

Comparing Cross-Cultural Multicultural Self-Awareness among K-12 In-Service School Teachers

Chieko Koyama: Troy University

Shawn Plash: Troy University

Kirk Davis: Troy University

The present study explored multicultural self-awareness among 134 K-12 in-service school teachers using the Cultural Diversity Awareness Inventory (CDAI). The results were compared to Yeung's (2006), allowing for a comparison between Eastern and Western cultures. A composite score was generated for each of the five areas measured by the CDAI. A chi-square was then conducted to determine whether teachers from an Eastern or Western culture responded differently. A statistically significant difference at the .05 level was found in all five areas with teachers from an Eastern culture were more likely to strongly agree/agree in all five areas.

Research on multicultural self-awareness has been primarily conducted with pre-service teachers (Brown, 2004; Larke, 1990; Milner, Flowers, Moore, Moore, & Flowers, 2003). As a consequence, there is a dearth of studies that have investigated in-service school teachers. For this reason, the current study was conducted to further understand how in-service school teachers perceive themselves in today's culturally diverse teaching environment. Furthermore, using the study by Yeung (2006), a cultural comparison between American in-services teachers and Chinese in-service teachers in Hong Kong was made.

Cultural diversification in American classrooms is emerging as an additional challenge for school teachers in this ever-changing world of teaching (Banks, 2007). Today, school age children represent diverse affiliations in race, culture, socio-economic status, and language more than

ever before. Children no longer live in monoracial or monocultural environments and are expected to reside harmoniously with members from cultural groups different from their own. To teach successfully in culturally diverse classrooms, school teachers need to become more aware of their own multicultural perceptions as their beliefs and behaviors affect the academic and social skill development of their students (Taylor & Quintana, 2003). Teachers should be expected to demonstrate professional competencies that will enable them to work more effectively, respectfully, and ethically among school children with racially and culturally diverse backgrounds.

Since the mid-1960s, a major factor affecting demographic changes in the United States has been the growing number of immigrants entering the United States from countries throughout the world (Daniels, 2008). In 1995, one in seven

children enrolled in public schools spoke a language other than English at home. In 2007, this number rose to one in five children (U.S. Census Bureau, 2009). Further, this trend is projected to continue (U.S. Census Bureau, 2008), and by the year of 2050, the enrollment of ethnic minority students at all levels in public school is estimated to be nearly 50% (National Center for Education Statistics [NCES], 2010a). While the population of ethnic minority students in schools is changing dramatically, the characteristics of teachers and administrators remain largely unchanged. From 1971 to 1991, approximately 88% of public school teachers were White (Yasin, 1999), yet data from 2007-2008 showed a decrease in the number of White teachers to 83% (NCES, 2010b). The ethnic composition of the remaining teachers were: African American (6.9%), Hispanic (7.2%), Asian (1.3%), Native Hawaiian/Pacific islander (0.2%), American Indian/Alaska Native (0.5%) (NCES, 2010b). The prevalence by White principals at all levels in both public and private schools continues despite a slight decline in the number from 83.9% in 1999-2000 to 82.9% in 2007-2008 (NCES, 2010c). The gap between the diversity in the student and teacher populations remains clearly notable.

Mismatch in cultural backgrounds between student and teacher does not inevitably preclude the effective teaching of students from culturally diverse backgrounds. However, the teachers' knowledge of their student's cultures, as well as of culturally appropriate teaching methods and materials, can influence these students' academic performance (Pope & Wilder, 2005). It has been argued that teacher education programs fail to design multicultural courses that fit into to traditional curricula (Banks, 2007). Additionally, these programs do not require pre-service teachers to acquire knowledge and skills that adequately address the needs of culturally diverse students, validate each of the cultural groups, and advocate equal access to educational opportunities (Pop & Wilder, 2005; Taylor & Whittaker, 2009). Further, and more importantly, these researchers indicate

that many teacher education programs fail to encourage pre-service teachers to examine their attitudes toward culturally diverse students. The values and beliefs that teachers hold affect their interaction with culturally diverse students. Their attitudes about these students can impact their relationships and consequently affect their learning experience and academic performance.

