Understanding Cultural Competence among Preservice Teachers

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Abstract

The growing disparity between the homogenous teaching force and the diverse student body requires conscious and overt development of cultural competence for preservice teachers. The ongoing conceptual controversy of what constitutes cultural competence and how it can be measured calls for empirical studies on the instrumentation of cultural competence. Using Banks' five-dimensional model of multicultural education (content integration, knowledge construction, prejudice reduction, equity pedagogy, and empowering school and social culture), the purpose of this study was to explore the underlying theoretical structure of cultural competence. Seven hundred and ninety-three (N=793) preservice teachers from two large mid-western universities completed the Multicultural Teaching Scale (MTS). Exploratory factor analysis suggested a two-factor solution of cultural competence: praxis and knowledge. Comparisons of the study results and major theoretical models of cultural competence were discussed, along with the significance of the study and future directions.

Key words: cultural competence, preservice teachers, praxis, knowledge, instrumentation

Understanding Cultural Competence among Preservice Teachers

The growing demographic disparity between students and teachers has brought about a critical need for cultural competence among all teachers (Banks & Banks, 2007; Gay, 1997; Howard, 2006; Zeichner, 1992). To assist preservice teachers with their cultural competence, Banks (1992, 1993a, 1993b, 2004) identified five domains regarding multicultural education upon which preservice teachers need to work including content integration, knowledge construction process, prejudice reduction, equity pedagogy, and empowering school culture and social structure (Banks, 2004). *Content integration* deals with how well preservice teachers use examples, data, and information from a variety of cultures and groups to illustrate the key concepts, principles, generalizations, and theories in their discipline (Banks, 2004). The *knowledge construction process* examines the ways preservice teachers can demonstrate how the implicit cultural assumptions, frames of reference, perspectives, and biases within a discipline influence the construction of knowledge to help their prospective students better understand how knowledge is created and how it is influenced by factors of race, ethnicity, gender, and social class (Banks, 2004). The *prejudice reduction* aspect aims to investigate to what extent preservice teachers can identify the characteristics of children's racial and ethnic attitudes and seek strategies to help them develop more positive attitudes (Banks, 2004). *Equity pedagogy* requires that preservice teachers be capable of using teaching techniques that cater to the learning and cultural styles of diverse groups and social classes, and thus facilitating the academic achievement of students from diverse backgrounds (Banks, 2004). An *empowering school culture and social structure* exists when reservice teachers endeavor to ensure that their prospective students from diverse racial, ethnic and social-class groups experience educational equality and feel empowered (Banks, 2004).

Another theoretical model of cultural competence in teaching derives from diversity standards of the National Council for Accreditation of Teacher Education (NCATE), which require teacher candidates to demonstrate "the knowledge, skills, and professional dispositions to work successfully with children of all races, ethnicities, disabilities/exceptionalities, and socioeconomic groups" (NCATE, 2008, p. 6). Instead of the five dimensions proposed by Banks (2004), the NCATE standards showed a three-dimension model, namely, *knowledge, skills*, and *professional dispositions*.

Sue and his colleagues (Sue, Arredondo, & McDavis, 1992), on the other hand, argued that to achieve cultural competence, counselors need to recognize their personal values and *beliefs* about race and ethnicity, develop *knowledge* about diverse cultural views and experiences, and identify effective *skills* in working with clients from ethnicity groups. Although it was geared more toward counselors rather than preservice teachers, the model was among the earliest and most recognized (Sue, 2001).

Despite the various models developed to explain the concept of cultural competence, few empirical studies were done to explore the underlying structure of cultural competence and compare with the theoretical models. As a means to evaluate the effectiveness of multicultural education and how well preservice teachers are prepared for diversity in education, instrumentation of cultural competence has become a compelling issue.

