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TEACHER EFFICACY SCALE FOR CLASSROOM DIVERSITY (TESCD): A VALIDATION STUDY

Escala de eficacia del Profesorado de la diversidad en el aula (TESCD): Un estudio de validación.



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Abstract:

The purpose of the present study was to validate the Teacher Efficacy Scale for Classroom Diversity (TESCD). This scale was developed to measure preservice teachers' self-efficacy beliefs in their capability to teach students from diverse backgrounds. Four hundred and seventeen (N=417) preservice teachers participated in the study. Data analyses revealed that overall the TESCD has a good construct and concurrent validity and reliability. Recommendations are made for using this scale to examine preservice teachers' efficacy beliefs in teaching diverse student populations.

Key words: *Self-efficacy, Teacher efficacy Scale, Diverse student populations.*

Resumen:

El propósito del presente estudio fue validar la escala de la eficacia del profesor de la Diversidad en el aula. Esta escala fue desarrollada para medir futuros docentes sus creencias de autoeficacia para enseñar a estudiantes de diversas procedencias. Cuatrocientos diecisiete (N = 417) futuros docentes participaron en el estudio. El análisis de datos reveló que, en general, la TESCD tiene una buena validez de constructo y concurrente y fiabilidad. Se hacen recomendaciones para el uso de esta escala para examinar en futuros docentes sus creencias de eficacia respecto a la enseñanza de distintas poblaciones estudiantiles.

Palabras clave: *Creencias de autoeficacia, Escala de eficacia docente, diversidad de poblaciones estudiantiles.*

1. Introduction

The number of immigrant children enrolled in schools has increased around the world (Arzubiaga, Nogueron, & Sullivan, 2009). For example, in the United States, according to the U.S. Census Bureau, the population of the country is undergoing significant demographic changes. Specifically, data from the 2005-2009 America Community survey show that approximately 12% of the population in the United States are foreign born, which is a 24% growth between 2000 and 2009 (Grieco & Trevelyan, 2010). Markedly, in 2003, 18.4% of the United States population spoke a language other than English in the home compared to 13.8% in 1990 (U.S. Bureau of the Census, 1990; 2003).

As a result of these demographic changes, there is little debate in the field of education in regards to the need to train preservice teachers to become multiculturally competent teachers (Bennett, 2001; Gay, 2002; Larkin, 1995). Multicultural competence is defined as a teacher's ability to be aware of his or her own cultural identity and biases, to gain a worldview which encompasses learning about worldviews of groups who are culturally different, and to develop culturally responsive teaching strategies to work with diverse student groups (Gay, 2002). Culturally responsive teaching practices include taking into consideration the students' experiences, cultural characteristics, and perspectives as a medium for providing effective teaching. Teacher preparation programs that advocate for the inclusion of multicultural education curricula have used teaching strategies such as autobiographies, multicultural coursework, cultural therapy, collages, debates, and field experiences to effectively prepare their preservice teachers (Sleeter, 2001). The question then is do preservice teachers believe that they are capable in teaching diverse students following completion of such teacher preparation programs? To measure whether these teaching strategies are effective, researchers have used primarily attitudinal surveys (Rios, McDaniel & Stowell, 1998; Sleeter, 2001). The purpose of this study was to validate a newly developed efficacy scale to measure preservice teacher's beliefs in their capability to teach diverse students.

Self-efficacy refers to beliefs about one's capability to learn or perform effectively. These beliefs predict the degree to which people will make an effort to achieve desired outcomes and persist despite difficulties (Bandura, 1977; 1997). Numerous teacher efficacy scales exist in the literature including scales of general and personal teacher efficacy (Ashton, Buhr & Crocker, 1984; Gibson & Dembo 1984; Bandura, 1998; Tschannen-Moran & Hoy, 2001), and scales that address different subject and curriculum teacher specific efficacy (e.g., Enoch & Riggs, 1990).

