

A Quasi-Experimental Pre-Post-Test Design of the Impact Culturally Relevant Pedagogy has on  
Teaching in an Urban Education Setting

By  
Kimberly E. Ramer

Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education

May 2021

Goucher College  
Graduate Programs in Education

## **Table of Contents**

List of Tables	ii
Abstract	iii
I. Introduction	1
Statement of the Problem	4
Statement of Research Hypothesis	4
Operational Definitions	4
II. Literature Review	5
Background of Traditional Curriculum and Teacher Candidates	5
Implications of Teaching Traditional Curriculum in an Urban Education Setting	6
New Teaching Strategies	7
Culturally Competent Teachers	11
Benefits of Culturally Relevant Pedagogy	12
III. Methods	13
Design	13
Participants	13
Instrument	14
Procedure	13
IV. Results	16
V. Discussion	18
References	21
Appendix A	24

### **List of Tables**

1. Mean scores on the pre-and post-test	16
2. Mean scores on the pre-and post-test by race/ethnicity	17
3. Population of Students' Statistics (Gender)	17

## **Abstract**

The purpose of this study was to discover how being a teacher in an urban education setting required a different style of teaching and the implementation of various teaching methods. The design of this study was a quasi-experimental pre-post-test design. The study used Carnegie Learning mathematics curriculum assessment for both the pre-test and post-test and the culturally relevant pedagogy was implemented over the course of three weeks. The population that was of interest for this study was a class of high school students in the mathematics content area of Algebra I in an urban school setting. The results of the study indicated that implementing culturally relevant pedagogy in an urban education setting showcased a substantial increase in achievement from the pre-test to the post-test. It will be beneficial for future research to continue in this area of culturally relevant pedagogy with the possible focus on an in-person learning environment with differential selection.

# **CHAPTER I**

## **INTRODUCTION**

### **Overview**

When you think of a competent teacher candidate, what kind of individual comes to mind? An individual who is accredited? Effective? Can teach the content effectively to hopefully increase student achievement? All these attributes are what teacher education programs hope to create. However, despite the reality that these goals are being met and the content knowledge of teacher candidates is increasing steadily, there has been relatively little change in K-12 students' outcomes (Morton, Jackson, & Jackson, 2020). Many scholars have theorized why there has been little change in student achievement levels across the past few decades. A few of the theories include racial mismatch, educational realism, and lack of cultural proficiencies among possible teacher candidates who want to teach various cultural backgrounds of students in diverse educational settings. The current state of mismatch between teacher and student demographics as well as persistent gaps in achievement has turned the spotlight on multicultural education and its outcomes for learners today (Herrera, Holmes, & Kavimandan, 2012).

Research was conducted involving the most recent data and demographics collected through Harford County Public Schools to showcase the implications that cultural incompetence has on the urban education population. In 2019, Harford County Public Schools published the Executive Summary that was reported and analyzed by the Maryland Department of Education (MSDE). This document outlines specific demographic information involving the student population in the county school system. About 36% of the county student population consists of students of various cultures and ethnicities showcasing between a 0.3% - 1.0% increase in various cultures migrating into the school system

since 2014. When correlating school demographics to student achievement, one important change reported by MSDE was poverty. When looking at achievement in mathematics regarding state assessments, MSDE reported that the Black/African American student population and the Economically Disadvantaged student population were the only two categories that did not meet the annual target percentage for achievement and showcased improvement from the 2018 school year in mathematics. In the category of graduation rates, 17.76% of Black/African American students do not graduate in a 4-year high school program.

When looking at the Civil Rights Data Collection for Harford County Public Schools reported by MSDE, four components were reported in urban schools that affected the school climate more dramatically than other schools in the district that were not labeled as an urban school: Chronic Absenteeism, Student Enrollment, Incidents of Violence, and Referrals to Law Enforcement.

Based on the data and demographics presented prior, it is abundantly clear that the achievement gap is not mainly focused on the academics of students but a combination of academics, home-life, cultural competence, and school culture (Kumar, Zusho, Bondie, 2018). To close the current achievement gap, the components that created the achievement gap need to be addressed, studied, and valued in the classroom. By not recognizing a student's experiences outside of the school setting, the educator can hinder their learning. The work to become truly effective educators in urban schools requires a new approach to teaching that embraces the complexity of place, space, and their collective impact on the psyche of urban youth through the use of a method called Culturally Relevant Pedagogy (Embin, 2016). Culturally Relevant Pedagogy is a theory and practice that works to change the power dynamics in a classroom, especially classrooms where white educators teach students of color. This researcher argues that

curriculum in the classroom should be aimed at responding to the students in each individual classroom and what they are going through in their lives, not just perceptions of what others think to be the reality of those neo-indigenous students. In other words, an educator learns from the student how they need to be taught versus implementing and teaching the standard curriculum. Most importantly, implementing culturally relevant pedagogy begins with the acceptance of the often overlooked fact that there are cultural differences between students and their teachers that make it difficult for teachers to be reflective and effective, while providing a set of steps that allow the misalignments to be overcome (Epstein, Mayorga, & Nelson, 2011).