Method

Participants and Procedure

One hundred and thirty four K-12 teachers in a city school system near a mid-size Army base in the southeast region of the United States participated in the current study. These participants (55% in elementary) were females (89%), Whites (86%), Blacks (10%), as well as Latinos and Native Americans (1%) with the median age of 42. More than half of the participants (59%) had a, at least, master's degree and beyond with more than 10 years of teaching experience (64%). The majority of the participants (87%) had taught English as Second language (ESL) students but had taken no academic diversity courses (60%). Participation was solicited to K-12 teachers by a survey package individually mailed to the school in which they were employed. The survey return rate was 31%.

Instruments

The Cultural Diversity Awareness Inventory (CDAI) was used to explore K-12 in-service teachers' self-perception in regard to their attitudes, beliefs, and behaviors toward cultural diverse students. The CDAI was originally created by Henry (1986) and later modified by Larke (1990). The current study used Larke's version of CDAI, which is a self-administered inventory consisting of 27 opinion statements using a 5-point Likert scale (e.g., 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree). The responses to these 27 statements are categorized into five areas: (1) general cultural

awareness, (2) culturally diverse family, (3) cross-cultural communication, (4) assessment, and (5) creating a multicultural environment using multicultural methods and materials. In addition, a demographics sheet consisting of ten questions was used to obtain background information of the participants.

Results

Response frequencies for each question were computed using the data collected from CDAI and are reported in Table 1 alongside the results obtained by Yeung (2006). Additionally, in order to compare these findings with those obtained by Yeung, five mean composite scores were created for each of the five areas measured by the CDAI. The composite scores were computed by finding the mean for all of the strongly agree/agree, neutral, and strongly disagree/disagree responses in each of the five areas measured. By computing an average frequency for the five areas, it was possible to compute a chi-square for each area rather than 27 chi-squares using each separate question.

Regarding the area of cultural awareness, over 70% of the participants in the current study were not surprised when members of certain ethnic groups contributed to particular school activities. Further, more than half the participants indicated that students who had different values from their own did not make them feel uncomfortable (64.2%), and they did not prefer working with students and their parents who shared a culture with them (57.5%). In regard to the cross-cultural comparison between this study and the study by Yeung (2006), a chi-square analysis found a statistically significant difference in the area of cultural awareness, $\chi^2(2, N = 134) = 19.32, p < .001$. The participants in Yeung's study (42.86%) were more likely to respond strongly agree/agree than the participants in the current study (16.67%).

Regarding the area of teachers' perception of culturally diverse family, over half of the participants indicated that they had not experienced

frustration in conferences with parents of different cultures (60.4%). Many participants supported the views in which on-going parent input in program planning was necessary (56.7%) and a conference or program planning were scheduled at the parents convenience (56.7%). Further, slightly more than half in-service teachers did not think that they should ask families their preference for ethnic identification at the initial meeting (53.7%). Similar to the previous cross-cultural comparison, a chi-square analysis indicated a statistically significant difference in the perception on the culturally diverse family between American in-service teachers and those of Chinese in Hong Kong (Yeung, 2006), $\chi^2(2, N = 134) = 10.32, p < .01$. The participants in Yeung's study (46.94%) were more likely to respond strongly agree/agree than the participants in the current study (32.82%).

Among the four statements measured regarding cross-cultural communication, the only statement with which more than half the participants (58.2%) agreed was: regular curriculum should include ESL for non-English speaking children. Less than half the participants disagreed with the following statements: teachers were not uncomfortable with people who speak nonstandard English (48.5%) and students' spoken language should be corrected by modeling without any further explanation (46.3%). Between these statements, close to half the participants marked their responses as neutral to the former statement (42.5%) and over a third indicated their opinion as neutral (35.8%) for the latter statement. Further, over 40% of the participants did not answer agree or disagree for the statement whether non-standard English should be ignored sometime (44.8%). In regard to the cross-cultural comparison between the current study and Yeung's study (2006), statistically significant difference was also found, $\chi^2(2, N = 134) = 6.13, p < .05$, in the area of cross-cultural communication. The participants in Yeung's study (30.61%) were more likely to respond strongly agree/agree than the participants in the current study (28.46%).

The participants' responses in the area of assessment were evenly spread among the answer choices rather than concentrated in one particular area. The statement chosen most often by the participants was that they did not believe that translating a standardized achievement or intelligence test to a child's dominant language gave the child an added advantage (48.5%). Slightly over 40% of respondents were neutral to the opinion that adaptations in standardized assessments are questionable since it alters reliability and validity (43.3%) and were disagree/strongly disagree to the statement that student should be referred for testing if learning difficulties appear to be due to cultural or language differences (42.5%). An analysis by chi-square found statistically significant difference in the assessment area between the current study and that of Yeung's (2006), $\chi^2(2, N = 134) = 28.77, p < .001$. Among the five cultural diversity areas measured by CDAI, assessment was the area most statistically significantly different between the current study and Yeung's study. The participants in Yeung's study (54.08%) were more likely to respond strongly agree/agree than the participants in this study (25.38%).

