

**Increasing Intercultural Sensitivity among  
First-Year Undergraduate Students:  
A Pilot Study**

**Jeanine L. Romano  
University of Tampa**

**Kimberly M. Cummings  
University of Tampa**

**James. T. Coraggio  
University of South Florida**

**Jeffrey D. Kromrey  
University of South Florida**

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## Introduction

Because of the diversity of U.S. institutions of higher learning, many colleges and universities have recognized the need for intercultural competency and have developed curricula specifically designed to increase students' intercultural awareness. The American Council on Education (ACE) maintains that curriculum should be the vehicle to provide students the skills and competencies to live and work in a globalized, multicultural world (<http://www.acenet.edu>).

The Developmental Model of Intercultural Sensitivity (DMIS), developed by Bennett (1986, 1993), attempts to explain the stages through which individuals progress as they become more experienced in intercultural relations. The model indicates that individuals move from an ethnocentric orientation (labeled denial, defense and minimization) toward a more ethnorelative orientation (labeled acceptance, adaptation, and integration) as they become more interculturally competent. Bennett has suggested that one's orientation toward intercultural relations can be changed by various methods, including curricular activities that foster a greater appreciation and understanding of how one's own culture can be experienced in light of other cultures.

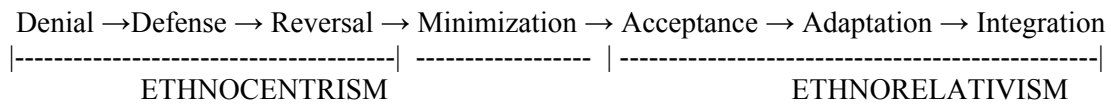
The measure developed to assess both individual and group orientation toward cultural sensitivity is the Intercultural Development Inventory (IDI), a 50-item self-report measure based on Bennett's DMIS. The IDI can be used both as a tool for increasing individual or group cultural sensitivity and as a measure of any intercultural sensitivity changes over time.

This paper presents the results from a pilot study that was conducted at a small private institution that implemented a curriculum specifically designed by J.M. Bennett and M.J. Bennett (2004) to help increase an individual's intercultural sensitivity. The IDI was used both as a pre and post measure to determine the extent to which the curriculum had an impact on the students' intercultural sensitivity. In addition to the results of this pilot study, this paper will also discuss some of the psychometric properties of the IDI and the issues surrounding them.

*Some background on the IDI and DMIS.*

In Bennett's developmental model of intercultural sensitivity (DMIS), six orientations are defined: *Denial*, *Defense*, *Minimization*, *Acceptance*, *Adaptation* and *Integration*. The first three orientations are categorized on the pole of ethnocentrism and the last three are categorized on the pole of ethnorelativism (Figure 1). Ethnocentrism refers to the idea that one's own cultural experience is central to reality. Ethnorelativism refers to the idea that one's culture is

experienced within the context of other cultures. The IDI measures the examinee’s level of orientation on the DMIS.



*Figure 1: Developmental Model of Intercultural Sensitivity*

From. “Measuring intercultural sensitivity: The intercultural development inventory”. By M.R. Hammer, M.J. Bennett, and R. Wiseman, 2003, *International Journal of Intercultural Relations*, 27, p, 424.

The first three stages of the DMIS are considered the ethnocentric stages. Bennett defines *Denial* as a state in which an individual sees his/her culture as the only “real” one. Individuals in the *Denial* stage have a tendency to be somewhat unsympathetic to cultural differences. In the *Defense*, the individual sees their culture as the feasible one. They have a tendency to feel threatened by individuals from cultures other than their own. The third stage of the DMIS is the *Reversal* is very similar to the *Defense* stage except that in this stage the individual sees other cultures superior to his or her culture. In the *Reversal* stage an individual does not see other cultures as a threat but in a sense is ashamed of his or her own culture.

The fourth stage of the DMIS is *Minimization* which is considered a normative stage. In this stage the individual believes that his or her own cultural worldview is one of “universal absolutes”. Bennett maintains that these absolutes can cause important cultural differences to be minimized.

The last three stages of the DMIS are considered the ethnorelative stages. The first of these is *Acceptance*. In this stage the individual sees their complex culture as one of many complex cultures. The next stage, *Adaptation* is very similar to *Acceptance* except the individual in this stage can actually adapt his or her behavior to a different culture. The individual is more empathetic of other cultures. The final stage of the DMIS is the *Integration*. In this stage the individual is able to move in out of other cultures.

