

The Effects of Selected Demographic Factors on Teachers' Cultural Stereotypical Beliefs Regarding of Middle School Students

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Abstract:

The purpose of this study was to ascertain the influence of the variables gender, ethnicity and years of experience on the perceptions of teachers regarding stereotypical beliefs. The population for this study consisted of 96 middle school reading and mathematics teachers from middle schools located in urban school districts in Southern and Midwest sections of the United States. A questionnaire was developed to gather the data. The data revealed non-black American teachers had significantly more favorable perceptions regarding blaming the victim component of cultural stereotypical beliefs than Black American teachers. Also that male teachers exhibited more favorable perceptions regarding the oppression, pseudoscience, temporal changes and the heterodoxy components of cultural stereotypical beliefs than their female counterparts

Key Words: Cultural Stereotypical Beliefs; Perceptions of Middle School Teachers

1. Introduction

Many social, economic, and academic problems continue to face the African- American male in the public school arena. Often these problems lead to a negative outlook on life due to racism, frustration, despair, and dropping out of school (Rothstein, 2004). Each school year, African American students are assigned a new class schedule, lockers, textbooks, teachers, and, unfortunately, too often they are assigned cultural stereotypes.

Steele (1997) opined that a large share of white teachers lack the necessary knowledge regarding the culture of African-American students. Because of this lack of knowledge, African-American males face negative cultural stereotypes that portray members of their ethnic group as less intelligent than their European-American student peers. Simply stated, many teachers are not prepared to teach African-American students, due to the fact that they have low expectations of them (Au, 2011). Conversely, this lack of preparation may impact the African-American students' academic achievement.

Delpit (1995) contends that many teachers judge their students by making assumptions about what they can do based on stereotypes. He posited that if teachers can obtain knowledge of their students' lives outside the realms of the classroom, then they would have a better understanding of the student's strengths. Therefore, teachers who have insight into the typical African- American male's environment would then not participate in "teaching down" and "dumbing down" the curriculum (Delpit, 1995).

The attitudes and beliefs that teachers have about themselves and others are the framework for their classroom judgments and decisions.

In addressing the diversity in schools: Culturally responsive pedagogy, Villegas and Lucas (2002)) state that teacher self-reflection is an important factor in the instructional expectation they have for the academic achievement of African-American male students. Teachers should examine their attitudes as well as their values as they relate to the classroom environment; many of the attitudes are based on stereotypical beliefs. Self-reflection enables teachers to examine their biases and prejudices that relate to teacher expectation and the academic success of African-American male students. Unfortunately, if teachers have limited or negative experiences with other cultures, it can influence their students' opportunity to learn (Milner, 2005). Many educators advocate the use of multicultural programs in U.S. school systems due to the cultural mismatch and cultural discontinuity that occurs (Banks & McGee, 2009; Gay, 2000, Gorski, 2009; Ladson-Billings, 1994; Sleeter & Grant, 2007). Researchers believe that the multicultural programs allow teachers to learn more about their students' cultures and prepare them to provide better academic instruction.

These perceptions have been found to exist within teachers regardless of their social categories, such as gender, ethnicity and years of teaching experience. Thus, an empirical investigation regarding the influence of gender, ethnicity and years of teaching experience have on the perceived teachers' cultural stereotypical beliefs is warranted.

1.1 Purpose of the Study

The purpose of this study was to ascertain the influence of the variables gender, ethnicity and years of experience on the perceptions of teachers regarding stereotypical beliefs. Specifically, this study was concerned with the effects of the gender, ethnicity and years of experience on the six components of teachers' cultural stereotypical beliefs (blaming the victim, oppression, pseudoscience, temporal change, educability, and heterodoxy). Thus, it can be hypothesized that the variables gender, ethnicity and years of experience have significant influence on teachers' cultural stereotypical beliefs.

1.2 Theoretical Framework

The present investigation was based on the deficit thinking theory. The deficit thinking theory is a micro level of analysis emphasizing that students who fail in schools do so principally because of internal deficits or deficiencies (Valencia, 1997). Every educator involved with the school has a stake in the welfare of the students in the classroom, particularly the teacher. Thus, the way the teacher perceives the deficiencies of any group of students has a profound effect on how these students will perform academically within the classroom.

The deficit thinking theory asserts that teachers' low expectations of poor academically students have an impact on their educational success. The relevancy of the deficit thinking theory to this study is that it blame the students and their environment for their academic shortcomings in the classroom. Additionally, Valencia (1997) opined that deficit thinking theory further asserted that students of color have intellectual deficiencies or handicaps resulting from their family structure, linguistic background, and culture.