Regarding the area of creating a multicultural environment using multicultural methods and materials, the majority of the participants disagreed with the following statements; teachers should not provide opportunities for children to share cultural differences (88.1%), I would accept the use of ethnic jokes/phrases by children (80.6%), I believe that the solution to communication problems of certain ethnic groups is the child's own responsibility (72.4%), I believe that there are times when racial statements should be ignored (71.6%), and one's knowledge of a particular culture should affect one's expectation of the children's performance (53.0%). Further, more than half the participants agreed that each child should be involved in a regular rotating schedule for classroom job assignments (76.1%), classroom displays and materials should reflect multiple cultural groups (65.7%), and teachers should make program adaptation to accommodate

diversity (54.5%). In regard to the cross-cultural comparison between the current study and Yeung's study (2006), a statistically significant difference was also found, $\chi^2(2, N = 134) = 16.12, p < .001$, in the area of creating a multicultural environment using multicultural methods and materials. The participants in Yeung's study (49.48%) were more likely to respond strongly agree/agree than the participants in the current study (27.82%).

Prior to further discussion, research limitations need to be acknowledged. The data of this study was not collected randomly, so that implications for generalization are limited. Composite scores were used for the cross-cultural comparison with the study by Yeung (2006), which may have influenced the results foreseeing manner.

Discussion

Multicultural self-awareness among 134 K-12 in-service school teachers was determined using the CDAI. The CDAI measures five areas of multicultural awareness: cultural awareness, culturally diverse family, cross-cultural communication, assessment, and creating a multicultural environment. The results from the current study were compared to those obtained by Yeung (2006) to determine how teachers from the two cultures (Eastern vs. Western) differed with respect to the five areas measured by the CDAI.

The participants in the Yeung's study (2006) were more likely to respond as Strongly Agree or Agree for all five areas. The order from the most difference to the least difference between the two studies was assessment, cultural awareness, creating a multicultural environment using multicultural methods and materials, culturally diverse family, and cross-cultural communication.

Although the two groups differed significantly in all five areas, it is impossible to say with certainty that the differences were due to cultural difference between Eastern and Western.

The participants from a single study should not be construed as necessarily being representative of an entire culture. In addition, because detailed demographics were not reported by Yeung (2006), it is uncertain how the participants from the current study differed from those in Yeung's study. Therefore, variables such as years of teaching experience, age, and gender could not be controlled. Future studies contrasting Eastern and Western cultures should be conducted in such a way as to control for these demographic variables. Lack of research on multicultural self-awareness among school teachers is evident. A replication of the current study in different settings and with populations both in-service and pre-service teachers should yield interesting comparisons with the results of this study.