The Multicultural Teaching Scale (MTS) (Wayson, 1993; Wayson & Moultry, 1988) is a self-report instrument designed to assess preservice teachers' cultural competence. Thabede (1996) conducted a conceptual analysis of the scale which classified the 37 items on MTS into 5 subscales (Table 2) according to Banks' model. A field test of this instrument involving the five subscales reported an overall alpha of .97 and high correlations between all 37 items and the

overall scale score (Gorham, 2001). To explore the measurement properties of MTS using

Banks' five dimensions, Gorham (2001) applied a maximum likelihood factor analysis procedure

with oblique rotation. Rather than support Banks' five-dimension model, Gorham (2001) came

up with five different and highly correlated factors with no internal consistency coefficients

reports. It did not appear as a robust solution because only the first four factors had Eigen values

greater than 1, and there were numerous cross-loadings of the items, with many of the significant

loadings as low as .16. As such, more studies are needed to verify the factor solution of MTS to

understand what composes preservice teachers' cultural competence. Therefore, the primary

purpose of this study was to uncover the underlying structure of cultural competence among

preservice teachers as measured by MTS. In addition, this study endeavored to compare the

empirical factor solution with the extant theoretical models of cultural competence, including

Banks' model (2004), Sue and colleagues' model (1982), and NCATE standards for teacher

candidates (2008).

Method

Participants

Research was conducted at two large midwestern universities: a comprehensive

university located in a rural area and a regional university in a suburb, both of which are

accredited by the National Council of Accreditation for Teacher Education (NCATE). Criterion

sampling was employed in data collection. Qualified participants had to be students already

admitted to teacher education/preparation programs who plan to teach in the near future.

The researcher went to individual classes in teacher education programs across the two

higher institutions and invited about 1000 students for the study. Eight hundred and thirty-three

students volunteered to participate, with a response rate of 83%. As the population of interest

was preservice teachers, the final eligible sample size was 793, barring the 40 participants who were in teacher education programs but had no plan of becoming teachers in the future. The sample was rather homogeneous in terms of gender and ethnicity, which is consistent with what the literature says about the teaching force, i.e., predominantly female and White. In addition, as the participants were mostly undergraduate students in teacher education programs, the majority of them were in their early twenties, with the mode age of 21. On the other hand, the participants were diverse in the sense that they were from two large Midwestern universities with different regional characteristics and covered a wide range of majors from pre-K to secondary to special education. Table 1 lists the detailed demographic information of the sample.

Measure

Multicultural Teaching Scale (MTS) (Wayson, 1993) was a self-report survey used to measure preservice teachers' perceived cultural competence. The scale consists of 37 items along a Likert Scale ranging from 1 (*little competence*) to 6 (*extreme competence*). An exploratory factor analysis was performed to examine the underlying structure of cultural competence. To investigate how the empirical factors capture the original five subscales, follow-up multiple regression analysis was conducted via entering the five theoretical dimensions of cultural competence as measured by MTS (Thabede, 1996) (Table 2) as predictor variables and the new empirical factors as criterion variables.

<center>**Results**</center>

A principal axis factor analysis was performed to determine the number of factors of cultural competence as measured by MTS. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .97, indicating that the data were appropriate for factor analysis (Gorsuch, 1983). Bartlett's test of sphericity led to the rejection of the null hypothesis ($p<.01$)

that the correlation matrix was an identity matrix. A criterion of .40 was adopted as the cutoff

point to identify the items loaded significantly on the factors (Stevens, 2001). A direct oblimin

rotation with delta set at 0 was chosen because we expected correlated factors (Gorsuch, 1983).

Two-factor Model of Cultural Competence

The three primary criteria used to determine the number of factors to extract were

eigenvalues, scree plot, and a parallel analysis (Horn, 1965). Before the oblimin rotation, five

eigenvalues were found to be greater than 1.00, which were 15.87, 1.87, 1.43, 1.19, and 1.07.

According to Costello and Osbourn (2005), retaining factors with engenvalues over 1.00 is the

default in most statistical software packages including SPSS, yet it is among the least accurate

methods for determining the number of factors to retain and usually produces too many factors.