In reference to this study, the application of the deficit thinking theory would stress that teachers especially those who hold cultural stereotypical beliefs would have favorable perceptions regarding the academic deficiencies of African American male students. Therefore, it is assumed that these perceptions are made by teachers regardless of their social categories.

2. Methodology

2.1 Type of Research Design

A 2 x 2 x 2 factorial design (See Figure 1) was employed in this study whereas ethnicity (black and non-black), gender (female and male), and years of experience (15 years or less and 16 years or above) were the independent variables and the participant's cultural stereotypical beliefs (blaming the victim, oppression, pseudoscience, temporal changes, educability, and heterodoxy) were the dependent measures of the dependent variable. A factorial design is one in which "two or more variables are manipulated simultaneously in order to study the independent effects of each variable on the dependent variable, as well as the effects due to interaction among the several variables" (Ary, Jacobs and Razavieh, 2002).

	Black (C₁)		Non-Black (C₂)	
	Males B ₁	Female B ₂	Males B ₁	Females B ₂
A₁ 15 years	A ₁ B ₁ C ₁	A ₁ B ₂ C ₁	A ₁ B ₁ C ₂	A ₁ B ₂ C ₂
A₂ 16 years	A ₂ B ₁ C ₁	A ₂ B ₂ C ₁	A ₂ B ₁ C ₂	A ₂ B ₂ C ₂

Figure 1. 2x2x2 Factorial Design

2.2 Population and Research Setting

The population of this study consisted of 96 middle school reading and mathematics teachers from middle schools located in urban school districts in Southern and Midwest sections of the United States. School District A was part of nine regions and enrolled approximately one million students. School District B consisted of five independent school districts where most of districts are located in the suburban or semi-rural areas surrounding the metropolitan area.

2.3 Instrumentation

A questionnaire was developed since there was no standardized instrument appropriate for the particular purpose of this study. The procedures employed in developing the instrument were as follows:

1. Cultural stereotypical beliefs of middle school teachers were defined, and items were developed to measure them. These categories were constructed after a thorough review of the related literature.
2. The instrument was submitted to a group of educators and researchers on an individual basis for suggestions and recommendations. This assisted in establishing a degree of validity for the instrument.
3. The pilot study was conducted to aid in deciding whether certain items should be eliminated, added, or altered. Additionally, the pilot study was used to determine an estimation of the reliability for the instrument. For the percent study, an alpha coefficient of .72 was completed for pilot study.

The instrument was divided into three sections. The first section consisted of five (5) socio-demographic items. The second section of the instrument contained eighteen (18) items under the auspices of the six characteristics of the teachers' cultural stereotypical beliefs in the form of a Likert-type scale. The items in this section called for the participants in this study to check one of five fixed-alternative expressions: Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. Each of the aforementioned expressions was assigned the following weight (scores) for analysis purposes: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1). The third section of the instrument contained eight non-structured items pertaining to the numerical average grade score in mathematics and reading of middle school students by ethnicity.

2.4 Validity and Reliability

For the purpose of validity, the instrument was given to a group of public school administrators, researchers, and statisticians on an individual basis. They were asked to examine the items (content) of the instrument. The primary reason for this was to determine whether or not the instrument items measured the cultural stereotypical beliefs of middle school teachers. Once the authorities agreed that the questionnaire was a valid instrument for use in this study, a pilot test of the instrument was conducted.

The researcher used the reliability of internal consistency. In order to determine the reliability of internal consistency for the instrument, the Alpha Reliability Coefficient was employed. The final tabulation of data from the study yielded internal consistency reliability coefficients for the following dimensions (subtest) of the investigative instrument and the test as a whole.

- I. Blaming the Victim .73
- II. Oppression .81
- III Pseudoscience .82
- IV. Temporal Changes .66
- V. Educability .77
- VI Heterodoxy .58
- VII Test as a Whole .74

3. Results

Six statistical hypotheses were formulated and tested in this investigation. Hypothesis one stated that there is no statistically significant difference between blaming the victim component of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

As shown in Table 1, when the Three-Way Analysis of Variance (ANOVA) was computed for the middle school teachers' perceptions with regard to the blaming the victim component of stereotypical beliefs, there was a statistically significant difference found between the two ethnic groups, B main effect ($F = 10.396$, $df = 1/88$, $p < .01$) of middle school teachers. However, no statistically differences were found between the two gender groups, A main ($F = 1.797$, $df = 1/88$, $p > .05$) and the two years of teaching groups, C main effect ($F = 2.427$, $df = 1/88$, $p > .05$) regarding the blaming the victim component of stereotypical beliefs.