The IDI is a 50 item inventory, developed by Hammer, Bennett, and Wiseman (2003) based on the DMIS. The IDI is divided into five scales: Denial/Defense (D/D) scale, the Reversal (R) scale, Minimization (M) scale, Acceptance/Adaptation (A/A) scale, and the Encapsulated Marginality (E/M) scale. These items consist of five point response scale: 1=disagree, 2=disagree somewhat more than agree, 3=disagree some and agree some, 4=agree somewhat more than disagree, and 5=agree.

There are also two types of overall scores: developmental and perceived. The DD, R, M and AA scale scores were incorporated into a formula that produced a standardized score for both of these overall scores such that the scale had a mean 100 and a standard deviation of 15. According to

Hammer, Bennett and Wiseman (2003) theoretically the EM scale is viewed as an incomplete measure of the “Integration” stage in the DMIS theory and therefore is not used in the calculation of the total perceived or developmental scale. The perceived score is an overall average of the four scales and it is an indication of the examinee’s perceived intercultural strengths. In contrast, the developmental score assigns a greater weight to the larger difference between minimization and acceptance stages, and negatively weights the ethnocentric scores. The developmental score is considered the examinee’s actual location on the developmental continuum of the six intercultural sensitivity stages. Typically the developmental score is lower than the perceived score.

As a part of the first-year experience, all fulltime freshmen at the institution where this research was conducted are required to enroll in a course entitled Global Issues. The curriculum in this course typically consists of experiences and activities designed to enhance the students’ understanding of the global community.

#### Method

In the spring of 2006, a study was conducted using ten freshmen Global Issues course sections. When pre-tested, the students in these sections scored in the minimization stage of the developmental scale of the IDI. Their scores indicated that quite a bit of learning could occur within this stage. Specifically, students needed to develop greater cultural self-awareness. Five faculty each taught two classes: one that incorporated exercises that were a part of the DMIS curriculum and one that did not include this curriculum. The DMIS exercises were developed by Bennett and Bennett (2004) to help students understand that they do have a culture and were used to help them critically examine their own culture and cultural expectations. By doing so, it was expected that students who were part of the groups that received this curriculum would eventually be able to understand that other individuals also have a culture which may be different from their own, and will thus be more able to move toward an ethnorelative position. To gather evidence related to the impact of this curriculum, the IDI was administered to all ten classes at the beginning of the Spring semester and again at the end of the semester. The following are results of analyses that were conducted on the data collected for this study.

#### Repeated Measures ANOVA

In order to insure that the scores included in the analysis were from students that were present at both the pre and post administration, both sets of data were matched by student identification number. As a result of the matching, there were 69 scores from students who did not have the DMIS curriculum and 59 that did have the curriculum. A repeated measures ANOVA was conducted using these 128 scores, with between-subjects factors of curriculum and

faculty member. No statistically significant main effect differences were found  $F(1,118) = 2.54$ ,  $p = .11$ ,  $\eta^2 = .02$ . Basically there was no significant difference between the overall averages of the pre and post administration. There was a statistically significant interaction effect  $F(4,118) = 3.08$ ,  $p = .11$ ,  $\tau = .10$ , between faculty and the curriculum. The mean scores by faculty and administration are displayed in Figures 2 and 3. As one can see in Figure 2, the class averages were very similar for the pre test regardless of faculty member or curriculum. In Figure 3, the average for the DMIS section taught by faculty member 1 increased substantially but the other classroom averages remained stable.