This researcher delved into the thought process of how implementing various strategies under the realm of culturally relevant pedagogy with the current curriculum correlates with student achievement in an urban education setting. It was noted that culturally relevant pedagogical strategies are currently not being implemented in the urban educational setting that she is currently teaching in along with a lack of resources that other educators could use as a basis to start implementing culturally relevant pedagogical strategies.

It was further noted that the correlation between the achievement gap in students who attend an urban school was more distinct than those students who attend a non-urban school in the same district. When this researcher was hired to work at an urban school in the Harford County Public Schools district, she was immediately overwhelmed with the amount of culture and lack of preparation that came with the teaching accreditation and certification she possessed. She also was not prepared for the lack of knowledge she had in the various backgrounds, languages, and situations her students came from. This impacted her ability to teach the standard curriculum with ease and confidence as she noticed there was a disconnect between her, her students, and the curriculum itself. While being culturally competent should be an expectation of all teachers

when becoming accredited through a higher educational institution, it is important to highlight that there also needs to be competency in various teaching strategies that are exclusive to students who attend an urban school setting. By conceptualizing and teaching to the child's cultural understanding, the achievement gap that is currently prevalent involving students of various cultural backgrounds, could be minimized.

### **Statement of Problem**

The purpose of this study was to discover how being a teacher in urban education requires a different style of teaching and various teaching strategies.

### **Hypothesis**

The null hypothesis reflected that culturally relevant pedagogy methods do not influence student achievement as measured by an end of unit assessment in urban education.

### **Operational Definitions**

The independent variable in this study was the various pedagogical strategies and teaching styles using culturally relevant pedagogy. ***Culturally Relevant Pedagogy*** is an approach to teaching that considers the unique cultural backgrounds of youth. Culturally Responsive Pedagogy focuses on teachers' acceptance of their specific cultural heritage and that of the school and curriculum as it relates to the culture of their students.

The dependent quantity of this study was ***mathematical ability***. This was measured via a unit assessment from the Algebra I Carnegie Learning curriculum.



## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This literature review discusses the purpose of this study of discovering how being a teacher in urban education requires a different style of teaching and a variety of teaching methods. The first section explores the background of traditional curriculum currently being implemented in schools. The second section discusses the implications of teaching the traditional curriculum in an urban education setting. The third section discusses new teaching strategies: reality pedagogy, hip-hop pedagogy, Culturally Responsive Pedagogy and Culturally Relevant Pedagogy. The fourth section discusses how to implement the new teaching strategies effectively. The fifth section discusses how teachers become culturally competent when teaching in urban education. The sixth, and final, section discusses the benefit of Culturally Relevant Pedagogy.

#### **Background of Traditional Curriculum and Teacher Candidates**

Teachers today stand in front of a classroom, present the content through a lecture-based approach, and give some form of assessment throughout the instructional period to assess student comprehension and understanding of what was presented. Students sit at their desk facing the board, writing utensil in hand, copy the notes down in their notebook or on a piece of paper, and try their best to present a level of understanding of the content being taught.

Since the 1900's, the United States government and individual states have adopted content standards that require specific information to be covered in public education curricula (Hornbeck, 2018). Content standards are based on curriculum that is created by state departments of education and encouraged by the federal government. This curriculum often teaches fact-

based knowledge as the end-all goal in learning and creates tests that assess specific data from standards.

To focus on student progress, teacher education programs have been working to produce teacher candidates that know the subject matter and can teach it effectively, often through the accreditation process of the National Council for Accreditation of Teacher Education and others. A large majority of pre-service and current teachers are taught the basics of curriculum, assessments, and content-related material, with relatively little emphasis on behavior management, classroom culture, and relationship building (Morton, et al., 2020). Despite the reality that these goals are being met and the content knowledge of teacher candidates is increasing steadily, there has been relatively little change in K-12 student outcomes.

### **Implications of Teaching Traditional Curriculum in an Urban Education Setting**

Research in education has indicated that teachers who are qualified are not necessarily effective educators (Embin, 2011). Such teaching and traditional curriculum practiced in schools today do not prove to be effective in urban education. Traditional teaching and learning in classrooms focus on textbooks as the primary materials of instruction and teachers as didactic instructors who disseminate mainstream versions of various content knowledge (Epstein, et al., 2011). Many scholars have theorized why there has been little change in student achievement levels across the past few decades. A few of the diagnoses include racial mismatch, educational realism, and lack of cultural proficiencies (Kumar, et al., 2018). As a result of content standards being essentially placed into broad statements, which can be damaging to the understanding of key historical events and ideas, the content standards for various curriculum, such as history, present topics such as the Civil Rights Movement as a historical event in a “vacuum” (Hornbeck,

2018). Because of this, teachers in an urban education setting are not relating the content and/or curriculum to the student.