Additionally, results of the analysis of variance did not show significant interaction between the teachers' gender and ethnicity ($F = .579$, $df = 1/88$, $p > .05$), gender and years of teaching ($F = 3.414$, $df = 1/88$, $p > .05$) and gender, ethnicity and years of teaching ($F = .295$, $df = 1/88$, $P > .05$). Nevertheless, the joint effects of gender and ethnicity ($F = 9.042$, $df = 1/88$, $P < .01$) on the perceptions of teachers toward the blaming the victim component of stereotypical beliefs at the .01 level.

Further data analysis utilizing the mean results (See Table 2) revealed that non-black, middle school teachers had a significantly more favorable perception toward the blaming the victim component of stereotypical beliefs than their black, middle school counterparts. Additionally, the Scheffe' as a post hoc test (See Table 3) reported that male and female middle school teachers with 16 years of teaching experience or more and female teachers with 15 years or less of teaching possessed significantly more favorable perception scores than male teachers with 15 years of teaching experience or less with regard to the blaming the victim component of stereotypical beliefs. No other mean differences were observed.

Table 1

Analysis of Variance Summary Table for Gender, Ethnicity, Years of Teaching Experience and Blaming the Victim Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	221.823	7	31.689	3.993	.001 ***
A (Gender)	14.260	1	14.260	1.797	.184
B (Ethnicity)	82.510	1	82.510	10.396	.002 **
C (Years)	19.260	1	19.260	2.427	.123
A x B	4.594	1	4.594	.579	.449
A x C	71.760	1	71.760	9.042	.003**
B x C	27.094	1	27.094	3.414	.068
A x B x C	2.344	1	2.344	.295	.588
Within Groups	698.417	88	7.937		
Total	920.240	95			

** Significant at the .01 level
 *** Significant at the .001 level

Table 2
Mean Results Regarding the Blaming the Victim Component by Ethnicity

Main Effect	Mean	Standard Deviation
Ethnicity		
African American	5.44	3.10
Non-African American	7.29*	2.87

* Highest Mean

Table 3
Scheffe' Results Regarding the Blaming the Victim Component by Gender and Years of Teaching Experience

Male 15 yrs or less Mean One	Males 16 yrs or Above Mean Two	Female 15 yrs. Or less Mean Three	Female 16 yrs. Or above Mean Four	Observed Mean Difference
4.67	7.29			-2.62*
4.67		7.17		-2.50*
4.67			6.33	-1.66*
	7.29	7.17		.12
	7.29		6.33	.96
		7.17	6.33	.84

Scheffe' Critical Value = 1.56

*Significant at the .05 level

Hypothesis two stated that there is no statistically significant difference between oppression component of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

Shown in Table 4 are the Analysis of Variance results regarding the influence of gender, ethnicity and years of teaching experiences on the middle school teachers' perceptions toward the oppression component of stereotypical beliefs. Statistically significant differences were found between the perceptions of male and female middle school teachers ($F = 5.606$, $df = 1/88$, $P < .05$) at the .05 level. However, statistically significant differences were not found between ethnic groups ($F = .058$, $df = 1/88$, $P > .05$) nor two years of teaching groups ($F = .675$, $df=1/88$, $P > .05$) of middle school teachers toward the oppression component of stereotypical beliefs.

Moreover, gender and ethnicity, $A \times B$ ($F = 1.702$, $df = 1/88$, $P > .05$) gender and years of teaching, $A \times C$ ($F = .675$, $df = 1/88$, $P > .05$) and ethnicity and years of teaching, $B \times C$ ($F = 1.964$, $df = 1/88$, $P > .05$) did not significantly interact with regard to the oppression component of stereotypical beliefs. Nevertheless, a statistically significant interaction was found between teachers' gender, ethnicity and years of teaching experience toward the oppression stereotypical beliefs scores of middle school teachers ($F=5.606$, $df=1/88$, $P<.05$)

Further data analysis using the mean results (See Table 5) revealed that male middle school teachers had a more favorable perception toward the oppression stereotypical belief scores than female middle school teachers. Additionally, the Scheffe' as a post hoc test (See Table 6) indicated that black female middle school teachers with 15 years or less of teaching experience had significantly more favorable perceptions than non- black, female, middle school teachers with 16 years or more of teaching experience regarding the oppression component.

In addition, non- black, male, middle school teachers with 15 years or less of teaching experience exhibited more favorable perceptions than non- black, female, middle school teachers with 15 years or less of teaching experience and black, female, middle school teachers with 16 years or more of teaching experience. Also, non-black, male, middle school teachers with 16 years or more of teaching experience had more favorable perceptions than non-black, female, middle school teachers with 15 years or less of teaching experience and black, female, middle school teachers with 16 years or more of teaching experience. Finally, black, male, middle school teachers with 16 years or more of teaching experience possessed more favorable perceptions than their black female counterparts with the same number of years of teaching experience. No other mean differences were observed.

