultural competence; second, succeeding pedagogy centered on developing cultural competence revealed a statistically reliable difference between the mean pre and post pedagogical conditions for both perceived and developmental orientations respectively.

There is a reasonable quantity of research related to pre-service teacher education focused on improving and restructuring teacher education programs (DeAngelis, Wall, & Che, 2013; Michael & Miller, 2011; Plecki, Elfers, & Nakamura, 2012; Young & Knestrict, 2012). The reformation process encompasses different approaches including co-teaching, teaching and modeling a collaborative paradigm, interaction between pre-service preparation and induction support, and accountability and improvement (DeAngelis, Wall, & Che, 2013; Michael & Miller, 2011; Plecki, Elfers, & Nakamura, 2012; Pugach & Blanton, 2009; Young & Knestrict, 2012). Other work centered on the achievement gap indicated that although the disparities between underrepresented/underserved children and those from the dominant culture are closing, the gap is still abysmal (Alexander, Entwistle, & Horsey, 1997; Becker & Luthar, 2002; Winerman, 2011; Zima, Bussing, Freeman, Yang, Belin, & Forness, 2000). Consequently, when one considers the focal point of the reformation process for teacher education programs, the continuous educational disparities, plus theories based on multicultural education there is still a need for empirical work focused on building cultural competency skills in pre-service teach-

ers. Moreover, these issues support the fundamental need to initially ignite and then cultivate in pre-service teachers more constructive cognition with regard to cultural diversity.

And so, the goal of this research is to examine whether or not there is a relationship between providing students with an intentional pedagogical approach expressly focused on developing cultural competency skills and a positive shift in the cognitive lens students utilize in relation to their perceptions of cultural diversity. Considering the goal, it is important to define terms such as cultural competency, the cognitive lens, cultural congruence, and other concepts fundamental to the work.

Definitions

In accordance with the theory and model, the Cognitive Lens involves the thinking that directs, focuses, shapes, influences, and facilitates individuals' comprehension, evaluation, and perceptions (Atherton, 2010; Atherton & Hines, 2013). The cognitive lens drives people's capacity to first consider and then take the perspectives of other individuals, and to engage in critical thinking. It influences our willingness to shift our paradigm when logic dictates as well as, our ability or lack of ability to effectively problem solve. The cognitive lens that we bring to bear guides our interactions with others; it directs adaptation processes such as progressing from assimilation to accommodation of novel information and concepts. Our cognitive lens supports our sense of self, our confidence or lack thereof; it can facilitate or hinder our successes. Our cognitive lens aids in decision making processes, the nature of our thinking, and overall intellectual functioning. The ability to gain expertise in selected domains is impacted by an individual's cognitive lens. Similarly, one's sense of self in terms of self-concept is impacted by one's cognitive lens.

The other side of the coin: What shapes our cognitive lens? An individual's cognitive lens is shaped by prior knowledge, experiences, cultural norms, traditions, beliefs, values, ways of knowing, and our sense of self (Atherton, 2010; Atherton & Hines, 2013; Atherton & Hines, 2013). An individual's acceptance of who they are, the knowledge that they are worthy and valuable, and that their contributions are noteworthy significantly supports the positive progression of the way in which our cognitive lens develops over time. Both nature and nurture impact the way in which our cognitive lens initially develops and subsequently progresses. It is through our interactions with others in diverse contexts, modeling and scaffolding processes experienced with others, the level of cultural knowledge and the extent of cultural literacy gained by individuals, the biological frame with which an individual is endowed, social class, and socio-economic status that shape and develop one's cognitive lens. School, community, technology, policies, social media, historical systems, and individuals' sense of belonging and their perceptions of emotional risk/security within diverse contexts also impact one's cognitive lens.

Diversity awareness is the understanding that people differ in multifarious ways including gender, race, ethnicity, age, physical and mental ability, sexual orientation, language, veteran status, religious beliefs, marital status, parental status, education, income, occupation, geographic location; it also involves comprehending that some aspects of diversity have more impact than others on the possibilities

open to people (Atherton & Hines, 2011; Gurin, Dey, Hurtado, & Gurin, 2002). Cultural Awareness involves individuals' capacity to consider and assess their own cultural background to unearth unconscious preconceptions and prejudices that might impact inclusion (Goode, 2001, revised 2006; Quappe & Cantatore, 2003; Winkleman, 2005). Each individual's experience is unique, marked by the intensity of cultural cognizance in which she or he engages throughout the discernment process. Once you are cognizant of your unconscious preconceptions and prejudices and reflect and reassess your own personal ethnocentric perspective, cognitive dissonance is reduced when new information from another perspective is acquired through the process of accommodation (Goode, 2001, revised 2006; National Center for Cultural Competence, 2014; Winkleman, 2005).