Teachers lack the cultural understanding of the child as well. A lesson could be properly developed and include all highly effective activities, materials, instruction, and management strategies that correlate with the curriculum. However, in an urban education classroom, teaching any subject, curriculum, and/or lesson requires much more than the possession of content knowledge. Effective teaching requires both a deep understanding of the subject matter and a profound understanding of the cultural backgrounds of students, particularly in urban settings (Embin, 2011).

### **New Teaching Strategies**

#### **Culturally Relevant Pedagogy**

Culturally relevant pedagogy is an approach to teaching that considers the unique cultural backgrounds of youth. Cultural Relevant Pedagogy is a guide to the collective empowerment, not the individual empowerment of students and situates it within three basic propositions: (1) Students must experience academic success; (2) students must develop and/or maintain cultural competence; and (3) students must develop a critical consciousness through which they challenge the status quo of the current social order (Ladson-Billings, 1995). Teachers must be able to encourage students to interact with their surrounding culture in a meaningful and lasting way. Teachers are only effective if they know how to deliver content and explore it more deeply on their own. This brand of pedagogy advocates for a willingness to move beyond what is given and into aspects of the students' lifeworld that can be brought into the classroom (Embin, 2011).

## **Culturally Responsive Pedagogy**

Culturally relevant pedagogy is often used interchangeably with culturally responsive pedagogy, which focuses on teachers' acceptance of their specific cultural heritage and that of the school and curriculum as it relates to the culture of their students (Epstein et al., 2011).

Culturally responsive teachers also use constructivist principles in teaching. They elicit student's pre-instructional knowledge and beliefs, connecting new content and themes to students' existing understandings, and provide ongoing opportunities for students to incorporate new and more complex concepts into existing frameworks. Teachers also challenge students' misconceptions, encouraging students to conceptualize relationships, and recognize multiple causes and consequences.

## **Reality Pedagogy**

Reality pedagogy, like culturally relevant pedagogy, is an outgrowth of research conducted in urban classrooms and focuses on the cultural understanding of students within a particular social space (Embin, 2011). Reality pedagogy picks up a focus on providing students and teachers with opportunities to discuss in school the inequities students experience both within and beyond the classroom (Embin, 2009). Reality pedagogy functions to develop students' consciousness about the sociopolitical factors that affect their teaching and learning. Reality pedagogy meets its goals with a set of five tangible tools that students and teachers engage in together to improve teaching and learning in an urban education setting that focuses explicitly on understanding the realities of youth within a particular classroom and supports the teacher in utilizing an understanding of these realities as an anchor for instructional delivery (Embin, 2016).

### **Co-generative Dialogues and Hip-Hop Pedagogy (Cyphers)**

These dialogues are structured to emulate the ways that many urban Black youth communicate when they are engaged in an aspect of urban culture called the cypher. The cypher promotes communal engagement and can cultivate expression, competition, imagination, and creativity (Freas, & Guzman, 2020). Cogens take structures from the cypher and then enhance them by nesting the dialogues in what is happening in the classroom (Embin, 2011). Cogens occur with the goal of reaching collective decisions about the rules, roles, and responsibilities that govern students' lives and lend themselves to discussions with students about the inhibitors to their engagement in the classroom (Bridges, 2011). Co-generative Dialogues stem from Hip-Hop Pedagogy which houses the fundamental belief of culturally competent teachers to encourage urban youth to make meaning of, and more fully engage in, their educational journeys while creating classroom contexts that normalize their orientation toward service to humanity, self-awareness, social justice, and community activism.

### **Co-teaching**

This practice usually involves a veteran and novice teacher in a classroom. In terms of reality pedagogy, a role reversal of sorts occurs, and the student is declared the expert of the pedagogy while the teacher becomes the novice who is learning how to teach (Levy, 2019). This process moves beyond a superficial rendering of traditional teaching. The student is given all of the responsibility of the teacher and allowed to teach in a way that he or she feels is relevant to other students in the classroom who share the same cultural background (Embin, 2011).

## **Cosmopolitanism**

Cosmopolitanism is a philosophical construct that, when described in reality pedagogy, becomes a tangible approach to transforming human roles in social settings (Embin, 2011). In an urban classroom, cosmopolitanism begins with the teacher identifying the nontraditional roles and responsibilities of the student role of learner but that support the smooth operation of the classroom (Levy, 2019). Within the classroom, there are roles that students can hold that ensure that students develop a connection to the classroom and a desire to learn within it.

## **Context**

Context describes a set of practices that revolves around bringing artifacts into the classroom. These artifacts have some significance in the physical space that students inhabit outside of the classroom and traditionally may have little to no value within the classroom (Embin, 2011). These artifacts serve as anchors for classroom instruction and the connector between the student's world outside the classroom and the world within the classroom (Buffington & Day, 2018).

## **Content**

Content refers to the academic work topics that the teacher is responsible for covering within the curriculum (Buffington & Day, 2018). It involves teachers' willingness to both expose and embrace the limitations in their content knowledge within the classroom (Embin, 2011). This process involves the spaces within the classroom from the revision of topics where the teacher is not the expert and where the student and teacher can explore the content together (Levy, 2019).