Table 4

Analysis of Variance Summary Table for Ethnicity, Gender, Years of Experience and the Oppression Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	72.656	7	10.379	2.327	.032*
A (Gender)	25.010	1	25.010	5.606	.020
B (Ethnicity)	.260	1	.260	.058	.810
C (Years)	3.010	1	3.010	.675	.414
A X B	7.594	1	7.594	1.702	.195
A X C	3.010	1	3.010	.675	.414
B X C	8.760	1	8.760	1.964	.165
A X B X C	25.010	1	25.010	5.606	.020*
Within Groups	192.583	88	4.461		
Total	465.240	95			

*Significant at the .05 level

Table 5

Mean Results Regarding the Oppression Component by Gender

Main Effect	Mean	Standard Deviation
Gender		
Male	7.71*	2.48
Female	6.68	1.78

*Highest Mean

Table 6

Scheffe' Results Regarding the Three-Way Interaction Between Gender, Ethnicity and Years of Teaching Experience on the Oppression Component

Mean Comparison	Mean Comparison
$BM_{15}-BF_{15} = 7.17-8.08 = -.91$	$NBM_{15}-BM_{16} = 8.25-7.58 = .67$
$BM_{15}-NBM_{15} = 7.17-8.25 = -1.08$	$NBM_{15}-BF_{16} = 8.25-5.75 = 2.50^*$
$BM_{15}-NBF_{15} = 7.17-6.00 = 1.17$	$NBM_{15}-NBM_{16} = 8.25-7.83 = .43$
$BM_{15}-BM_{16} = 7.17-7.58 = -.38$	$NBM_{15}-NBF_{16} = 8.25-6.92 = 1.33$
$BM_{15}-BF_{16} = 7.17-5.75 = 1.42$	$NBF_{15}-BM_{16} = 6.00-7.58 = -1.58$
$BM_{15}-NBM_{16} = 7.17-7.83 = -.66$	$NBF_{15}-BF_{16} = 6.00-5.75 = .25$
$BM_{15}-NBF_{16} = 7.17-6.92 = .25$	$NBF_{15}-NBM_{16} = 6.00-7.83 = -1.83^*$
$BF_{15}-NBM_{15} = 8.08-8.25 = -.17$	$BM_{16}-NBF_{16} = 6.00-6.92 = -.92$
$BF_{15}-NBF_{15} = 8.08-6.00 = 2.08^*$	$BM_{16}-BF_{16} = 7.58-5.75 = 1.83^*$
$BF_{15}-BM_{16} = 8.08-7.58 = .50$	$BM_{16}-NBM_{16} = 7.58-7.83 = -.25$
$BF_{15}-BF_{16} = 8.08-5.75 = 2.33^*$	$BM_{16}-NBF_{16} = 7.58-6.92 = .66$
$BF_{15}-NBM_{16} = 8.08-7.83 = .25$	$BF_{16}-NBM_{16} = 5.75-7.83 = -2.08^*$
$BF_{15}-NBF_{16} = 8.08-6.92 = 1.16$	$BF_{16}-NBF_{16} = 5.75-6.92 = -1.17$
$NBM_{15}-NBF_{15} = 8.25-6.00 = 2.28^*$	$NBM_{16}-NBF_{16} = 7.83-6.92 = .91$

BM_{15} = Black male 15 years or less

BF_{15} = Black female 15 years or less

NBM_{15} = Non-black male 15 years or less

NBF_{15} = Non-black female 15 years or less

Scheffe' critical value = 1.66*Significant at the .05 level

BM_{16} = Black male 16 years or above

BF_{16} = Black female 16 years or above

NBM_{16} = Non-black male 16 years or above

NBF_{16} = Non-black female 16 years or above

Hypothesis three stated that there is no statistically significant difference between pseudoscience component of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

In Table 7, the separate and combined effects of middle school teachers' gender, ethnicity and years of teaching experience on their perceptions with regards to the pseudoscience component of stereotypical beliefs are reported. As shown in this table, there were statistically significant differences found between the perceptions of the two gender groups, A main effect ($F = 17.434$, $df = 1/88$, $P < .001$). In addition, a significant difference was not found between ethnic groups, B main effect ($F = .026$, $df = 1/88$, $P > .05$) and two years of teaching experience groups, C main effect ($F = .003$, $df = 1/88$, $P > .05$).