Following the oblimin rotation, the scree test suggested five factors which respectively

accounted for 42.88%, 5.04%, 3.88%, 3.23% and 2.90% (prerotation) for a total of 57.93% of the

variance. Using the procedures of parallel analysis recommended by O'Connor (2000), mean

eigenvalues were computed from a factor analysis of 100 random data sets generated from the

same rank as the original data. Only three eigenvalues for the original data for a specific factor

were bigger than the eigenvalues for the related factor computed from the random data sets.

Therefore, parallel analysis only suggested three factors instead of five should be retained

(Thompson, 2004). Using a criterion of .40 as a cutoff point (Stevens, 2001), only one item had a

structure coefficient of .45 on the third factor. However, this item also loaded significantly on the

first factor, with even a higher structure coefficient of .50. As a result, a two-factor solution was

deemed more appropriate and parsimonious.

Both structure and pattern coefficients were considered in defining the two factors. An

examination of the factor loadings in the two-factor solution showed 23 items on the first factor

and 11 items on the second factor had both structure and pattern coefficients of over .40.

Because of the large correlation between the two factors ($r = .69$), the pattern coefficients and

structure coefficients are quite different in size. Therefore, both sets of coefficients were

considered in interpreting the factors and factor scores were used in subsequent analyses.

A careful examination of all the items loaded significantly on Factor 1 showed that a

main theme among all these items is the application and activation of multicultural knowledge.

These items are all about practical instructional ideas and strategies that demonstrate cultural

competence, what a preservice teacher can do in practice, and how a preservice teacher can bring

students from all cultures to work and play together, which is typically viewed as praxis in

multicultural education (Nieto, 1996). Therefore, Factor 1 was labeled as "Praxis".

Regarding the items with significant loadings on Factor 2, all of them highlighted what

and how much a preservice teacher knows about other cultures and if they are well aware of

cultural biases and stereotypes. As a result of the highlight of a knowledge base necessary for the

embodiment of cultural competence, Factor 2 was termed as "Knowledge".

Table 3 shows both the pattern and structure coefficients of the items on the two factors,

final communality estimates for each item, initial eigenvalues of the two factors, percentage of

variance each factor accounts for after extraction, sums of squared loadings after rotation, and

reliability coefficients of the two subscales. As can be seen from Table 3, the sums of squared

loadings after rotation were 13.93 for Factor 1 and 12.30 for Factor 2. The internal consistency

coefficients and 95% confidence intervals for the two factors were : Praxis (a=.95) [.942, .953],

and Knowledge (a=.89) [.883, .904], indicating high reliability of the two factors. The

Cronbach's alpha for scores on the entire scale was .96.

Relating Factors to the Original Subscales

Multiple regression analysis was used to investigate how the two empirical factors are related to the original five theoretical subscales. The sum of scores on the subscales within Banks' model (i.e., content integration, knowledge construction, prejudice reduction, equity pedagogy, and empowering school culture) (Thabede, 1996) were entered simultaneously as the predictor variables, and the criterion variables were the factor scores of the praxis and knowledge subscales produced in the exploratory factor analysis. Overall, 98% of the variance of praxis was explained by the model entered ($R^2 =.98$), $F (5, 724) = 6127.10$, $p<.01$, and 94% of the variance of knowledge factor ($R^2 =.94$), $F (5, 724) = 2318.64$, $p<.01$.

Zero-order and semi-partial correlations between the two factors and the five original subscales were examined and presented in Table 4 due to unstable beta weights from multicollinearity (Stevens, 2001). Table 4 results show that all of the previously mentioned subscales have moderate to high zero-order correlations with both praxis and knowledge factor. Whereas the semi-partial correlations are shown to be similar to the zero-order correlations, big changes in the magnitude of the correlation in general were found and in one case, it changed the correlation between empowering school culture subscale and knowledge factor from significant to non-significant. However, the semi-partial correlation between the five subscale scores and the two factor scores mostly remained significant in a positive direction with one exception. The relationship between knowledge construction subscale and praxis factor, positive as a zero-order correlation ($r =.66$, $p<.01$), was negative as a semi-partial correlation ($r =-.06$, $p<.01$). It is important to note that the changes in the magnitudes of the correlation coefficients resulted from partialing out the effects of the relationship among the five predictor variables.