## **Culturally Competent Teachers**

A culturally competent teacher is one who has the cultural knowledge and familiarity with the history, values, and behavioral expectations of cultural groups represented in the school's student body; displays cultural awareness of one's own and others' cultures and demonstrates an understanding of the centrality of culture in informing individuals' cognitions, emotions, and behaviors; and displays cultural sensitivity that reflects openness and flexibility without placing value judgments on differences when working with others (Kumar et al., 2018).

Three broad propositions about the actions of culturally competent teachers occur concurrently in practice: (1) the conceptions of self and others, (2) the way social relations are structured, and (3) their conceptions of knowledge (Sirrakos & Fraser, 2017). It is necessary that teacher educators reexamine their beliefs about who can and should teach, and how transformative pedagogy might be enacted. Additionally, schools of education and school districts must reevaluate their beliefs about teaching and learning by pushing past archaic conceptions of the dispositions of desirable teachers and students (Bridges, 2011).

Cultural competence is an approach to responding to the issues that emerge in a diverse environment. To become culturally competent, teachers should participate in skillfully crafted professional development. The professional development should be followed up with multiple opportunities for participants to reflect on their behaviors as relates to the cultural proficiency continuum and their own culture. Continuous reflection and self-exploration outside of your own cultural sphere of influence is key to sustaining and growing in cultural proficiency (Taher, Mensah, & Embin, 2017).

### **Benefits of Culturally Relevant Pedagogy**

For students of color to feel academically efficacious and experience academic success, they need to perceive academic success as inherent to their cultural identity. Research generally finds a positive link between academic competence and culturally relevant practices.

Engagement in culturally relevant pedagogy is associated with increases in students' motivation to learn, interest in curricular content, and sense of academic competence (Kumar et al., 2018).

Studies have demonstrated that culturally relevant pedagogy is associated positively with an increase in students' engagement in and efficacy for learning and critical thinking, with a reduction in behavioral problems. Demonstrating care and building learning communities lies at the heart of culturally relevant pedagogy (Embin, 2016).



## **CHAPTER III**

### **METHODS**

#### **Design**

The purpose of this study was to discover how being a teacher in an urban education setting required a different style of teaching and the implementation of various teaching methods. The design of this study was a quasi-experimental pre-post-test design. The study used Carnegie Learning mathematics curriculum assessment for both the pre-test and post-test and the culturally relevant pedagogy was implemented over the course of three weeks.

#### **Participants**

The population that was of interest for this study was a class of high school students in the mathematics content area of Algebra I in an urban school setting. The sample group was selected through non-random sampling. The sample that was used in this study were students in grades nine and ten from an urban school. There were twenty students who participated in this study. The participants varied in ability (if they have a federal disability coding), race (White, African-American, Multi-Racial, Hispanic, etc.), age (between 15-20 years of age), grade level (Grades 9 through 12), and gender (female or male).

#### **Instrument**

The instrument that was utilized was the Carnegie Learning Mathematics Curriculum Assessment. This instrument was created by Algebra I content specialists. Carnegie Learning's blended solutions are among the most carefully studied mathematics curricula and meet Tier 1 "Strong" evidence standards based on the Every Student Succeeds Act Levels of Effective Evidence (Pane, Griffin, McCaffrey & Karam, 2014). The U.S. Department of Education's Institute of Education Sciences' (IES) What Works Clearinghouse recognizes this study as

meeting their evidence standards without reservations (Pane et al., 2014). It contained Algebra I content related to solving inequalities using properties of equality, graphing on a number line, graphing on a coordinate plane, and flipping the inequality sign when multiplying or dividing by a negative value. The pre-test and post-test results are shared in Appendix A at the end of this paper.

### **Procedure**

Once the sample group was selected and the instrument used was piloted, the pre-test was administered to the research participants. All participants were given the same set of directions, resources, and time to complete the pre-test. They were instructed to utilize their resources, notes, and appropriate math tools to help them complete the pre-test in the time allotted. Students were given 80 minutes to complete the assessment. Once the pre-tests were submitted, the results were reviewed by the researcher. A discussion of the results is presented in Chapter IV.

Culturally relevant pedagogy teaching styles and strategies were embedded in the Algebra I curriculum and were implemented for three weeks. Students were exposed to and participated in co-generative dialogues, co-teaching, cosmopolitanism, and content culturally relevant pedagogy strategies.

Co-generative dialogues were utilized to help the sample group make meaning of inequalities and the procedures for solving them. Participants created acronyms for the equality properties used to solve inequalities and created hand gestures for remembering which direction the inequality symbol faces when solving or graphing an inequality statement. The sample group was free to be creative and create a learning mechanism that would help establish comprehension of the content being learned in a way they understand.

Co-teaching was utilized during week three of the unit. The sample group was asked to facilitate and teach what they learned of inequalities to demonstrate competence, proficiency, and mastery of the concept that they took initiative in learning. The sample group constructed and participated in their own learning by creating the content with help from resources that were provided and walking one another through the process of solving the problems that they had a hand in creating.