Additionally, no statistically significant interaction effect was found between ethnicity and years of teaching experience, BxC ($F = .003$, $df = 1/88$, $P > .05$). However, there were significant interactions found between middle school teachers' gender and ethnicity, AxB ($F = 4.943$, $df = 1/88$, $P < .05$), gender and years of teaching experience, AxC ($F = 11.670$, $df = 1/88$, $P < .001$) and gender, ethnicity and years of teaching experience, AxBxC ($F = 4.025$, $df = 1/88$, $P < .05$) concerning their perceptions toward the pseudoscience component of stereotypical beliefs.

Moreover, further data analysis employing the mean results (See Table 8) revealed that male middle school teachers had significantly more favorable perceptions toward the pseudoscience component of stereotypical beliefs than their female peers. Additionally, the Scheffe,' as a multiple comparison test (See Table 9), indicates that black, male, middle school teachers had significantly more favorable perceptions than non-black, female, middle school teachers; And non-black, male, middle school teachers possess more favorable perceptions than both black and non-black middle school teachers regarding the pseudoscience component.

Additionally, the Scheffe' results (See Table 10) revealed that male middle school teachers with 16 years or more of teaching experience had significantly more favorable perceptions than male and female middle school teachers with 15 years or less of teaching experience and female middle school teachers with 16 years or more of teaching experience. Also, male teachers with 15 years or less of teaching experience had significantly more favorable perceptions than females with 16 years or more of experience with regard to the pseudoscience component.

Moreover, the Scheffe' results (See Table 11) reveals that black, male, middle school teachers with 15 years or less of teaching experience had significantly less favorable perceptions than non- black and black middle school teachers with 16 years or more of teaching experience. Also, non-black female middle school teachers with 15 years or less of teaching experience had significantly less favorable perceptions than black, female middle school teachers with 15 years or less and 16 years and more of teaching experience; non-black, male, middle school teachers with 15 years or less and 16 years and more of teaching experience; and black and non- black male middle school teachers with 16 years or more of teaching experience. Finally, black and non-black male middle school teachers with 15 years or less and 16 years or more of teaching experience exhibited more favorable perceptions than non- black female with 16 years or more of teaching with regard to their pseudoscience perception score.

Table 7

Analysis of Variance Summary Table for Gender, Ethnicity, Years of Teaching Experience and the Pseudoscience Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	134.990	7	19.284	5.444	.000***
A (Gender)	61.760	1	61.760	17.434	.000***
B (Ethnicity)	.094	1	.094	.058	.810
C (Years)	.010	1	.010	.003	.957
A X B	17.510	1	17.510	4.943	.029*
A X C	41.344	1	41.344	11.670	.001***
B X C	.010	1	.010	.003	.957
A X B X C	14.260	1	14.260	4.025	.048*
Within Group	311.753	88	3.543		
Total	446.740	95			

*Significant at the .05 level
 ** Significant at the .001 level

Table 8

Mean Results Regarding the Pseudoscience Component by Gender

Main Effect	Mean	Standard Deviation
Gender		
Male	8.75*	2.33
Female	7.14	1.66

*Highest Mean

Table 9

Scheffe' Results Regarding the Pseudoscience Component by Gender and Ethnicity

Black Male Mean One	Black Female Mean Two	Non-Black Male Mean Three	Non-Black Female Mean Four	Observed Mean Differences
8.29	7.54			.75
8.29		9.21		-.092
8.29			6.75	1.54*
	7.54	9.21		-1.67*
		9.21	6.75	2.46*

Scheffe' Critical Value = 1.04 *Significant at the .05 level

Table 10

Scheffe' Results Regarding the Pseudoscience Component by Gender and Years of Teaching Experience

Males 15 yrs or Less Mean One	Males 16 yrs or Above Mean Two	Female 15 yrs or Less Mean Three	Female 16 yrs or Above Mean Four	Observed Mean Differences
8.08	9.42			-1.34
8.08		7.79		.29
8.08			6.50	1.58*
	9.42	7.79		1.63*
	9.42		6.50	2.92*
		7.79	6.50	1.29*

Scheffe' Critical Value = 1.04 *Significant at the .05 level

Table 11

Scheffe' Results Regarding the Three-Way Interaction Between Gender, Ethnicity and Years of Teaching Experience on the Pseudoscience Component