From the high zero-order correlations of prejudice reduction ($r = .95$) and empowering school culture ($r = .91$) with praxis, it can be seen that these two dimensions within Banks'

model mainly defined the praxis factor. It's plausible that to reduce the prejudices of students and parents, and help empower the school culture necessitates a lot of action. Therefore, it appears that praxis was a good reproduction of the original subscales.

The high zero-order correlations of knowledge construction ($r = .92$) and content integration ($r = .91$) with knowledge factor confirmed the appropriateness of naming the second factor as knowledge, because being aware of the cultural assumptions and biases and reflecting them in the content area for preservice teachers require a big knowledge base in multicultural issues.

On the whole, results from the exploratory factor analyses suggested that praxis and knowledge are two aspects of cultural competence and disclosed the interconnectedness of these two aspects. The multiple regression analyses with the five initial subscales to predict praxis and knowledge showed a good recapitulation of the original five subscales, yet with a more parsimonious solution.

Discussion

The findings of the current study shed light on alternative ways of approaching and understanding cultural competence. Although Thabede (1996) successfully came up with Banks' five-dimension theoretical model of multicultural education (Banks, 2004) to operationalize cultural competence with high inter-rater reliability among a panel of experts, this model failed in the current study as well as in another empirical study exploring the underlying structure of cultural competence (Gorham, 2001). The discrepancy between Banks' model (2004) and the two-factor solution in the current study, together with the high correlation between praxis and knowledge posed an intriguing question: is there an over-definition of multicultural education or

are the items on the MTS not representative enough? What are the core components of cultural

competence?

The two factor structure of cultural competence among preservice teachers as measured

by MTS is similar, but not identical to Sue and his colleagues' model (Sue, 1982; Sue,

Arredondo, & McDavis, 1992) composed of three dimensions: beliefs, knowledge, and skills.

Out of the three dimensions, knowledge and skills were discovered in the factor structure of

MTS for the current study. Looking back at the items that defined the two factors, there is a

similarity between the knowledge and skills dimensions in Sue's model (1982) and the

knowledge and praxis dimensions in the present study. According to Sue and his colleagues,

cultural competence necessitates the mastery of many types of knowledge on diversity issues,

including a good understanding of the treatment of minority groups in the sociopolitical system,

both general and specific knowledge and information about diversity issues, and institutional

barriers that hinder equity across diverse groups. The items that loaded significantly on the

knowledge factor of MTS reflected a good recognition of cultural differences and similarities

among various groups, social forces that influence the opportunity for minority groups, and

generic and specific instructions that meet the needs of diverse learners (Table 3). Meanwhile,

Sue and his colleagues argue that to demonstrate the cultural competence in skills dimension,

one needs the ability to generate and properly respond to a wide variety of verbal and nonverbal

responses as well as practice institutional intervention skills when appropriate. This is consistent

with the praxis factor on MTS, in that most of the items loaded on this factor are focused on how

preservice teachers are expected to integrate equity pedagogy, help with prejudice reduction

among their students, and contribute to empower school and social structure to help improve

education equity and equality. Nonetheless, the belief dimension was missing in the findings of the present study.

The two factor solution was comparable to the NCATE diversity standards (2008) to some extent, in that the NCATE standards stipulate that preservice teachers need to demonstrate "the knowledge, skills, and professional dispositions to work successfully with children of all races, ethnicities, disabilities/exceptionalities, and socioeconomic groups" (NCATE, 2008, p.6). Knowledge and praxis were present in the study, which are fairly close to knowledge and skills as stated in the NCATE diversity standards (2008). The major difference between the two-factor solution in the present study and NCATE standards is the absence of professional disposition dimension.