Definitions of cultural competence have evolved from diverse perspectives, interests and needs and are incorporated in state legislation, Federal statutes and programs, private sector organizations and academic settings. The definition for multicultural education has been widely adapted and modified over the past 15 years (Bennett, 2001; Harushimana & Awokoya, 2011; Gay, 1995; Neal & Crawford, 2010; Rego & Nieto, 2000; Sleeter & Grant, 2004). Even so, we endorse Neal and Crawford's (2010) perspective that multicultural education is a process that pervades all facets of school customs, procedures, policies and the organization in order to ensure, through equity, attainment of the highest levels of positive adjustment (i.e. social, behavioral, and academic success) for all students. It helps students develop a positive self-concept and positive perceptions of "otherness" by providing knowledge about the past, traditions, ethnicities, customs, and contributions of diverse groups. Multicultural education also advocates the belief that students and their life histories and experiences should be placed at the center of the teaching and learning process and that pedagogy should occur in a context that is recognizable to students and that discerns and values multiple ways of knowing and learning (Bennett, 2001; Gay, 1995; Neal & Crawford, 2010).

Cultural competence allows individuals to engage in culturally proactive pursuits, culturally responsive teaching/undertakings, and culturally relevant pedagogy (Atherton & Hines, 2013). Cultural competence involves the ability to engage in courageous conversations. It entails taking seriously the perspective of others which supports a cognitive shift towards ethnorelativity (Atherton & Hines, 2013; Gay, 1995, 2010; Ladson-Billings, 2001; Neal & Crawford, 2010; Ramsden, 2003). This facilitates individuals' ability to effectively relate to or engage with others who are culturally diverse.

According to Singer (1988) cultural congruence is demarcated as an integrally adequate pedagogical approach that supports the notion that the purpose of educating diverse (e.g., ethnic minority) individuals is to school students in the competences necessary for them to achieve in mainstream culture. Furthermore, its supporters reason that this objective can be accomplished when students experience a sense of security because the classroom context is commensurate with the learning environs of the cultures to which they belong (Singer, 1988; Zeichner, 1995). Atherton and Hines (2013) propose that the concept of cultural congruence entails knowing and respecting diverse cultures in terms of backgrounds, cultures, and languages of diverse students (as supported by Zeichner, 1995). Crucial as well to

this competence is the necessity for faculty and educators to develop universal knowledge of sociocultural factors associated with human development, acquisition of a second language, and the manner in which socio economic contexts, language, and culture impact performance in school (in line with the Vygotskian perspective; Atherton & Hines, 2013). Individuals, who experience cognitive congruence, embrace their own cultural identity and are able to support cultural perspectives that are diverse in nature from their own (Atherton & Hines, 2013).
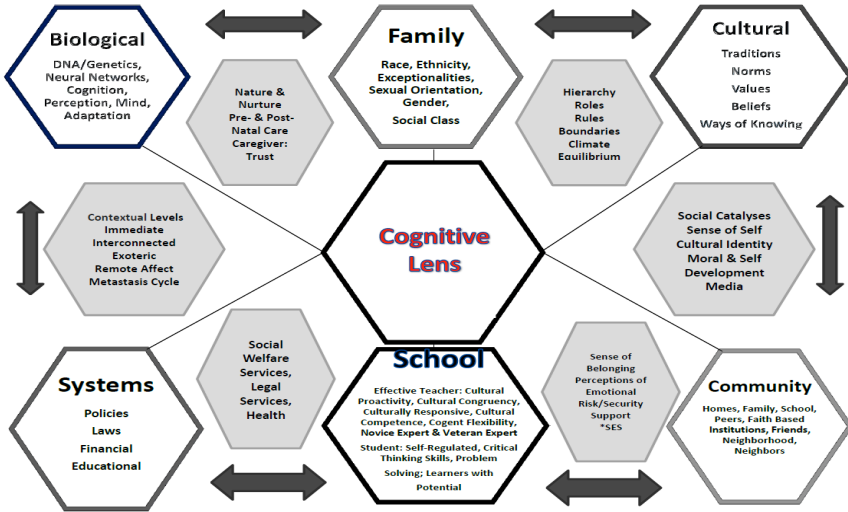

FIGURE 1. The Cognitive Lens Conceptual Model

Methods

The goal of the current study is to investigate the relationship between a distinctive pedagogical approach focused on developing cultural competencies and a shift in pre-service teachers' cognitive lens. The researchers wanted to examine whether or not after six weeks of intentional pedagogy—comprising critical thinking questions, intensive analytical reading, four laboratory workshops, intensely working with underserved underrepresented youth, and rigorous course discussions—students would experience a significant change in their cognition regarding cultural differences.