Mean Comparison	Mean Comparison
$BM_{15}-BF_{15} = 7.25-8.58 = -1.33$	$NBM_{15}-BM_{16} = 8.92-9.33 = 0.41$
$BM_{15}-NBM_{15} = 7.25-8.92 = -1.67^*$	$NBM_{15}-BF_{16} = 8.92-6.50 = 2.42^*$
$BM_{15}-NBF_{15} = 7.25-7.00 = .25$	$NBM_{15}-NBM_{16} = 8.92-9.50 = -.58$
$BM_{15}-BM_{16} = 7.25-9.33 = -2.08^*$	$NBM_{15}-NBF_{16} = 8.92-6.50 = 2.42^*$
$BM_{15}-BF_{16} = 7.25 - 6.50 = .75$	$NBF_{15}-BM_{16} = 7.00-9.33 = -2.33^*$
$BM_{15}-NBM_{16} = 7.25-9.33 = 2.25^*$	$NBF_{15}-BF_{16} = 7.00-6.50 = .50$
$BM_{15}-NBF_{16} = 7.25-6.50 = .75$	$NBF_{15}-NBM_{16} = 7.00-9.50 = -2.50^*$
$BF_{15}-NBM_{15} = 8.58-8.92 = -.34$	$BM_{16}-NBF_{16} = 7.00-6.50 = .50$
$BF_{15}-NBF_{15} = 8.58-7.00 = 1.58^*$	$BM_{16}-BF_{16} = 9.33-6.50 = 2.83^*$
$BF_{15}-BM_{16} = 8.58-9.33 = -.75$	$BM_{16}-NBM_{16} = 9.33-9.50 = -.17$
$BF_{15}-BF_{16} = 8.58-6.50 = 2.08^*$	$BM_{16}-NBF_{16} = 9.33-6.50 = 2.83^*$
$BF_{15}-NBM_{16} = 8.58-9.50 = -.92$	$BF_{16}-NBM_{16} = 6.50-9.50 = -3.00^*$
$BF_{15}-NBF_{16} = 8.58-6.50 = 2.08$	$BF_{16}-NBF_{16} = 6.50-6.50 = .00$
$NBM_{15}-NBF_{15} = 8.92-7.00 = 1.92^*$	$NBM_{16}-NBF_{16} = 9.50-6.50 = 3.00^*$

BM_{15} = Black male 15 years or less

BF_{15} = Black female 15 years or less

NBM_{15} = Non-black male 15 years or less

NBF_{15} = Non-black female 15 years or less

Scheffe' critical value = 1.48 *Significant at the .05 level

BM_{16} = Black male 16 years or above

BF_{16} = Black female 16 years or above

NBM_{16} = Non-black male 16 years or above

NBF_{16} = Non-black female 16 years or above

Hypothesis four stated that there is no statistically significant difference between temporal change component of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

Three-Way Analysis of Variance results were computed on the temporal change stereotypical scores of middle school teachers with regard to their gender, ethnicity and years of teaching experience. A significant difference was found between the two gender groups of teachers, A main effect ($F = 20.248, df = 1/88, P < .05$). However, significant differences were not found between two ethnic groups, B main effect ($F = .095, df = 1/88, P > .05$) nor the two years of experience groups, C main effect ($F = .186, df = 1/88, P > .05$) of middle school teachers regarding their temporal change stereotypical scores.

Moreover, middle school teachers' gender and years of experience, $A \times C$ ($F = 4.136, df = 1/88, P < .05$) produced a significant interaction effect on their perceptions toward the temporal change component of stereotypical beliefs. Notwithstanding, significant interaction effects were not found between the teacher's gender and ethnicity, $A \times B$ ($F = 1.098, df = 1/88, P > .05$), ethnicity and years of teaching experience, $B \times C$ ($F = 1.372, df = 1/88, P > .05$), and gender, ethnicity and years of teaching experience, $A \times B \times C$ ($F = .855, df = 1/88, P > .05$), with regard to their temporal change perception scores.

Furthermore, using the mean results (See Table 13), as further data analysis revealed that male middle school teachers had significantly more favorable perception scores regarding the temporal change component of stereotypical beliefs than their female counterparts. Also, the Scheffe' results (See Table 14) indicate that male public school teachers with 16 years or more of teaching experience had significantly more favorable perceptions than female public school teachers with 16 years or more of teaching experience with regard to the temporal change component of stereotypical beliefs. No other mean differences were observed.

Table 12
Analysis of Variance Summary Table for Gender, Ethnicity, Years of Teaching Experience and the Temporal Change Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	76.740	7	10.963	3.999	.001***
A (Gender)	55.510	1	55.510	20.248	.000***
B (Ethnicity)	.260	1	.260	.095	.759
C (Years)	.510	1	.510	.186	.667
A X B	3.010	1	3.010	1.098	.298
A X C	11.344	1	11.344	4.136	.045*
B X C	3.76	1	3.76	1.372	.245
A X B X C	2.344	1	2.344	.855	.358
Within Groups	241.250	88	2.741		
Total	317.990	95			

*Significant at the .05 level

***Significant at the .001 level

Table 13
Mean Results Regarding the Temporal Change Components by Gender

Main Effect	Mean	Standard Deviation
Gender		
Male	9.25*	1.092
Female	7.73	1.38

*Highest Mean

Table 14
Scheffe' Results Regarding the Temporal Change Component By Gender and Years of Teaching Experience