The discrepancy between the factor solution in the study and Banks' five-dimension model (2004), Sue et al.'s model of multicultural counseling competence (1982), and NCATE diversity standards (2008) may be a result of several factors. First, the items on MTS may have missed the disposition dimension. It can be seen that most of the items on MTS are on knowledge and praxis dimensions (Table 3). Nothing but one item, i.e., feeling that every student can learn, is found to be measuring preservice teachers' beliefs or professional dispositions. Second, Banks' five-dimension model may have been featured with over-definition, as evidenced by both the high correlations among the five original subscales in Bank's model disclosed in the correlation analysis and the high correlations of the two factors in the study. The five aspects of multicultural education make great sense in how to prepare teachers for an increasingly diverse society, but they may all share common issues to work on to achieve cultural competence.

Regardless, the present study seemed to be suggesting that knowledge and praxis are two aspects of cultural competence among preservice teachers, which are well supported by the literature on multicultural education. Sinagatullin (2003) proposed that to meet the challenges of increasing diversity, it is vital that multicultural teachers gain, possess, and maintain specific pedagogical skills and a big knowledge base. Similarly, Diller (2007) listed several major steps toward cultural competence, with the first step being the awareness and acceptance of differences, followed by knowledge of other cultures, and concluded by the ability to adapt and adjust generic practices to accommodate cultural differences.

Future Directions

The failure of MTS to support Banks' model (2004) and other relevant models of cultural competence raised serious concerns of understanding and operationalizing cultural competence. Despite the two components of praxis and knowledge in cultural competence among preservice teachers revealed in the study, their high correlation as well as the high correlation of the five dimensions in Banks' model suggests teacher educators may want to stress the importance of acquiring multicultural knowledge and encourage preservice teachers to practice what they know about diversity issues in education. Given this finding, we might want to ask: what is more important in multicultural teacher education and what are the core components of cultural competence? Are knowledge and praxis enough to demonstrate cultural competence?

The discrepancy between the factor solution of cultural competence as measured by MTS and theoretical dimensions of cultural competence in Banks' model (2004), Sue's model (1982), and NCATE diversity standards (2008) appeals for future research efforts to develop a more robust and representative instrument to capture the essence of cultural competence for preservice teachers. More psychometric studies are needed to test the underlying structure of cultural

competence for preservice teachers. In particular, perhaps more items specifically on *disposition*

or *belief* dimensions could be added to the extant MTS item pool to test whether they are other

important components of cultural competence.

Future research should test a hierarchical model with a different sample to test the

psychometric property of MTS. We need more studies to determine whether Banks' five-

dimension model is problematic with over-definition or the MTS instrument is not representative

enough to capture his five components of multicultural education. Not only is research on

instrumentation of preservice teachers' cultural competence warranted, but evaluation endeavors

on Banks' model (2004) should be made.

It is promising to broaden the horizon of cultural competence by relating it to other

important developmental aspects of preservice teachers such as moral development, identity

development, empathy and sense of social justice, etc as supported by the literature (e.g., Boero,

2002; Daniels, et al, 2002; Wang, Davidson, Yakushko, Savoy, Tan, & Bleier, 2003). Future

studies might focus on these other aspects in developing a more inclusive instrument to measure

the core foundations of cultural competence. Aside from knowledge and praxis, perhaps the

philosophical implications of cultural competence can help us better understand this concept,

hence operationalize it and measure it more effectively.

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Table 1

Demographic Characteristics of Participants

Characteristics	Number of Participants	Total Percent
Ethnicity		
Asian American	7	0.9%
Black, non-Hispanic	21	2.7%
Hispanic	16	2.1%
Native American	52	6.7%
Caucasian	645	83.4%
Biracial/Multiracial	27	3.5%
International	5	0.6%
Gender		
Male	150	19.1%
Female	635	80.8%
Age		
19	47	6.0%
20	168	21.4%
21	222	28.3%
22	122	15.6%
23	57	7.3%
24	42	5.4%
25	25	3.2%
26-35	54	6.7%
36-60	47	6.1%
Major		
Early Childhood Education	219	27.7%
Elementary Education	249	31.5%
Secondary Education	213	26.9%
Art/Music/French/Spanish/Physical Education (P-12)	47	5.9%
Special Education	49	6.2%
Other	14	1.8%
Program Status		
Junior First Semester	304	38.5%
Junior Second Semester	71	9.0%
Senior First Semester	261	33.0%
Senior Second Semester	49	6.2%
Other	105	13.3%
Hours of Instruction on Multicultural Issues		
0 hours	64	8.2%