Participants

This is a convenient sample representative of the population admitted to the College of Education at a four-year institution in the Minnesota State Colleges and Universities System. The sample comprised 22 students enrolled in a six week summer offering of the human relations and diversity course—generally offered in the fall, spring, and summer respectively—which all students admitted to the teacher education program must take as part of their program of study. The

breakdown of males and females comprised three males and 19 females (the ratio is typical). The racial demographic of the sample is 21 Caucasian and one African American (again this is normal).

Materials

The Intercultural Development Inventory (IDI) a statistically reliable, cross-culturally valid measure of intercultural competence was utilized to discern the intellectual aspects of the cognitive lens that support students' respective levels of cultural competence. The IDI (a 50-item theory-based instrument) can be taken either in paper and pencil or online format. It is currently in twelve languages (Bahasa, Indonesian, English, French, German, Italian, Portuguese, Spanish, Russian, Korean, French, Japanese, and Chinese). Translations from the English-language version were accomplished utilizing rigorous "back translation" scientific procedures to protect both linguistic and conceptual parity. The instrument is straightforward. It can yield a detailed graphic profile of an individual's or different groups' predominant level of intercultural competence along with a detailed word-based analysis of that level of intercultural development and associated transitional issues. The Developmental Model of Intercultural Sensitivity (DMIS) was created by Dr. Milton Bennett (1986 & 1993) as a framework to describe people's responses to cultural diversity. In both scholastic and corporate contexts, he observed that individuals handled cultural difference in some foreseeable ways as they grew more adept at intercultural communication. Using concepts from cognitive psychology and constructivism, he categorized these observations into six phases of expanding sensitivity to cultural diversity. The model's underlying hypothesis is that as one's experience of cultural difference becomes more multifaceted and advanced one's competence in intercultural interactions increases. Each phase indicates a particular cognitive structure that manifests in specific types of dispositions and behavior related to cultural difference. By recognizing the basic cognitive proclivity toward cultural difference, projections about behavior and dispositions can be made and education can be personalized to promote development into the next phase.

Another instrument used in the study to examine students' thinking was the Greatest Classroom Challenges (an adaptation by Hines and Atherton, 2012 of the Greatest Challenges created by Catherine Cornbleth, 2008). The instrument is made up of several components including seven different learning styles, a human relations component, and definitions, messages and stereotypes. Students are asked to construct definitions of concepts/terms based on their understandings. They are expected to identify what they perceive to be their greatest diversity challenges—personal connection, academic connection, student engagement, and classroom management—plus the greatest classroom challenges—diversity awareness, messages, cultural awareness, cognitive lens, cultural competence, knowledge of students, learning styles, family systems, community systems, colleague engagement, and professional development. After students complete the assessment, they are given the definitions of terms and concepts as conceptualized by Atherton and Hines and as recognized in the literature. Also important, were student interviews and discussions to garner qualitative information on how student thinking developed over the course of the six weeks.

Other resources involve supplemental reading materials including "cultural sensitivity manual," "understanding families: applying family systems theory to early childhood practice," "critical race theory in education packet," "what teachers should know and be able to do—National Board for Professional Teaching Standards," "culturally responsive teaching packet from integrating new technologies into the methods of education," and "five standards of effective pedagogy" from "teaching tolerance."