To capture teacher efficacy researchers have used a variety of formats. For example, Ashton, Buhr, and Crocker (1894) created a teacher efficacy scale that used vignettes to illustrate situations that teachers might experience and asked them to indicate how successful they would be in handling the episode. Gibson and Dembo (1984) also developed a teacher efficacy scale assessing teacher's personal teaching efficacy and teachers' beliefs in their ability to affect change using a Likert format. Similarly, later Bandura (1998), created a 30-item instrument which consists of seven subscales, such as efficacy to influence decision making and efficacy to create a positive school climate whereas Tschannen-Moran and Hoy (2001), developed a scale which includes items among others on creativity in teaching, and flexible application of alternative assessment and teaching strategies. Finally, Siwatu (2007) developed a Likert type scale assessing teacher's efficacy to engage in culturally responsive teaching.

Research studies on teacher efficacy show that behavioral functioning is determined by beliefs of efficacy in coping with specific situations and that competent teachers generally have a strong sense of teacher efficacy (Schunk, Pintrich, & Meece, 2008). Specifically, the more efficacious teachers are in successfully instructing their students, the more effort they will put into teaching, persistence to help struggling students, and the types of activities they engage their students in (Schunk et al., 2008). Additionally, competent teachers tend to be more positive about their teaching and appear to be receptive to new instructional practices (Friedman & Kass, 2002; Guskey, 1988). In fact, the concept of teacher efficacy is highly related to the concept of student self-efficacy (Bandura, 1997), where the same sources of self-efficacy in students apply to the sources of efficacy in teachers. Specifically, teacher efficacy is also influenced by actual teaching outcomes (as measured by the students' achievement levels) vicarious experiences, verbal persuasion, and physiology indices (Bandura, 1997). Therefore, the sources of teacher efficacy and their actual teaching efficacy largely depend on the context that they are teaching in.

Researchers have examined how student characteristics and contextual characteristics also impact the level of efficacy that teacher's exhibit (Knoblauch & Woolfolk-Hoy, 2008; Siwatu, 2007; 2011). For example, Knoblauch and Woolfolk-Hoy (2008) examined how preservice teacher efficacy beliefs, collective efficacy beliefs (defined as the confidence one has in his/her own group to succeed on a given task), and perceived cooperating/mentor teachers' efficacy beliefs were differentially impacted by the contextual setting of the school (rural, suburban, and urban). A total of 196 preservice teachers participated in the study and their sense of teaching self-efficacy were measured with several instruments.

The results showed that all preservice teachers, regardless of the context, had significantly increased levels of teaching self-efficacy from prior to beginning the field experience to after completion. In addition, homeroom inservice teacher's efficacy significantly predicted the preservice teachers' efficacy regardless of school context. In terms of collective self-efficacy, preservice teachers who worked at an urban school reported lower levels of perceived collective efficacy than teachers in suburban or rural school settings. In fact, preservice teachers who completed their fieldwork in suburban school settings reported the highest perceived collective efficacy followed by rural school settings with urban school settings reporting the lowest collective efficacy perceptions. Other studies also report similar findings (Siwatu, 2007; 2011) showing that preservice teachers believe that they are more prepared and efficacious to teach in suburban schools than in urban schools and that regardless of the school context, all teachers reported low levels of efficacy to teach English as a second language students.

Given the above research findings, teacher efficacy could be an important predictor of teacher performance. Therefore, the scope of this paper is to contribute to the research of teacher efficacy and/in multicultural educational training by validating the Teacher Self Efficacy Scale for Classroom Diversity (TESCD). Although, attitudinal surveys toward cultural diversity among preservice educators may provide some information regarding their preparedness to teach diverse students, very few teacher efficacy measures exist in the literature. One of these scales the Culturally Responsive Teaching Self-Efficacy (CRTSE) designed to measure teacher perceptions about their ability to effectively use culturally responsive teaching strategies (Siwatu, 2007) has attempted to measure teacher efficacy in teaching diverse student populations. However, this scale focuses more on general culturally relevant teaching strategies whereas the TESCD attempts to place teachers into specific situations/scenarios that require them to reflect on their responses. For example, one of the questions on the Siwatu (2007) culturally responsive self-efficacy scale is: "Obtain

information about my students' academic strengths?" where teachers indicate the degree of confidence to engage in that specific teaching task. The TESCD however, places the teachers into actual scenarios/problems that are common in highly diverse classrooms and questions their confidence in their ability to address the problem. Further, the sample used to validate the scale was largely homogenous, consisting of mainly Caucasian teachers (93%), whereas the sample used to validate the survey in this study was more diverse.