Cosmopolitanism constructed the roles of both the students and teachers in the classroom setting. Students were encouraged to participate in their own learning by becoming the teacher themselves. They shared their ideas, creations, enthusiasm, questions, and misconceptions actively throughout the delivery of the content. The roles in the classroom setting were obsolete and the students gradually became the teachers themselves with basic guidance from the instructors when necessary.

Content was shared with the sample group at the beginning of the unit. The sample group was encouraged to use their toolbox of skills embedded in their mindset to help them learn this concept in a way that made sense to them. While limitations were present based on the ability levels of the sample group, exploration of the content between both the teachers and students using various educational resources accessed a deeper level of understanding and appreciation of the concept of inequalities.

Once the sample group finished the focused unit of study, the post-test was administered to the research participant.

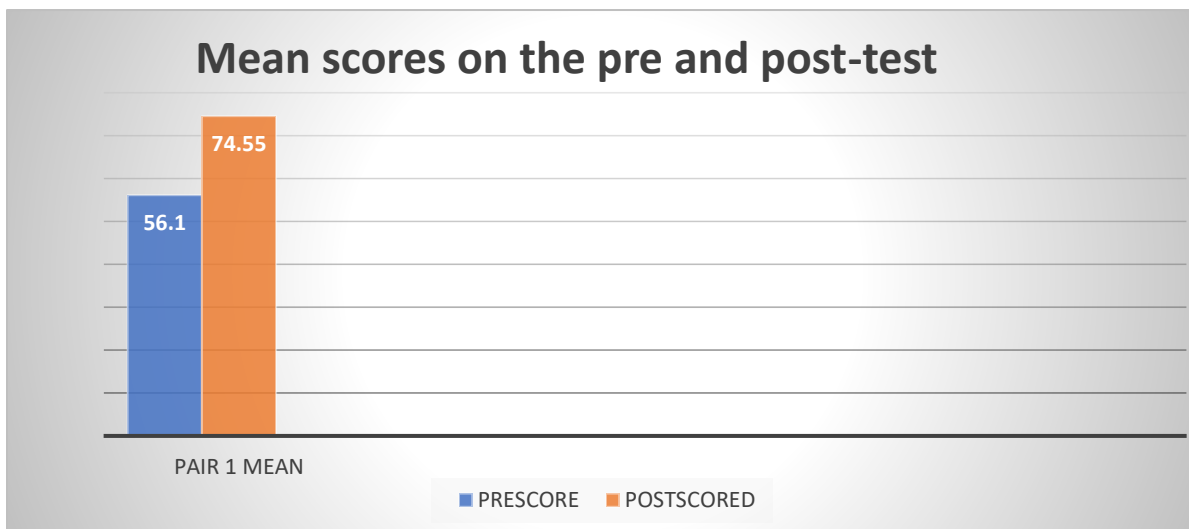
## CHAPTER IV

### RESULTS

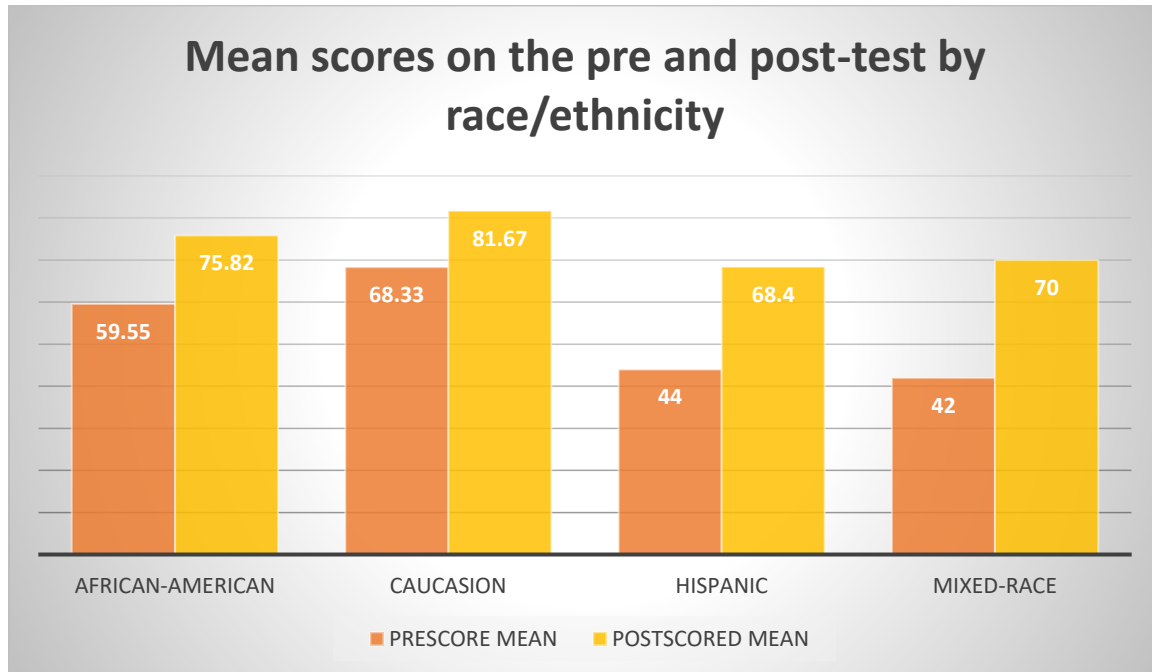
The purpose of this study was to discover how being a teacher in an urban education setting required a different style of teaching and the implementation of various teaching methods. The study used Carnegie Learning mathematics curriculum assessment for both the pre-test and post-test and the culturally relevant pedagogy was implemented over the course of three weeks. The population that was of interest for this study was a class of high school students in the mathematics content area of Algebra I in an urban school setting.