Procedure

Pre-service teachers were asked to participate in the project focused on examining the relationship between a specific pedagogical approach centered on developing cultural competence and a shift in cognition regarding cultural differences. As part of the study pre-service teachers were asked to think critically, analyze, develop critical thinking questions, and answer questions that foster higher order thinking of the assigned readings for the course. The students also attended four laboratories focused on the role of culture on student adjustment within educational contexts. They spent one week working intently with fifty-two male and female underserved and underrepresented students (9-12 grade) attending Winona State University's H.O.P.E. (Harnessing Opportunities for Post-secondary Education) Academic and Leadership Academy. The program is designed to provide 9th through 12th grade underrepresented and underserved female and male students with an opportunity to experience life on a college campus by engaging them in relevant academic coursework and classes with motivational and informational workshops and forums. The goal is to provide classes, programs and activities that are responsive to the real academic, financial, motivational, race, diversity, gender, and educational barriers to post-secondary access, success, and life-long opportunities. The pre-service teachers of this summer research also served as facilitators for thirty-five students in the Emerging Teachers in Teaching and Education (ELITE) Academy coordinated by the West Metro Education Program a consortium of Minnesota School districts in partnership with the Minnesota Office of Higher Education. Elite Academy is a week-long residential program designed for high school students of color with an interest in teacher education or students who have the potential to be future educators. Pre-service teachers also functioned as discussion facilitators for fifty-eight students at the Be Your Best College Prep Academy hosted by Riverland Community College in Austin, Minnesota. Be Your Best College Prep Academy is a free program for teens and young adults between the ages of 16 and 22. At Be Your Best, students have the opportunity to prepare for college by taking pre-college Math, Reading, Writing, and Career Planning. Students receive guidance and support through dedicated instructors, advisors, counselors, and tutors. Students also benefit from the educational seminars designed for college success and participate in fun leadership, volunteer activities, and field trips throughout the summer.

Corresponding to measurement, participants were administered the IDI assessment prior and subsequent to engaging and experiencing the curriculum specific to this human relations and diversity course as outlined by the instructors. Students also completed the Greatest Classroom Challenges assessment and engaged

in discourse and interviews. With regard to the statistical analysis a paired samples t-test was performed to examine if there was a significant difference between the means from pre-test to post-test based on students' cognitive processes relating to cultural differences prior and subsequent to experiencing the intentional pedagogical approach. Exploratory analysis also was carried out to see if there were any significant differences between male and female participants.

Results

Group Perceived and Developmental Orientation scores from the IDI assessment administered to the pre-service teachers (i.e., participants) are reported. The group perceived orientation score prior to participants' experiencing six weeks of distinctive intentional pedagogy was 121.32 categorized as Acceptance; and the group developmental orientation score was 94.19 representing Minimization. After students experienced six weeks of an intentional well-defined pedagogical approach the group perceived orientation score was 126.17 placing in Acceptance. In contrast, the group developmental orientation score was 104.59 placing the group in Minimization. An analysis of the data further highlighted that students' individualized perceived orientation and developmental orientation scores moved in the same direction from pre-test to post test (e.g., if the post-test developmental orientation score increased from pre- to post-test so did the perceived orientation scores). An examination of the boxplots indicates that there is less variation in the scores for males than females. There are also no apparent outliers.

A paired-samples t-test was conducted to compare cognition on cultural differences in two conditions: first, preceding pedagogy focused on developing cultural competence; second, succeeding pedagogy focused on developing cultural competence. A paired samples t-test revealed a statistically reliable difference between the mean pre and post pedagogical conditions for both perceived and developmental orientations respectively. With regard to students' perceived orientation there was a statistically meaningful difference between pre-pedagogical (M =121.31; SD = 6.86) and succeeding pedagogical (M = -126.31; SD = 6.63) conditions; $t(21)$ = -3.79, p = .001, α = .003. In relation to students' developmental orientation there was a significant difference in the scores before (M = 94.2, SD = 17.52) and after (M = 104.6, SD = 17.93) students experienced the treatment condition $t(21)$ = -3.17, p = .005, α = .003. Relevant as well was evidence of a trend in the relationship between individuals' perceived orientation and individuals' developmental orientation scores. For instance, when there was an increase in the perceived orientation scores there was also an increase in the developmental orientation scores and vice versa.

Dialogue, survey, and interview data from pre-service teachers were consistent with and confirmed the findings. An analysis of the data verified that prior to treatment (intentional well-defined pedagogy) conditions 70% of the participants reported classroom management, 20% described student engagement, and 10% expressed academic connection as their greatest classroom challenges. At the onset of the course students in general indicated that discipline and classroom management would be major challenges. However, after experiencing laboratories, read-

ing, working with students in H.O.P.E. academy, and engaging in discourse on the whole there was a cognitive shift in pre-service teachers perceiving student engagement and academic connection as their greatest classroom challenges. Correspondingly, pre-service teachers indicated that effective classroom leadership should considerably reduce discipline issues; and that there is a need to focus on developing effective classroom leadership skills as opposed to classroom management which focuses on control. Also relevant, pre-service teachers discussed the importance of setting high credible expectations for academic achievement, positive behavior, and social interactions as well as, utilizing an authoritative approach as opposed to an authoritarian style. Analysis of the discourse established that pre-service teachers began to understand that students come with different levels of knowledge based on their experiences—influenced by socio-economic status, race, ethnicity, etc. which are all aspects of culture. This facilitated the understanding that teachers need to get to know their students (e.g., culturally, academically, socially—in terms of their interactions—and behaviorally) as this would allow them to better serve all students especially the underserved underrepresented.