1-2 hours	115	14.7%
3-4 hours	189	24.2%
5-6 hours	165	21.2%
7-8 hours	82	10.5%
9-10 hours	55	7.1%
11-12 hours	28	3.6%
13+ hours	82	10.5%

Table 2

Classification of Multicultural Teaching Scale into Dimensions Typology of Multicultural Education (Thabede, 1996)

Item No.	Statement

Dimension I: Content Integration

1	Demonstrate a basic knowledge of the contributions made by minority groups in our society
3	Develop materials appropriate for the multicultural classroom.
5	Help students see cultural groups as real people.
6	Show how mainstream Americans have adopted food, clothing, language, etc. from other cultures.
7	Present cultural groups in our society in a manner that will build mutual respect.
9	Present diversity of cultures as a strong positive feature of American heritage.
11	Identify the similarities between Anglo-American and other cultures.
16	Know the history of minority groups in the United States.

Dimension II: Knowledge Construction Process

2	Identify cultural biases in commercial materials used in instruction
4	Identify the social forces which influence opportunities for minority group members.
8	Identify how language affects performance on certain test items
12	Know different patterns of child rearing practices among cultures.
14	Analyze instructional materials for potential stereotypical attitudes.
15	Know ways in which various cultures contribute to our pluralistic society.

Dimension III: Prejudice Reduction

17	Provide instruction showing how prejudice affects individuals.
18	Plan instructional activities that reduce prejudice toward other cultural groups.
20	Provide instructional activities that help students develop strategies for dealing with racial confrontations.
21	Help students examine their prejudices.
24	Deal with prejudice shown by students' parents.
25	Assist all students to understand the feelings of people from other ethnic groups.
26	Help students work through problem situations caused by stereotypical attitudes.
27	Be direct in expressing feelings to someone from another culture.
29	Identify student behaviors that are indicative of negative racial attitudes.
31	Develop instructional methods that dispel myths about ethnic groups.
37	Deal with prejudice shown by my own parents.

Dimension IV: Equity Pedagogy

13	Adapt instructional methods to meet the needs of learners from diverse cultures.
19	Create a learning environment that allows for alternative styles of learning.
22	Help students recognize that competence is more important than ethnic background.
23	Develop activities that increase self-confidence of minority students.
35	Feeling that every student can learn.

Dimension V: Empowering School Culture

10	Effectively utilize ethnic resources in the community.
28	Identify solutions to problems that may arise as the result of cultural diversity.
30	Develop instructional methods that promote intercultural cohesiveness.

32	Visit students' homes in the poor part of town.
33	Get students from differing cultures to work together.
34	Get students from differing cultures to play together.
36	Deal with prejudice shown by my own parents.

Table 3

Factor Structure of the Multicultural Teaching Scale (N=730)

Item No.	Statements	I		II		h^2
		P	S	P	S	
34	Get students from differing cultures to play together.	**.77**	**.72**	-.07	.46	.52
33	Get students from differing cultures to work together.	**.76**	**.73**	-.06	.47	.53
26	Help students work through problem situations caused by stereotypical attitudes.	**.71**	**.78**	.11	.61	.63
35	Feeling that every student can learn.	**.68**	**.54**	-.20	.27	.31
36	Identify school practices that harm minority students.	**.65**	**.68**	.05	.50	.47
23	Develop activities that increase self-confidence of minority students.	**.64**	**.75**	.17	.61	.58