Diversity influences how students learn, thus, making it necessary for the teacher to create a culture fair/enhanced classroom climate. Using teacher efficacy as a way to determine whether the teacher believes that he or she is capable in eliminating cultural differences in the classroom has received little attention in the literature, thus the development and the validation of a teacher efficacy scale for classroom diversity is crucial for attending to the challenge that multiculturalism has placed on the educational system. It is expected that the TESCD would be a useful scale in assisting program evaluators to determine whether teacher preparation programs prepare preservice teachers adequately to teach effectively diverse students.

2. Method

The first goal of the present study was to develop the items for the TESCD scale and then evaluate its psychometric properties. Below, a description of the item development process is presented following with evidence of the construct validity, the concurrent validity, and the internal consistency of the TESCD scale.

3. Instrument Development

A review of the literature on cultural diversity revealed a number of sources of student diversity, such as: racial and ethnic identity, gender, language and culture, and socioeconomic status. Based on these sources of diversity and the Bandura (2001) guidelines for developing efficacy scales, a research team consisting of in service teachers, preservice teachers and students initially developed 14 scenario items addressing different situations that a teacher may have encountered in the classroom (e.g., language differences, ethnic distinctions, etc.). For these scenarios, a Likert response format was adopted based on Bandura's teacher efficacy scale. Then, the items were pilot-tested with 7 pre-service teachers representing the major racial and ethnic groups (including Caucasian, African\American, Hispanic, and Asian), to obtain their feedback regarding clarity, understanding, readability, and scoring. Based on this field test, 4 scenario items were dropped because the teachers felt that they were redundant. The remaining 10 items were expected to yield one factor and measure the following sources of diversity: race and ethnicity, gender, language and culture, and social class, see Table 1 for a complete list of all the items.

4. Validation Procedures

4.1. Participants

In an effort to examine the construct and concurrent validity and internal consistency of the TESCD, 454 undergraduate preservice college students enrolled in 11 sections of educational psychology were asked to participate in the study. Of the 454 students, 417 agreed to participate or completed the surveys. These students were selected because they had taken a multicultural course as part of the teacher licensure requirement. The sample consisted of 122 males and 295 females. Their ethnicity was reported as 121 Caucasian, 85 African-American, 97 Hispanic, 73 Asian, and 41 "other". The mean age of the participants was 22 (SD = 4.5) (ranging from 19-32). Of those reporting their GPA, the mean was 3.2.

4.2. Measures

Teacher Efficacy Scale for Classroom Diversity (TESCD). The TESCD was developed to assess the student teachers' perceived capability to teach diverse populations. Using scenario items that described a diversity situation in a classroom setting, participants were asked to indicate how certain they were that they could deal effectively with each situation on a scale ranging from 0(Cannot do at all) to 100(Highly certain can do) situations were presented to each student teacher participant. Each situation included a source of diversity item in the classroom. An example of a diverse situation is as follows: "You are teaching a class with students from various ethnic backgrounds with different traditions, customs, conventions, values, and religious beliefs. You notice that some of your students have trouble tolerating one another's differences. How certain are you that you can provide your students with opportunities that foster awareness and appreciation of cultural differences?" Teachers' responses to these situations were measured on Likert scale ranging from (0- Cannot do at all, 100-Highly certain can do).