Discussion

The goal of the investigation was to examine whether or not a relationship exists between an intentional pedagogical approach explicitly focused on developing cultural competency skills in pre-service teachers and a positive shift in the cognitive lens they utilize in relation to their perceptions of cultural diversity. The results of the study indicate that after experiencing intentional pedagogy focused on developing cultural competency skills that there was a significant difference in pre-service teachers' perceptions and cognition regarding cultural diversity and its related educational implications in comparison to their perspective and cognition prior to experiencing the intentional pedagogy.

An analysis of the results of the study established that subsequent to pre-service teachers experiencing intentional pedagogy—comprising critical thinking questions, intensive analytical reading, four laboratory workshops, intensely working with underserved underrepresented youth, and rigorous course discussions—they evidenced a cognitive shift in their cognition regarding diversity, cultural awareness, cultural competence, and culturally relevant pedagogy which surpassed the standard course description. At the beginning of the course we observed that the pre-service teachers experienced cognitive dissonance as they encountered new information with regard to diversity, race and culture coming from faculty members of color as well their own cultural unconscious and conscious biases. They also had not reflected on their own cultural heritage and identity other than being an American to self-reflect on and understand their own culture which placed them on the ethnocentric spectrum of diversity and cultural competence. Not only did some of their paradigms shift at the conclusion of the course as evident by their IDI scores, we also observed a cognitive shift in their respective paradigms during classroom discussions and while working with the high school students categorized as underserved and underrepresented. We believe that a major impact with the pre-service teachers was the counter storytelling and the absent narratives of the students with whom they worked. Furthermore, we reason that pre-service teachers

gaining knowledge of H.O.P.E. students' experiences in their homes, communities and schools may have been a direct link to the cultural cognitive shift in terms of an ethno-relative perspective which pre-service teachers evidenced as supported by the IDI. Therefore, we recommend that as educational leaders consider course work within colleges/schools of education and professional development for in-service teachers within public and private institutions there needs to be some focus placed on developing cultural competency skills. Moreover, we suggest that the training has to be more rigorous than one diversity course with a focus on racial equity. We advocate for training that includes trainees learning about and developing an understanding of their own cultural heritage; from our perspective and based on our observations with pre-service teachers in this study (and in other research on which we are working) this facilitates an individual's ability to be more open to learning about others who are diverse. It supports an ideology of acceptance as opposed to tolerance which in our view bears a negative connotation.

The cognitive shift manifested in pre-service teachers expressing an understanding that students come with different backgrounds; learners bring to the school context prior experiences including cultural ways of knowing, the impact of social media and historical systems, and more, which affect student development (Atherton & Hines 2013). Based on our analysis of the results we can then infer, that the cognitive lens these pre-service teachers will utilize in the future as they engage with their students in learning environments and their perceptions of students' abilities should be less tainted by stereotypes. This should support pre-service teachers' capacity to engage in educational pursuits that would support all students becoming more self-regulated and experiencing positive adjustment. Pre-service teachers' cultural belief systems can unfortunately be misinformed by not being exposed to different cultures within the context of their own communities and learning environments which then gives them a false sense of being ethno-relative when they are more ethnocentric. Our conversations with this cohort and other cohorts have provided us with the insight that although pre-service teachers and other students say that they have friends from different cultural backgrounds, they underestimate the necessity to understand their cultural ways of knowing such as family dynamics, rites, and traditions to support deeper understanding to develop a more ethno-relative context of their multilevel relationships. We believe that this is essential to hopefully better inform them of the concept of duality that they face in various ecological systems. This work also verified that a lot of pre-service teachers and even some in-service teachers' understanding of historical knowledge is limited in terms of the significant contributions of African Americans, Asian Americans, Latino Americans, American Indians, and other diverse and multicultural populations which invokes marginalization and stereotype threats. From our perspective, these stereotype threats are more often perpetuated through media such as television, movies, music, advertisement and marketing campaigns, and other forms of media outlets which unfortunately give a false perception that racial and ethnic groups are monolithic which suggest that the color-blind ideology and living in a post racial society—that are merely words with no meaning in most educational environments—fail to address educational equity and promote identity development for the success and learning of all.