27	Be direct in expressing feelings to someone from another culture.	**.62**	**.63**	.00	.44	.39
29	Identify student behaviors that are indicative of negative racial attitudes.	**.60**	**.71**	.16	.57	.51
22	Help students recognize that competence is more important than ethnic background.	**.59**	**.64**	.08	.48	.41
18	Plan instructional activities that reduce prejudice toward other cultural groups.	**.58**	**.73**	.22	.62	0.56
25	Assist all students to understand the feelings of people from other ethnic groups.	**.58**	**.72**	.21	.61	.55
37	Deal with prejudice shown by my own parents.	**.58**	**.49**	-.12	.28	.25
21	Help students examine their prejudices.	**.57**	**.66**	.13	.53	.45
19	Create a learning environment that allows for alternative styles of learning.	**.55**	**.65**	.15	.53	.43
20	Provide instructional activities that help	**.54**	**.72**	.27	.64	.56

	students develop strategies for dealing with racial confrontations.					
28	Identify solutions to problems that may arise as the result of cultural diversity.	**.54**	**.73**	.27	.64	.57
30	Develop instructional methods that promote intercultural cohesiveness.	**.54**	**.74**	.29	.66	.59
31	Develop instructional methods that dispel myths about ethnic groups.	**.53**	**.70**	.24	.61	.52
32	Visit students' homes in the poor part of town.	**.46**	**.44**	-.03	.29	.20
5	Help students see cultural groups as real people.	**.45**	**.63**	.26	.57	.43
7	Present cultural groups in our society in a manner that will build mutual respect.	**.44**	**.66**	.32	.63	.49
24	Deal with prejudice shown by students' parents.	**.44**	**.59**	.22	.52	.37
17	Provide instruction showing how prejudice	**.42**	**.62**	.29	.59	.44

affects individuals.

15	Know ways in which various cultures contribute to our pluralistic society.	.00	.51	**.74**	**.74**	.55
1	Demonstrate a basic knowledge of the contributions made by minority groups in our society.	-.09	.39	**.70**	**.64**	.41
12	Know different patterns of child rearing practices among cultures.	-.02	.45	**.68**	**.67**	.45
4	Identify the social forces which influence opportunities for minority group members.	.05	.50	**.65**	**.68**	.47
16	Know the history of minority groups in the United States.	.02	.45	**.63**	**.64**	.41
13	Adapt instructional methods to meet the needs of learners from diverse cultures.	.21	.62	**.59**	**.73**	.56
3	Develop materials appropriate for the multicultural classroom.	.10	.50	**.58**	**.65**	.43

10	Effectively utilize ethnic resources in the community.	.19	.59	**.57**	**.70**	.51
11	Identify the similarities between Anglo-American and other cultures.	.15	.51	**.53**	**.63**	.41
14	Analyze instructional materials for potential stereotypical attitudes.	.30	.62	**.46**	**.66**	.49
2	Identify cultural biases in commercial materials used in instruction.	.02	.33	**.45**	**.47**	.22
9	Present diversity of cultures as a strong positive feature of American heritage.	.37	.61	.35	.60	.44
8	Identify how language affects performance on certain test items.	.24	.47	.33	.50	.28
6	Show how mainstream Americans have adopted food, clothing, language, etc. from other cultures.	.29	.48	.27	.47	.26
	Eigenvalue	15.87		1.87		

Percentage of Variance	41.47	3.51
Sum of Squared Loading	13.93	12.29
Reliability (Cronbach's Alpha)	.95	.89

Note. P=pattern coefficients; S=structure coefficients; I=Praxis; II=Knowledge

Table 4

Correlations of Variables and Factors

Variable	Factor I: Praxis		Factor II: Knowledge	
	Zero-order	Semi-partial	Zero-order	Semi-partial
Content Integration	.78**	.03**	.91**	.21**
Knowledge Construction	.66**	-.06**	.92**	.28**
Prejudice Reduction	.95**	.24**	.79**	.04**
Equity Pedagogy	.88**	.14**	.75**	.03**
Empowering School Culture	.91**	.17**	.75**	.01

Note. ** $p < .01$ (2-tailed).