Teacher Efficacy Scale- (Bandura, 1998). This scale measured the degree to which teachers believe they can effectively teach, as well as influence the school, parents, and students. Responses were measured on a 9-point Likert scale (1-Nothing, 9- A Great Deal). In addition, there were eight subscales which were: efficacy to influence decision making; efficacy to influence school resources; instructional self-efficacy; disciplinary self-efficacy; efficacy to enlist parental involvement; efficacy to enlist community involvement; efficacy to create a positive school climate; and project-specific questions. Examples of the thirty items include: "How much can you do to get through to the most difficult students?"; "How much can you do to get parents to become involved in school activities?"; and "How much can you do to enhance the collaboration between teachers and the administration to make the school run effectively?"

Preparedness Survey (Ambrosio, 2001). This survey was adapted to assess the degree to which the student teachers feel that their institution has prepared them to work with various diverse populations. Responses were measured on a 4-point Likert scale(1-Not Prepared, 4-Well Prepared). Teachers were asked to respond to 13 items phrased as "Considering all my course work to this point, I feel ____ prepared to deal with..." Several of the situations included: "Students with mental challenges," "Students with same-gender parents," and "Students who are gifted and talented."

Multicultural Questionnaire-Revised (MCR) (Ambrosio, 2001). This 30-item questionnaire measures a preservice student teachers' overall attitude toward issues related to diversity. Responses were measured on a 5-point rating (1- Strongly Agree to 5- Strongly Disagree). Examples of the items include: "I almost always try to understand customs of different cultures"; and "I see nothing wrong with a person wishing to live in a neighborhood composed of only one ethnic group".

The Cross-Intercultural Adaptability Inventory (CCAI) (Kelley & Meyers, 1995) was administered to the participants to assess their cross-intercultural effectiveness and self-awareness. Kelley and Meyers (1995) developed the CCAI in order to quantify the dimensions known to be associated with cross-intercultural effectiveness. This inventory consists of 50 items/questions that comprise 4 subscales: Emotional Resilience; Flexibility/Openness; Perceptual Acuity; and Personal Autonomy.

Emotional Resilience measures the degree to which one can bounce back from negative emotions and maintain a positive attitude toward new experiences. It is the largest of the four CCAI scales, consisting of 18 items. It measures coping with stress and ambiguity, rebounding from imperfections and mistakes, trying new experiences, and interacting with people in new or unfamiliar situations. A sample item designed to measure this construct is: "I have ways to deal with the stresses of new situations".

Flexibility/Openness consists of 15 items and assesses an individuals'/ones' willingness to be receptive and enjoy different ways of thinking and behaving in a new environment. It measures interest in unfamiliar people and ideas, tolerance toward others, and flexibility with regard to new experiences. A sample Flexibility/Openness subscale item/question is: "I can enjoy relating to all kinds of people".

Perceptual Acuity measures ones' interpersonal sensitivity and the ability to perceive accurately cues across cultures. The 10 items of this subscale focus on communication skills, cross-cultural empathy and the accurate interpretation of nonverbal and social cues. A sample question/item is: "I try to understand peoples' thoughts and feelings when I talk to them."

Finally, the smallest, but most complex scale, Personal Autonomy, deals with personal identity and adherence to a strong set of cross-cultural values as well as respecting the values and traditions of the another culture. An example of an item from this subscale is: "I feel free to maintain my personal values, even among those who do not share them."

For all four subscales, participants were asked to answer the questions using the following rating scale: 1 (Definitely not true), 2 (Not true), 3 (Somewhat True), 4 (Tends to be true), and 5 (Definitely true). The CCAI has been widely used and has shown to be a valid and reliable instrument (Kelley & Meyers, 1995).

4.3. Procedure

Upon receiving permission from each of the instructors, the researcher administered the diversity scenario item surveys to the preservice student teachers around the second week of class. All participants signed an informed consent form and then completed the packet of surveys.

4. Results

Descriptive statistics, including means and standard deviations are depicted in Table 1, for all variables. The factorial structure of the newly developed TESCD scale was analyzed using an exploratory principal component analysis, which yielded one factor that accounted for 61.26% of the variance (eigenvalue = 5.79). This factor was called classroom diversity. All items loaded above 0.70. Internal consistency of the TESCD was measured by Cronbach's coefficient alpha. The 10 items showed satisfactory reliability ($\alpha = .91$). In addition, procedures were used to test the stability of the results by splitting the sample randomly into two sub-samples, which revealed no statistically significant differences.