Data presented in the figures below depict the results from the study. The mean score on the pre-test was 56.10, which significantly increased to 74.5 on the posttest,  $t(19)=-7.51$ ,  $p<.05$ .. When comparing the mean scored of the pretest and posttest results in terms of gender, females scored higher on both the pretest and posttest than males. When looking at the mean scores for race, Hispanic and Mixed-Race students scored the lowest on both the pre-test and post-test compared to African American and Caucasian students. All groups experienced an increase on the post-test.

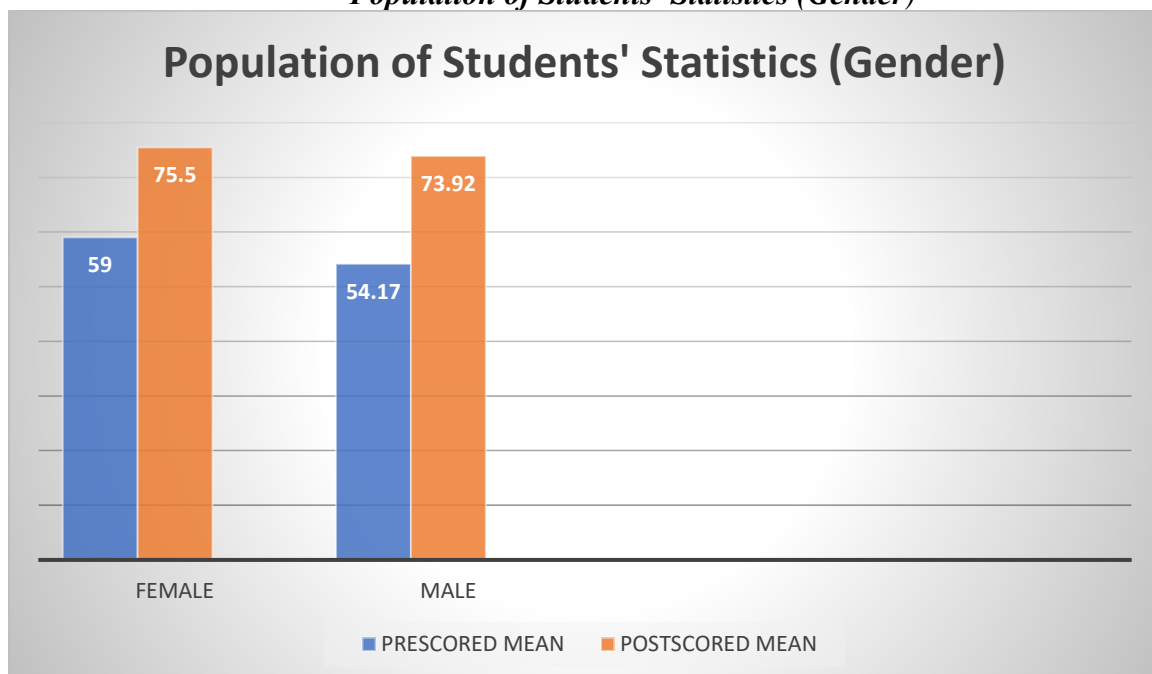
**Figure 1**  
***Mean scores on the pre and post-test***



**Figure 2**  
**Mean scores on the pre and post-test by race/ethnicity**



**Figure 3**  
**Population of Students' Statistics (Gender)**



## **CHAPTER V**

### **DISCUSSION**

This study attempted to discover how being a teacher in an urban education setting required a different style of teaching and the implementation of various teaching methods. Analysis of the data indicated that the null hypothesis was not supported as the mean score of the pre-test increased significantly on the post-test once culturally relevant pedagogy strategies were implemented. The results would indicate that students in an urban education setting who are exposed to culturally relevant pedagogical strategies achieve a greater understanding of the content being taught to them than those students in an urban education setting who do not.

#### **Implications of Results**

The findings of this study were statistically significant enough for the researcher to conclude that the null hypothesis should be rejected based on the significant increase in mean scores between the pre-test and post-test. When looking at the mean scores for gender, even though females scored substantially higher on both the pre-test and post-test than males overall, both females and males demonstrated a significant increase between their pre-test and post-test scores. When looking at the mean scores for race, even though Hispanic and Mixed-Race participants scored the lowest on both the pre-test and post-test compared to African American and Caucasian participants, all groups experienced an increase on the post-test.