Given the findings, more institutions of higher education involved in the business of training pre-service teachers and other institutions concerned with in-service teachers' professional development should consider including training elements focused on developing cognition regarding family systems, diversity and cultural awareness, systems that impact social justice and equity, history that does not marginalize people of color, gender studies to examine masculinity, femininity and their intersectionalities, and critically analyzing the various forms of media that perpetuate stereotype threats and microracial aggressions. In this era of the achievement gap, opportunity gap, which is more of a gulp than a gap, or the Education Debt as described by Dr. Gloria Ladsen-Billings (2007), there, must be a change in curricula which effectively prepare teachers to work in education. This is a field that is rapidly shifting in terms of student demographics, and so it is critical to deliver culturally relevant pedagogy to all children and not what are considered to be other people's children, or them, or those children. In order to raise the achievement of children of color, pre-service teachers, novice teachers and veteran teachers must be provided with skills, experiential education, and classroom education that will focus on identity development of the family and the child. Identity and cultural awareness development is not a win/lose or zero sum game, they will raise the consciousness of students of color as well as the cultural awareness of Caucasian students when they are aware of the significant contributions of people of color in this country. Institutions must be courageous in teaching the untold history of this great nation as well as historical, cultural and racial foundations that are embedded in every discipline that are taught in our educational institutions. It is one thing to teach equality but a totally different concept to teach equity.

The research undertaken identifies that there is a need to develop a more profound understanding of the various components that influence and develop the cognitive lens with which an individual operates as he/she functions within the context of school (see Appendix for Cognitive Lens model; Atherton & Hines, 2013). We propose that higher education institutions need to take a more courageous path; we are not saying that the work that has been done over the last twenty years is insignificant. Rather, it is our assessment that the work needs to be constantly revised and restructured commensurate with the current needs of students, parents and communities that are served by teachers and educational institutions. We need to take steps that will allow us to prepare teachers in such a way that will positively develop the cognitive lens they utilize as they facilitate children's ability to self-regulate and to experience positive adjustment within educational contexts. Correspondingly we feel that it is fundamental that pre-service teachers develop and understand classroom leadership skills rather than having a curriculum that focuses on classroom management. Based on our analysis of the classroom discourse, we assert that classroom management has a connotation of behavior and control whereas a focus on classroom leadership promotes a more transformative paradigm without a deficit ideology. From our perspective, classroom leadership is founded on guidance, mentoring, and an authoritative approach instead of an authoritarian style based on strict obedience which is more of a dictatorial environment of learning.

As education leaders critically analyze and review current curricula, they

must be transformative throughout the process; this entails modifying curricula to send a better cognitively prepared pre-service teacher into the workforce. The ideology is to facilitate the positive progression of the cognitive lens pre-service teachers utilize as they engage with students to support the development of self-regulation skills and promote opportunities for all students to experience positive adjustment in schools. Considering the results of the study, we strongly suggest that public education cannot rely solely upon professional development centered on delivering white privilege and anti-racism training for novice and veteran teachers. Diversity and cultural awareness efforts will have added power if they can be rooted in the unique history, culture and place of each institution. If an institutional-wide effort around inclusivity and equity is to be effective, it must be articulated in the mission and championed by leadership to all members in our educational institutions and communities. In these leadership roles, leaders have a critical responsibility, they are charged with giving meaning and urgency to the equity mission. They must convey the message and lead the charge. These transformational strategies respond to the demands for social justice regarding the incorporation of racial and ethnic minorities in the institutional fabric of the curriculum and professional development. Addressing issues of a culturally relevant curriculum for diversity and racial equity and change is not easy, especially among communities, political systems such as healthcare, housing, social and human services, and legal systems as well as diverse peers with different goals and agendas. In our view, a collaborative effort between higher education and public education wide initiatives around diversity and equity will require processes that enable potential conflicts to be explored and innovative solutions proposed. This will further require institutions to not see diversity as an added expense but a necessity to which education must be committed. There is a need to promote initiatives that utilize support for trained facilitators, professional development opportunities that can strengthen individual performance, and provide diverse formats for reflection and discussion that serve a variety of interactive preferences. We cannot assume that educational leaders, teachers, faculty and staff are equipped with the understanding of what diversity and cultural awareness, cultural congruence, cultural competency, culturally relevant pedagogy, and equity mean or what changes need to be made in order to integrate it more fully into educational missions and philosophies. We all have much to learn, both individually and collaboratively. Participation in the process is as significant a goal as developing measurable outcomes for change.