Correlations among the TESCD and Bandura's Teacher Efficacy Scale, the Preparedness Scale, the Multicultural Questionnaire-Revised, the CCAI four subscales were conducted to determine whether these scales correlated. As it was expected, significant correlations were obtained between the TESCD and these scales confirming the conceptual relationships. Specifically, analyses showed that the TESCD was significantly correlated with CCAI-Perceptual Acuity ($r = .41, p < .001$), CCAI-Personal Autonomy ($r = .34, p < .001$), CCAI-Flexibility and Openness ($r = .41, p < .001$) and CCAI-Emotional Resilience ($r = .54, p < .001$). Correlational analyses also showed that the TESCD was significantly correlated with preparedness to teach survey ($r = .51, p < .001$), the MCR Knowledge Questionnaire ($r = .53, p < .001$) and the Teacher Efficacy Scale ($r = .60, p < .001$). All the correlations are depicted in Table 2.

5. Discussion

Overall, the results of the present study revealed that the TESCD has: (a) good construct and concurrent validity; (b) is a reliable instrument; and (c) provides additional support for Bandura's (1997) theory of self-efficacy. Although other studies (e.g., Sitwatu, 2007, 2011) have investigated teaching efficacy in a cultural context, this scale is unique in terms of the scenario approach to assessing teacher efficacy beliefs because it attempts to place teachers into situations that require them to reflect on their perceived level of efficacy to address a specific cultural problem in a classroom setting.

Research evidence consistently indicates that multicultural competence can promote cross-cultural understanding, fewer emotional and behavioral problems (Gazda, Ginter, & Horne, 2001; Salzman & D'Andrea, 2001), and higher levels of academic achievement (Gay, 2002) among schoolchildren. In fact, effective multicultural teachers have the ability to view events in the classrooms from various cultural perspectives and possess the skills to provide instruction tailored to the students' cultures (McCown, Driscoll, & Roop, 1996). They are sensitive and knowledgeable with regard to the cultural differences of their students, thus can develop strategies to understand, educate, and assist in adapting to cultural differences.

Findings of this study may have some practical implications regarding teacher preparation programs. Having an instrument available to assess the efficacy beliefs of preservice teachers may provide important information about the effectiveness of these programs in preparing multiculturally competent teachers. This in turn would aid in the design of effective multicultural educational programs and interventions that meet the teachers' educational institutions' and society's specific needs.

In addition to using the TESCD as a vehicle to improve existing teacher preparation programs, it may also serve as a screening tool, and provide teachers who are not ready to teach in diverse settings with additional training during their teacher preparation programs. For example, a new teacher who is about to teach a multicultural class, but his/her student teaching was conducted in a less diverse student setting, may call for additional course training in the area of multiculturalism. Similarly, preservice teachers living in rural environments, but planning to teach in urban settings, may need additional coursework in student diversity prior to graduating. Finally, the TESCD may also serve as a tool for continuing education for in-service teachers. Teachers in service who are planning to move or need to refresh or polish their skills in dealing with our growing diverse student populations may need to consider assessing these skills, and then enrolling in appropriate coursework, as needed.

Recommendations for helping educators to build their efficacy beliefs to teach diverse students populations effectively include observing other more experienced teachers using culturally relevant teaching strategies. Additionally, efficacy measures may provide educators with more guidance in terms of the current level of efficacy of teachers and desired level of efficacy that they aim to instill. Depending on the efficacy scores that the teachers receive on each source of diversity more focus could be placed on developing professional development goals aligned with the specific needs of the sample of teachers.

Future studies should be conducted using the TESCD with in-service teachers to further test its psychometrics properties. In addition, longitudinal studies with preservice teachers becoming in-service teachers may provide evidence for criterion related validity. Limitations of the present study include the use only of self-reported measures to validate the scale.