#### **Theoretical Consequences**

The results of this study support the theories addressed in Chapter II that implementing culturally relevant pedagogy in an urban education setting results in increased achievement. Morton et al., (2020) stated that proposed benefits are boundless for teachers and students when culturally relevant pedagogy is integrated. For teachers, these benefits include increased

knowledge of the self, acceptance of the complexities of diversity, and increased consistency in application of high standards for all students. As the research suggests in this study, the teacher benefits by implementing culturally relevant pedagogy that directly influence student outcomes by allowing students to engage in activities that are more culturally relevant in environments that intentionally minimize distractions caused by racial mismatch.

Furthermore, another study conducted and analyzed by Sirrakos and Fraser (2017) noted that the post-test data from the QuALESA scale, when compared to the pre-test data, showcased that effect sizes measured in pre-test were now obsolete in the post-test. Both researchers concluded that culturally relevant pedagogy is an effective method of learning when it comes to marginalized students.

Finally, a study conducted by Kumar et al., (2018) stated that culturally responsive and relevant education (CRRE) scholars argue that for students of color to feel academically efficacious and experience academic success, they need to perceive academic success as inherent to their cultural identity. Studies to date have been focused almost exclusively on low socioeconomic status, thus the relationship between cultural and academic competence is extremely important beneficial to the academic success and achievement in urban education settings.

### **Threats to Validity**

In this particular study, multiple threats to validity were noted. The study was implemented through a virtual education setting as a pandemic was taking place at the time of the study being conducted. If the study was to be conducted in-person, the results could yield different results. Another threat was differential selection. Participants in the study were purposely placed in the same group regardless of their gender or race. Over time, based on the

Harford County Public Schools Algebra I curriculum guide, the participants in the study would have possibly showcased a level of improvement between the pre-test and post-test.

### **Connections to Previous Studies/Existing Literature**

This current study on culturally relevant pedagogy in an urban education setting connects to the previous literature that was put forward by Embin (2011) that acknowledging cultural differences that exist in classrooms among teacher, curriculum, school, and student, and the reconciliation with these differences through validation of the culture of youth, is the point from which teaching is enacted. The focus is the validation of youth culture and its consideration in teaching youth of diverse backgrounds through their culture. Furthermore, Embin states that the vantage point of Black youth is unique, complex, and expressed differently within different social settings, like education. The results of the researcher's study on culturally relevant pedagogy and student achievement by its participants, one would be able to infer that culturally relevant pedagogy is critical in producing achievement in urban youth.

The results of this study can also be linked to Epstein et al., (2011) research on implementing culturally relevant pedagogy methods in a secondary urban education classroom setting. They studied the impact on implementing culturally relevant pedagogy strategies with a Social Studies class and how achievement was impacted. It was interesting to note that the researchers were not given the flexibility to implement culturally relevant pedagogy methods when delivering the Social Studies content required by the school. While the study showcased a level of positive outcomes, the researcher noted that there were substantial limits to students understanding of various cultural conversations that were held when implementing culturally relevant pedagogy in conjunction with the social studies curriculum. The research in this study suggests that culturally relevant pedagogy requires additional training with additional research



that could help produce a more competent teacher who can facilitate culturally relevant pedagogical methods in their classroom. Therefore, achievement could not be measured in its entirety.

### **Implications for Future Research**

The results of this research provide one with data that suggests implementing culturally relevant pedagogy in an urban education setting produces achievement and academic success. This particular study was conducted during the COVID-19 pandemic through a virtual education setting and randomization was unable to be utilized as the participants were already assigned to the group sample. When implementing future research studies, results of the data obtained could show a substantial difference in the mean scores obtained as well as raise questions as to whether implementing culturally relevant pedagogy showcases a substantial increase in achievement in an urban education setting. More importantly, future research could take place in an in-person instructional environment with a randomly sampled population in an urban education setting versus being implemented in a virtual education setting with no differential selection.

### **Conclusions**

It was the goal of the researcher to establish a connection between the teaching method of culturally relevant pedagogy and student achievement in an urban education setting. The results of the study indicated that implementing culturally relevant pedagogy in an urban education setting showcased a substantial increase in achievement from the pre-test to the post-test. It will be beneficial for future research to continue in this area of culturally relevant pedagogy with the possible focus on an in-person learning environment with differential selection versus a virtual setting with no differential selection implemented.