A limitation of the study relates to the issue of not following up with the pre-service teachers following their pedagogical experience. Specifically, it would be productive to examine the degree of the cognitive shift six months and then one year subsequent to their experience of the treatment in terms of whether or not pre-service teachers demonstrate cultural competence as they engage with students in a culturally diverse setting. It would be interesting to look at IDI scores as well as survey and interview data to explain if the impact of the intentional pedagogy goes beyond the treatment period. We recommend that future research consider including experiences that allow teacher candidates or in-service teachers to understand the cultural characteristics and contributions of different ethnic groups as suggested by Gay (2002), Hollins, King, and Hayman (1994), and Pai (1990). Furthermore,

researchers can examine the relationship between acquiring comprehensive authentic information about the cultural characteristics of certain ethnic groups such as Native, African, Latino, and Asian Americans and teachers' cultural competence. The understanding and learning teachers need to develop concerning cultural diversity must extend beyond simple consciousness of, tolerance for, and acknowledgment that diverse racial groups have different standards and ideals or articulate comparable ethics in many ways Gay, 2002).

In conclusion, an analysis of the results of the study determine that after experiencing intentional pedagogy focused on developing cultural competency skills that there was a significant difference in pre-service teachers' perceptions and cognition regarding cultural diversity and its related educational implications in comparison to their perspective and cognition prior to experiencing the intentional pedagogy. The results also support the idea that the existence of a racial gap is real. Subsequently, one can infer from these results as discussed herein that change must manifest throughout the process of pre-service teacher preparation programs as well as in on-going professional development curricula that veteran teacher's experience.

References

Alexander, K. L., Entwisle, D. R., & Horsey, C. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70*, 87-107.

Alexian Brothers (2007). Cultural sensitivity manual. *Alexian Brothers Health System.* Retrieved from http://www.alexianbrothershealthsystem.org/mission/culture/jainism.html

Atherton, R. G. (2010). *The Cognitive lens defined*. Unpublished manuscript.

Atherton, R. G., & Hines, A. (2013). *The cognitive lens a definition and theory of the model.* Unpublished manuscript.

Atherton, R., & Hines, A. (2013). The light of knowledge and reason: What faculty in B-20 institutions should practice and provide to facilitate student success critical competencies that support student success in B-20 educational contexts. *The quest journal of higher education excellence, II* (III), 14-25.

Becker, B. E., & Luthar, S. S. (2002). Social-Emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Journal of educational   psychology,   37,* 197-214.

Bennett, C. (2001). Genres of research in multicultural education. *Review of educational research, 71*, 171-217.

Bennett, C. I. (1990). *Comprehensive multicultural education: Theory and practice* (2nd ed.). Boston: Allyn and Bacon.

Bennett, M. J. (1986). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Cross cultural orientation: New conceptualizations and applications* (pp. 27-70). New York University Press of America.

Bennett, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R.M. Paige (Ed.), *Education for the intercultural experience* (pp.21-71). Yarmouth, ME: Intercultural Press.

Christian, L. G. (2006). Understanding families: Applying family systems theory to early childhood practice. *Young children, 61*(1), 12-20. Retrieved from the ERIC database. (EJ729645)

Cornbleth, C. (2008). *Diversity and the New Teacher: Learning from Experience in Urban Schools*. New York: Teachers College Press.

DeAngelis, K, Wall, A., & Che, J. (2013). The Impact of Preservice Preparation and Early Career Support on Novice Teachers' Career Intentions and Decisions. *Journal of Teacher Education, 64* (4), 338-355.

Five   Standards   of   Effective   Practice   (*n. d.*).   *Teaching   tolerance.*   Retrieved   from www.tolerance.org/supplement/five-standards-effective-practice

Gay, G. (1995). A multicultural school curriculum. In C.A. Grant & M. Gomez (Eds.), *Making school multicultural: Campus and classroom* (pp. 37-54). Englewood Cliffs, NJ: Merrill   Prentice Hall.

Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of teaching education, 53* (2), 106-116.

Gay, G. (2010). *Culturally responsive teaching: Theory, research, & practice.* New   York: Teachers College Press.