References

- Ambrosio, A.L. (2001). *ESU Multicultural/Diversity Assessment Project*. Emporia, Kansas: Emporia State University.
- Arzubiaga, A. E., Nogueron, S. C., & Sullivan, A. L. (2009). The education of children in im/migrant families. *Review of Research in Education*, 33(1), 246-271.
- Ashton, P., Buhr, D., & Crocker, L. (1984). Teachers' sense of efficacy: A self- or norm referenced construct? *Florida Journal of Educational Research*, 26 (1), 29-41.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (1998). *Teacher self-efficacy scale*. Available online at: <http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm#Ban>
- Bandura, A. (2001). Guide for constructing self-efficacy scales. In G. V . Caprara (Ed.). *La valutazione dell 'autoefficacia* [The assessment of self-efficacy] (pp. 15-37) Trento, Italy: Erickson.
- Bennett, C. (2001). Genres of research in multicultural education. *Review of Educational Research*, 71, 171-217.

- Enochs, L. G., & Riggs, I. M. (1990). Further development of an elementary science teaching efficacy belief instrument: A preservice elementary scale. *School Science and Mathematics*, 90(8), 695-706.
- Friedman, I.A., & Kass, E. (2002). Teacher self-efficacy: A classroom-organization conceptualization. *Teaching & Teacher Education*, 18, 675-686.
- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53, 106-116.
- Gazda, G., Ginter, E., & Horne, A. (2001). *Group counseling and group psychotherapy*. Boston: Allyn & Bacon.
- Gibson, S., & Dembo M.H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569-582.
- Grieco, E. M., & Trevelyan, E. N. (2010). *Place of birth of the foreign-born population: 2009*. Retrieved January, 13, 2011, from: <http://www.census.gov/prod/2010pubs/acsbr09-15.pdf>
- Gusky, T.R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching & Teacher Education*, 4, 63-69.
- Kelley, C., & Meyers, J. (1995) *Cross-cultural Adaptability Inventory*. Minneapolis, MN: National Computer Systems.
- Knoblauch, D., & Woolfolk Hoy, A. (2008). "Maybe I can teach those kids." The influence of contextual factors on student teachers' efficacy beliefs. *Teaching and Teacher Education*, 24, 166-179.
- Larkin, J. M (1995). Curriculum themes and issues in multicultural teacher education programs. In J.M. Larkin and C.E. Sleeter (Eds.). *Developing Multicultural Teacher Education Curriculum*, (pps.1-16), State University of New York Press, Albany.
- McCown, R., Driscoll, M., & Roop, P.G. (1996). *Educational psychology: A learning-centered approach to classroom practice* (2nd ed.). Boston, MA: Allyn & Bacon Publishers.
- Rios, F.A., McDaniel, J.E., & Stowell, L.P. (1998). Pursuing the possibilities of passion: The affective domain of multicultural education. In M.E. Dilworth (Ed.). *Being responsive to culturally differences* (pp. 160-181). Thousand Oaks, CA: Corwin Press.
- Salzman, M., & D'Andrea, M. (2001). Assessing the impact of a prejudice prevention project. *Journal of Counseling and Development*, 79, 341-346.
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications* (3rd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and Teacher Education*, 23, 1086-1101.
- Siwatu, K. O. (2011) Preservice teachers' sense of preparedness and self-efficacy to teach in America's urban and suburban schools: Does context matter? *Teaching and Teacher Education* (27), 357-365 doi:10.1016/j.tate.2010.09.004
- Sleeter, C.E. (2001). Preparing teachers for culturally diverse schools: Research in the overwhelming presence of Whiteness. *Journal of Teacher Education*, 52, 94-106.
- Tournaki, N., & Podell, D. M. (2005). The impact of student characteristics and teacher efficacy on teachers' predictions of student success. *Teaching and Teacher Education*, 21, 299-314.
- Tschannen-Moran, M. & Hoy, A.W. (2001). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

U.S. Bureau of the Census, (2003). Retrieved 9/01/05 from <http://www.census.gov/>

U.S. Bureau of the Census, (1990). Retrieved 9/01/05 from <http://www.census.gov>