## REFERENCES

- Buffington, M. L., & Day, J. (2018). Hip-hop pedagogy as culturally sustaining pedagogy. *Arts*, 7(4), 97. doi:<http://dx.doi.org.goucher.idm.oclc.org/10.3390/arts7040097>
- Bridges, T. (2011). Towards a pedagogy of hip-hop in urban teacher education. *The Journal of Negro Education*, 80(3), 325-338,435. Retrieved from <https://goucher.idm.oclc.org/login?url=https://www-proquest-com.goucher.idm.oclc.org/docview/903303320?accountid=11164>
- Embin, C. (2009). Reality pedagogy: Hip-hop culture and the urban science classroom. In W.M. Roth (Ed.) *Science education from people for people: Taking a stand(point)* (pp.82-101). New York, NY: Routledge.
- Embin, C. (2011). Moving beyond the boat without a paddle: Reality pedagogy, black youth, and urban science education. *Journal of Negro Education*, 80(3), 284–295.
- Embin, C. (2016). For White Folks Who Teach in the Hood ... and the Rest of Y'all Too. *Pedagogy and Urban Education*. Boston: Beacon Press.
- Epstein, T., Mayorga, E., & Nelson, J. (2011). Teaching about race in an urban history class: The effects of culturally responsive teaching. *Journal of Social Studies Research*, 35(1), 2-21. Retrieved from <https://goucher.idm.oclc.org/login?url=https://www-proquest-com.goucher.idm.oclc.org/docview/866770560?accountid=11164>
- Freas, A., & Guzman, J. L. (2020). Blindspotting: Resisting academic norms by using hip-hop sensibilities to develop educator praxis for the people. *Journal of Applied Research in the Community College*, 27(1), 109-116. Retrieved from <https://goucher.idm.oclc.org/login?url=https://www-proquest-com.goucher.idm.oclc.org/docview/2401888474?accountid=11164>

- Herrera, S.G., Holmes, M.A., & Kavimandan, S.K. (2012). Bringing Theory to Life: Strategies That Make Culturally Responsive Pedagogy a Reality in Diverse Secondary Classrooms. *International Journal of Multicultural Education*, 14(3).
- Hornbeck, D. (2018). Democratic representation in state content standards: Leaving out students of color. *The High School Journal*, 101(4), 251.  
doi:<http://dx.doi.org.goucher.idm.oclc.org/10.1353/hsj.2018.0014>
- Kumar, R., Zusho, A., & Bondie, R. (2018). Weaving Cultural Relevance and Achievement Motivation Into Inclusive Classroom Cultures. *Educational Psychologist*, 53(2), 78–96.  
<https://doi.org/10.1080/00461520.2018.1432361>
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32, 465-491.
- Levy, I. P. (2019). Hip-hop and spoken word therapy in urban school counseling. *Professional School Counseling*, 22(1)  
doi:<http://dx.doi.org.goucher.idm.oclc.org/10.1177/2156759X19834436>
- Morton, B. C., Jackson, K. M., & Jackson, M. J. (2020). The cultural inability of me: A conceptual framework for accommodating the roadblock in the mirror. *Taboo*, 19(4), 113-131. Retrieved from <https://goucher.idm.oclc.org/login?url=https://www-proquest-com.goucher.idm.oclc.org/docview/2456178662?accountid=11164>
- Pane, J.F., Griffin, B.A., McCaffrey, D.F., Karam, R. (2014). Effectiveness of Cognitive Tutor Algebra I at Scale. *Educational Evaluation and Policy Analysis*, 36(2), 127-144.
- Sirrakos, G., Jr, & Fraser, B. J. (2017). A cross-national mixed-method study of reality pedagogy. *Learning Environments Research*, 20(2), 153-174.  
doi:<http://dx.doi.org.goucher.idm.oclc.org/10.1007/s10984-016-9220-y>

Taher, T., Mensah, F. M., & Embin, C. (2017). Exploring the impact of reality pedagogy: Understanding its implementation on urban immigrant students. *Universal Journal of Educational Research*, 5(11), 1853–1862.

# Appendix A

Participant ID	Grade Level	Age	Race	Gender	Disability	Pre-Test Score	Posttest Score	
Participant 1	9	15	AA	F		46	66	
Participant 2	10	18	H	M	ELL	50	75	Grade Level Key:
Participant 3	9	15	C	F		79	95	9 - 9th Grade
Participant 4	9	14	AA	M		60	65	10 - 10th Grade
Participant 5	9	15	AA	F		65	68	
Participant 6	9	15	C	F	SLD	39	60	Race Key:
Participant 7	9	15	AA	M		45	60	AA - African-American
Participant 8	9	16	AA	M	SLD	82	89	H - Hispanic
Participant 9	9	18	AA	M		90	100	C - Caucasian
Participant 10	10	20	H	F	ELL	75	85	MR - Mixed Race
Participant 11	9	15	AA	M		45	80	
Participant 12	9	15	AA	M	OHI	40	68	Disability Key:
Participant 13	9	17	H	M	OHI	35	55	ELL - English Language Learner
Participant 14	9	15	C	M	SLD	87	90	SLD - Specific Learning Disability
Participant 15	9	15	AA	F		66	70	OHI - Other Health Impairment
Participant 16	10	15	MR	F	SLD	42	70	
Participant 17	9	14	H	M		35	65	Gender Key:
Participant 18	10	16	H	M	ELL/SLD	25	62	F - Female
Participant 19	9	15	AA	M	SLD	56	78	M - Male
Participant 20	9	14	AA	F		60	90	
						/100 points	/100 points	