Male 15 yrs or Less Mean One	Male 16 yrs or Above Mean Two	Female 15 yrs or Less Mean Three	Female 16 yrs or Above Mean Four	Observed Mean Difference
8.83	9.67			-.84
8.83		8.00		.83
8.83			7.46	1.37
	9.67	8.00		1.67
	9.67		7.46	2.21*
		8.00	7.46	.54

Scheffe' Critical Value = 2.60 * Significant at the .05 level

Hypothesis five stated that there is no statistically significant difference between educability component of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

Presented in Table 25 were 2x2x2 factorial design results pertaining to the educability stereotypical perception scores of middle school teachers by their gender, ethnicity and years of teaching experience. No statistically significant main effect differences were found between the perception scores of the two gender groups ($F = .275$, $df = 1/88$, $P > .05$), the two ethnic groups ($F = .784$, $df = 1/88$, $P > .05$) and the two years of teaching groups ($F = .348$, $df = 1/88$, $P > .05$) of middle school teachers toward the educability component at the .05 level.

Additionally, the middle school teachers' gender and ethnicity (AxB), gender and years (AxC), ethnicity and years (BxC) and gender, ethnicity and years (AxBxC) did not produce a significant interaction effect on their perceptions toward the educability component of stereotypical beliefs. The F ratios obtained for each interaction were .520, 2.177, .108, and .311, respectively.

Table 15

Analysis of Variance Summary Table for Gender, Ethnicity, Years of Teaching Experience and the Educability Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	175.292	7	25.042	.646	.717
A (Gender)	10.667	1	10.667	.275	.601
B (Ethnicity)	30.375	1	30.375	.784	.378
C (Years)	13.500	1	13.500	.348	.557
A X B	20.167	1	20.167	.520	.473
A X C	84.375	1	84.375	2.177	.144
B X C	4.167	1	4.167	.108	.744
A X B X C	12.042	1	12.042	.311	.579
Within Groups	3410.667	88	38.758		
Total	3585.958	95			

Hypothesis six stated that there is no statistically significant difference between heterodoxy components of middle school teachers' stereotypical beliefs by ethnicity, gender, and years of teaching experience nor the interaction effects of gender, ethnicity and years of experience.

Indicated in Table 16 are the Analysis of Variance results for the gender, ethnicity and years of teaching experience of middle school teachers on their perceptions toward the heterodoxy component of stereotypical beliefs. The differences found in the perceptions of the ethnic groups and years of teaching groups, B ($F = .382$, $df = 1/88$, $P < .05$) and C ($F = 2.301$, $df = 1/88$, $P > .05$) main effects, respectively, are not significant at the .05 level. Nevertheless, the perceptions of the two gender groups, a main effect, are found to be statistically significant ($F = 5.837$, $df = 1/88$, $P < .05$).

Additionally, a statistically significant interaction effect was not found between the perception scores of middle school teachers by gender and ethnicity AxB ($F = .256$, $df = 1/88$, $P < .05$) with respect to the heterodoxy component of stereotypical beliefs. Also, public school teachers, gender and ethnicity, AxC ($F = 1.221$, $df = 1/88$, $P > .05$), ethnicity and years of teaching experience BxC ($F = .186$, $df = 1/88$, $P > .05$) and gender, ethnicity and years of teaching experience, AxBxC ($F = .710$, $df = 1/88$, $P > .05$) did not significantly interact, and thus, did not produce an effect on the perceptions of public school teachers toward the heterodoxy component.

Further data analysis utilizing the mean results (See Table 17) reveals that male middle school teachers exhibited more favorable perceptions toward the heterodoxy component of stereotypical beliefs than female middle school teachers.

Table 16

Analysis of Variance Summary Table for Gender, Ethnicity, Years of Teaching Experience and the Heterodoxy Component of Teachers' Cultural Stereotypical Beliefs

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Between Groups	323.490	7	46.213	1.556	.159
A (Gender)	173.344	1	173.344	5.837	.018*
B (Ethnicity)	11.344	1	11.344	.382	.538
C (Years)	68.344	1	68.344	2.301	.133
A X B	7.594	1	7.594	.256	.614
A X C	36.260	1	36.260	1.221	.272
B X C	5.510	1	5.510	.186	.668
A X B X C	21.094	1	21.094	.710	.402
Within Groups	2613.417	88	29.698		
Total	2936.906	95			

*Significant at the .05 level

Table 17

Mean Results Regarding the Heterodoxy Component by Gender

Main Effect	Mean	Standard Deviation
Gender		
Male	10.375*	1.92
Female	7.69	1.38

*Highest Mean

4. Discussion

A notable finding of this study pertains to the influence of selected demographic factors on certain cultural stereotypical belief components. One demographic factor, in particular, is the significant impact of the variable gender on four of the six perceived components of cultural stereotypical thinking. Gender was found to have a significant impact on the oppression, pseudoscience, temporal changes and heterodoxy components of cultural stereotypical beliefs.