<i>Table 1: Means, Standard Deviations, and Factor Loadings of the Teacher Efficacy Scale for Classroom Diversity (TESCD)</i>				
Items	Teacher Efficacy Scale for Classroom Diversity (TESCD)	Mean	SD	Factor Loading
1.	You are teaching a diverse class with some students for whom English is a second language. When you teach, you encounter several verbal communication problems that confine comprehension of instructional material and effective discussions in the classroom. How certain are you that you can use strategies that enhance and maintain verbal communication in the classroom?	66.10	10.7	.80
2.	You are teaching a racially diverse class. Often during class discussions related to racial issues create friction which leads to hostility among the students. How certain are you that you can create a learning environment where your students can discuss these issues without being racially biased?	71.20	1.5	.78
3.	You are teaching a class consisting of an approximately equal number of male and female students. You have noticed that many girls and boys firmly reject activities, role playing, and academic subjects that they believe are inconsistent with their gender schemata. How certain are you that you can develop a classroom environment that encourages your students to adhere to nontraditional gender stereotypes?	77.35	1.32	.79
4.	You are teaching a culturally heterogeneous class. You have observed that most of your students experience "cultural mismatch" between their homes and school culture. For example, some of your students have different standards about what behaviors are appropriate in the classroom. How certain are you that you can help your students to successfully adjust to the school environment?	77.31	1.29	.77
5.	You are teaching a class with students from diverse backgrounds that are at risk for academic failure. You have noticed that these students show signs of low self-esteem, disinterest in school activities, and at times exhibit disruptive behavior. How certain are you that you can develop culturally-related context activities to encourage your students to participate in academic classroom tasks?	77.01	10.45	.81
6.	You are teaching a class with students from various ethnic backgrounds with different traditions, customs, conventions, values, and religious beliefs. You notice that some of your students have trouble tolerating one another's differences. How certain are you that you can provide your students with opportunities that foster awareness and appreciation of cultural differences?	77.30	10.47	.82

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7.	You are teaching a culturally diverse class. You have noticed that your ethnically diverse students show different learning modality preferences (e. g., written vs. auditory). For example, some of your students prefer listening to a tape of their reading assignment while reading rather than only reading it. How certain are you that you can create a learning environment that accommodates your students' modality preferences?	77.51	10.30	.74
8.	You are teaching a class with students from various socioeconomic backgrounds. Some of these students show lower aspirations for academic achievement, are often lethargic, seem isolated in class, and rejected by their more economically advantaged peers. How certain are you that you can create a favorable climate that will promote social interaction among your students?	72.40	10.31	.82
9.	You are teaching a unit in religion. Your students' religious beliefs vary considerably and classroom discussions of different religions would be a challenging task. How certain are you that you can ensure that your students develop appreciation and respect for religious diversity?	76.13	10.32	.75
10.	You are teaching students whose cultural climate (e.g., values, norms, school expectations etc.), differs substantially from that of the school and community. In fact, sometimes your expectations may conflict with the students' personal beliefs and values. How certain are you that you can help your students understand how the school's core curriculum relates to their own cultural climate and life needs?	77.32	10.44	.77
Note: Scale ranges from 0 (Cannot do it at all) - 100 (Highly certain can do)				

Table 2: Correlations among all the variables

	1	2a	2b	2c	2d	3	4	5
1. TESC	1.00							
2a. CCAI-Perceptual Acuity	.41**	1.00						
2b. CCAI-Personal Autonomy	.34**	.43**	1.00					
2c. CCAI-Flexibility and Openness	.41**	.49**	.28**	1.00				
2d. CCAI-Emotional Resilience	.54**	.65**	.52**	.55**	1.00			
3. Preparedness Survey	.41**	.30**	.25*	.41**	.41**	1.00		
4. MCR Knowledge	.53**	.41**	.28**	.48**	.39**	.35**	1.00	
5. Teacher Efficacy Scale	.60**	.39**	.42**	.36**	.36**	.46**	.41**	1.00

** = $p < .001$