References

- Banks, J. A. (2007). *Race, culture, and education: The selected works of James A. Banks*. New York, NY: Routledge.
- Brown, E. L. (2004). The relationship of self-concepts to changes in cultural diversity awareness: Implications for urban teacher educators. *The Urban Review*, 36(2), 119-145.
- Daniels, R. (2008). The immigration act of 1965: Intended and unintended consequences. In the U.S. Department of States, Bureau of International Information Programs (Ed.), *Historians on America: Decisions that made difference* (pp. 76-83). Retrieved from <http://www.america.gov/media/pdf/books/historians-on-america.pdf>
- Henry, G. (1986). *Cultural Diversity Awareness Inventory*. Hampton, VA: Hampton University. Mainstreaming Outreach Project. ERIC Document Reproduction Service No. ED 282 657.
- Larke, P. J. (1990). Cultural diversity awareness inventory: Assessing the sensitivity of preservice teachers. *Action in Teacher Education*, 12(3), 23-30.
- Milner, H. R., Flowers, L. A., Moore, E., Jr., Moore, J. L., III, & Flowers, T. A. (2003). Preservice teachers' awareness of multiculturalism and diversity. *High School Journal*, 87(1), 63-70.
- National Center for Educational Statistics. (2010a). Status and trends in the education of American Indians and Alaska natives: 2008. Retrieved from http://nces.ed.gov/pubs2008/nativetrends/tables/table_1_1c.asp
- National Center for Educational Statistics. (2010b). Characteristics of full-time school teachers. Retrieved from <http://nces.ed.gov/programs/coe/2010/section4/table-tsp-1.asp>
- National Center for Educational Statistics. (2010c). Characteristics of school principals. Retrieved from <http://nces.ed.gov/programs/coe/2010/section4/table-pal-1.asp>
- Pope, J., & Wilder, J. (2005). Now that I'm out in the field: Student teaching and valuing diversity. *Journal of Instructional Psychology*, 32(4), 322-328.
- Taylor, G. M., & Quintana, S. M. (2003). Teachers' multicultural competencies. In D. B. Pop-Davis, H. L. K. Coleman, W. M. Liu, & R. L. Toporek (Eds.), *Handbook of multicultural competencies in counseling psychology* (pp. 511-527). Thousand Oaks, CA: Sage.
- Taylor, L., & Whittaker, C. R. (2009). *Bridging multiple worlds: Case studies of diverse educational communities* (2nd ed.). New York, NY: Pearson.
- U.S. Census Bureau (2008). An older and more diverse nation by midcentury. Retrieved from <http://www.census.gov/newsroom/releases/archives/population/cb08-123.html>
- U.S. Census Bureau (2009). Characteristics of people by language spoken at home. Retrieved from http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=01000US&-qr_name=ACS_2007_3YR_G00_S1601&-ds_name=ACS_2007_3YR_G00_-&-lang=en&-redoLog=false&-CONTEXT=st
- Yasin, S. (1999). *The supply and demand of elementary school teachers in the United States*. Washington, DC: ERIC Clearinghouse on teaching and teacher education (ERIC Document Reproduction Services No.

ED436529). Retrieved from <http://www.ericdigests.org/2000-3/demand.htm>

Yeung, A. S. W. (2006). Teachers' conceptions of borderless: A cross-cultural study on multicultural sensitivity of the Chinese Teachers. *Educational Research for Policy and Practice*, 5, 33-53.

Author's Note

Dr. Chieko Koyama is a licensed professional counselor and a counselor educator at Troy University Dothan Campus. Her research interests include diversity issues in counseling and education.

Dr. Shawn Plash holds a doctorate in Curriculum and Instruction and teaches at Troy University Dothan Campus. Her interest lies in secondary education and science.

Dr. Kirk Davis holds a doctorate in experimental psychology, loves statistics, and currently serves as department chair of counseling and psychology at Troy University Dothan Campus.

Table 1.
Summary of Cultural Diversity Awareness Inventory

	Current Study (n = 134)			Yeung ^a (n= 100)		
	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)
Cultural Awareness						
Cultural different between teacher and student	40 (29.9)	48 (35.8)	45 (33.6)	53 (53.0)	14 (14.0)	31 (31.0)
Important to identify students by ethnic group	47 (35.1)	56 (41.8)	30 (22.4)	92 (92.0)	8 (8.0)	0 (0.0)
Prefer to work with students share my culture	12 (9.0)	44 (32.8)	77 (57.5)	24 (24.0)	56 (56.0)	20 (20.0)
Uncomfortable with people who have values different from me	9 (6.7)	39 (29.1)	86 (64.2)	34 (34.0)	24 (24.0)	42 (42.0)
Surprised at minority participation in traditional non-minority school activities	2 (1.5)	35 (26.1)	96 (71.6)	10 (10.0)	22 (22.0)	68 (68.0)
Composite Score $\chi^2 (2, N = 134) = 19.32, p < .001$	(16.7)	(33.3)	(50.0)	(42.9)	(24.5)	(32.7)