Specifically, male public school teachers were found to have a more favorable perception regarding cultural stereotypical beliefs than their female peers. These findings correspond to those of Kunjufu (2002) and the Department of Education (2009). These researchers found that African-American male students perform better if they are matched with male teachers. An explanation of these findings probably can be explained in a study under the auspices of the Department of Education This study concludes that male teachers are more likely to boost the self-esteem of these students, and are viewed by African-American male students as being fair

Additionally, the ethnicity variable has a significant effect on teachers' cultural stereotypical beliefs, especially, with regard to blaming the victim component. These findings are supported by Delpit (1995), Guy (2000) and Irvine (2003). All of these researchers found that ethnicity had an effect on cultural stereotypical beliefs. A subjective explanation of these findings might be that non-black teachers, because of their socialization process and lack of professional training in diversity, are more prone to accept cultural stereotypical beliefs, especially in terms of the academic behavior of African-American male students in which they comprise a large number of the student clientele in the public school enterprise.

Finally, the variable years of experience independently were found to have no effect on the cultural stereotypical beliefs of public school teachers. However, years of experience in conjunction with other demographic factors such as gender and ethnicity impact the cultural stereotypical beliefs of teachers.

An explanation of the present findings might be irrespective of years of teaching experience, male black and non-black teachers were more equipped socially to deal with diverse populations and environments because the literature revealed that African- American males tend to trust these teachers as being fair.

4.1 Implications

The influence of selected demographic factors such as gender, ethnicity and years of experience on the cultural stereotypical beliefs of teachers suggests that public school administrators should pay close attention to those factors that identify individuals who might have challenges dealing with diversity. The identification process of these teachers will go a long way in enhancing the total educational process for all students regarding background characteristics.

4.2 Recommendations for Further Research

In order to extend the findings of this study, it is recommended that researchers design a study which would measure and compare the perceptions of administrators, parents, students and teachers toward cultural stereotypical beliefs. Also, conduct a study which would utilize a large global population. Such a study if conducted, would provide additional data to explain better the effect of cultural stereotypical beliefs among teachers.

References

- Alvidrez, J., and Weinstein, R., (1999). Early teacher perceptions and later student academic achievement. *Journal of Educational Psychology* 91 (4), 731-736.
- Banks, J.A. (2001). Multicultural education: Its effect on students' ethnic and gender role attitudes. In J.A. Banks & C.A. McGee Banks, *Handbooks of Research on Multicultural Education* (pp. 17-627). San Francisco, C A: Jossey-Bass.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York: The New Press.
- Diamond, J. B. and Randolph, A., J. Spillane. (2004) Teachers expectations and sense of responsibility of student learning: The importance of race class, and organizational habitus. *Anthropology & Education Quarterly* 35 (1), 75-98.
- Farkas, (2003). Racial disparities and discrimination in education. What do we know, how do we know it, and what do we need to know? *Teachers College Record*, 105 (6), 1119-1146
- Figlio, David (2004) Names, expectations and the black and white test score gap
- Ford and Grantham (2003) Providing access for culturally diverse gifted students: From deficit to dynamic thinking. *Theory to Practice*. 42(3), 217-225.
- Gorski, P. (2009). Perceiving the problem of poverty and schooling: Deconstructing the class stereotypes that mis-shape education practice and policy. *Equity, & Excellence in Education*, 45, 2, 302.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Education Research Journal*, 3(6), 465-491.
- Love, A. and Kruger, A. (2005). Teacher's beliefs and student achievement in urban schools serving African American students. *Journal of Educational Research*, 99 (2), 87-98
- Pohan, C.A and Aguilar, T. (2001). Measuring educators' beliefs about diversity in personal and professional contexts. *American Education Research Journal*, 38(1), 159-182
- Steele, C M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52,613-629.
- Valencia, Richard R. (1997). *The evolution of deficit thinking: Educational Thought and Practice*.
- Valencia, Richard R. (2010). *Dismantling contemporary deficit thinking: Educational thought and practice*. Routledge. Retrieved July 13, 2012, from e-book library.
- Villegas and Lucas (2002). Addressing diversity in schools: Culturally response pedagogy. *Teaching Exceptional Children*, 39 (3), 64-68.