Goode, T. (2001,revised 2006). *Key definitions*. Washington D.C.: National Center for Cultural Compe-tence, Georgetown University Center for Child and Human Development. Retrieved from nccc.georgetown.edu/resources/publicationstype.html

Gurin, P., Dey, E., Hurtado, S. & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard educational review, 72* (3), 1-26.

Harushimana, I. & Awokoya, J. (2011). "African born immigrants in U.S. schools: An   intercultural perspective on schooling and diversity." *Journal of praxis in multicultural education, 6(1)*. Re-trieved from digitalscholarship.unlv.edu/jpme.

Hollins, E.R., King, J.E., & Hayman, W.C. (EDS.). (1994). *Teaching diverse populations: Formulating a knowledge base*. Albany: State University of New York Press.

INTIME Integrating New Technologies into the Methods of Education (1992-2002). Culturally respon-sive teaching. *Integrating new technologies into the methods of education-INTIME*. Retrieved from www.intime.uni.edu/multiculture/curriculum/culture/teaching.htm

Ladson-Billings, G., & Tate, W.F. (1995). Toward a critical race theory of education.   *University   of   Wisconsin-Teachers   college   record   97*(1).   Retrieved   from www.unco.edu/cebs/diversity/pdfs/towardacrteduca.pdf

Ladson-Billings, G. (2001). Teaching and cultural competence: What does it take to be a successful teacher in a diverse classroom? *Rethinking schools online, 15* (4), 1-5.

Michael, M. & Miller, K. (2011). Co-teaching in Ohio's teacher education programs. *The Ohio Journal of Teacher Education, 24* (1), 29-35.

National Board for Professional Teaching Standards. *What teachers should know and be able to do*. Retreived from www.nbpts.org/sites/default/files/what_teachers_should_know.pdf

National Council for Cultural Competence (2014). *Definitions of Cultural Competence*. Retrieved from www.ncccurricula.info/culturalcompetence.html

Neal L. I., & Crawford L. (2010). Foreword: Multiple voices advocates for educational equity and social justice. *Journal of praxis in multicultural education, 5*(1), 3-5.

Pai, Y. (1990). *Cultural foundations of education*. New York: Merrill/Macmillan.

Plecki, M., Elfers, A.M., & Nakamura, Yugo (2012). Using evidence for teacher education program improvement and accountability an illustrative case of the role of value-added measures. *Journal of teacher education, 63 (*5), 318-334.

Pugash, M.C. & Blanton, L.P. (2009). A framework for conducting research on collaborative teacher education. *Teaching and teacher education, 23*, 575-582.

Quappe, S. & Cantatore, G. (2003). What is cultural awareness, anyway? How could I build it? *Curiosity learning center.* Retrieved from www.culturosity.com/articles/whatisculturalawareness.html.

Ramsden, P. (1992). *Learning to Teach in Higher Education*. New York: Routledge.

Rego, M.A.S., & Nieto, S. (2000). Multicultural/intercultural teacher education in two contexts: Les-sons from the United States and Spain. *Teaching and teacher education, 16*, 413-427.

Singer, E. (1988). *What is cultural congruence, and why are they saying such terrible things about it?* (Occasional Paper). East Lansing, MI: Institute for Research on Teaching.

Sleeter, C.E., & Grant, C.A. (1988). *Making choices for multicultural education: Five approaches to race, class, and gender.* Columbus: Merrill Publishing Company.

Winerman, L. (2011). Where's the progress? *American Psychological Association, 42* (9)*.* Retrieved from www.apa.org/monitor/2011/10/achievement-gap.aspx

Winkelman, M. (2005). *Cultural awareness, sensitivity & competence*. Peosta, IA: Eddie Bowers Publishing Co., Inc.

Young, T. & Knestrict, T. (2012). Preparing better teachers: using collaboration in preservice education. *Professional development new horizons journal, 10* (1), 1-18.

Zeichner, K. (1995). Beyond the divide of teacher research and academic research. *Teachers & Teaching, 1,* 153-172. (Translated into Portuguese and published in Cartografias Do   Trabalho   Do-cente edited by C. Geraldi, D. Fiorentini, & E. Pereira.)

Zima, B.T., Bussing, R., Freeman, S., Yang, X., Belin, T.R., & Forness, S.R. (2000). Behavior prob-lems, academic skill delays and school failure among school-ages children in foster care: Their relationship to placement characteristics. *Journal of child and family studies, 9* (1), 87-103.