Table 1. continued

	Current Study (n = 134)			Yeung ^a (n= 100)		
	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)
Culturally Diverse Family						
Teachers should establish parent interactions outside school activities	54 (40.3)	55 (41.0)	25 (18.7)	50 (50.0)	46 (46.0)	2 (2.0)
Necessary to include parent input in program planning	76 (56.7)	49 (36.6)	8 (6.0)	68 (68.0)	32 (32.0)	0 (0.0)
Schedule IEP conference or program planning at parent convenience	76 (56.7)	50 (37.3)	7 (5.2)	70 (70.0)	18 (18.0)	8 (8.0)
Schedule include family view of school and society in school program planning	53 (39.6)	37 (27.6)	44 (32.8)	52 (52.0)	46 (46.0)	2 (2.0)
Experience frustrations in conferences with parents of different cultures	10 (7.5)	42 (31.3)	81 (60.4)	26 (26.5)	34 (34.7)	38 (38.8)
Parents know little about assessing their own children	22 (16.4)	54 (40.3)	58 (43.3)	36 (36.0)	46 (46.0)	18 (18.0)
During initial meetings, teachers should ask families their preference for ethnic identification	16 (11.9)	41 (30.6)	72 (53.7)	16 (16.0)	50 (50.0)	34 (34.0)
Composite Score $\chi^2 (2, N = 134) = 10.32, p < .01$	(32.8)	(35.1)	(32.1)	(46.9)	(38.8)	(14.3)
Cross-Cultural Communication						
Uncomfortable with people who speak nonstandard English	11 (8.2)	57 (42.5)	65 (48.5)	26 (26.0)	26 (26.0)	48 (48.0)
Students' spoken language should be corrected by modeling without explanation	20 (14.9)	48 (35.8)	62 (46.3)	2 (2.0)	6 (6.0)	92 (92.0)
Sometimes non-standard English should be ignored	42 (31.3)	60 (44.8)	28 (20.9)	28 (28.0)	38 (38.0)	32 (32.0)
Regular curriculum should include ESL for non-English speaking Children	78 (58.2)	40 (29.9)	14 (10.4)	62 (62.0)	28 (28.0)	10 (10.0)
Composite Score $\chi^2 (2, N = 134) = 6.13, p < .05$	(28.5)	(39.2)	(32.3)	(30.6)	(24.5)	(44.9)

Table 1 continued

	Current Study (n = 134)			Yeung ^a (n= 100)		
	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)	SA/A ^b N (%)	N ^c N (%)	SD/D ^d N (%)
Assessment						
Students should be referred for testing if learning difficulties appear to be cultural or language differences	40 (29.9)	36 (26.9)	57 (42.5)	52 (52.0)	34 (34.0)	12 (12.0)
Adaptations in standardized assessments to be question the alter reliability and validity	30 (22.4)	58 (43.3)	40 (29.9)	32 (32.0)	49 (49.0)	14 (14.0)
Give standardized or intelligence test in child's dominant language	31 (23.1)	36 (26.9)	65 (48.5)	73 (73.4)	16 (16.3)	10 (10.2)
Composite Score $\chi^2 (2, N = 134) = 28.77, p < .001$	(25.4)	(33.1)	(41.5)	(54.1)	(33.7)	(12.2)
Creating A Multicultural Environment Using Multicultural Methods and Materials						
Accept the use of ethnic jokes/phrases by children	2 (1.5)	24 (17.9)	108 (80.6)	12 (12.0)	10 (10.0)	76 (76.0)
Sometimes ignore racial statements	9 (6.7)	29 (21.6)	96 (71.6)	16 (16.0)	32 (32.0)	50 (50.0)
Solution to communication problems of certain ethnic groups is child's own responsibility	2 (1.5)	35 (26.1)	97 (72.4)	32 (32.0)	26 (26.0)	42 (42.0)
Teachers should provide opportunities for children share cultural differences	3 (2.2)	13 (9.7)	118 (88.1)	63 (63.0)	35 (35.0)	0 (0.0)
Teachers should make program adaptation to accommodate diversity	73 (54.5)	50 (37.3)	7 (5.2)	65 (65.0)	31 (31.0)	2 (2.0)
Displays and materials should reflect at least three cultural groups	88 (65.7)	36 (26.9)	10 (7.5)	22 (22.0)	58 (58.0)	18 (18.0)
Cultural knowledge should affect teacher expectation	17 (12.7)	45 (33.6)	71 (53.0)	75 (75.0)	21 (21.0)	2 (2.0)
Student jobs assignments should rotate regularly and equally in job assignments	102 (76.1)	24 (17.9)	6 (4.5)	98 (98.0)	0 (0.0)	0 (0.0)
Composite Score $\chi^2 (2, N = 134) = 16.12, p < .001$	(27.8)	(24.1)	(48.1)	(49.5)	(26.8)	(23.7)

Note. ^aYeung (2006); ^bSA/A = Strongly Agree and Agree; ^cN = Neutral; ^dSD/D = Strongly Disagree and Disagree.