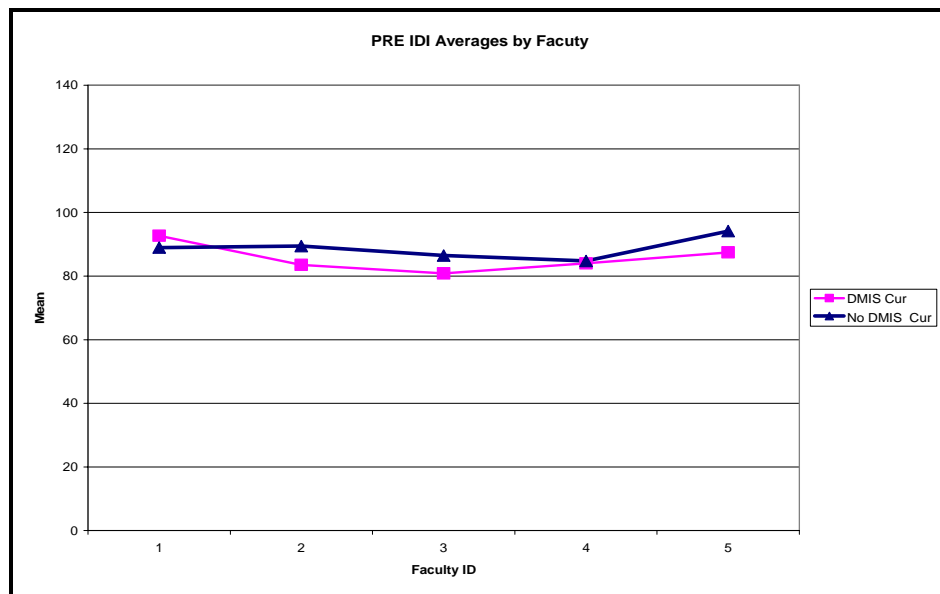


Figure 2 Pre IDI Mean Scores by Faculty

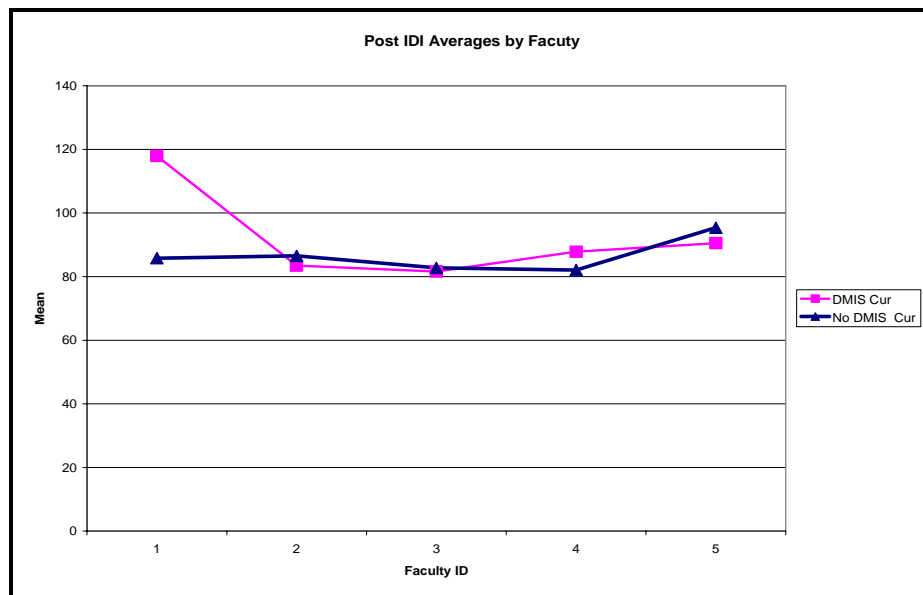


Figure 3 Post IDI Mean Scores by Faculty

### *Change at the Student Level*

As a part of the interpretation of the IDI, average scores were divided into three ordinal categories. An average score less than an 85 is at the Denial/Defense/Reversal level (DDR). A score between 85 and 115 is at the Minimization level (M). A score higher than 115 is at the Acceptance/Adaptation level (A/A). The pre and post test scores of the 69 students that did not receive the DMIS curriculum were evaluated in this fashion and the results are displayed in Table 1. The pre and post test scores of the 59 students that did receive the DMIS curriculum were also evaluated using these criteria and the results are displayed in Table 2. There were 6 students that improved by at least one category from the Non DMIS curriculum group and 16 students that improved from the DMIS curriculum group.

**Table 1**

PRE IDI Score	Post IDI Score			Grand Total
	Post IDI DD/R	Post M IDI	Post IDI AA	
PreIDI DD/R	24	4	1	29
Pre IDI M	13	22	1	36
Pre IDI AA			4	4
Grand Total	37	26	6	69

**Table 2**

Count of ID_Number PRE IDI	Post IDI Score			Grand Total
	Post IDI DD/R	Post M IDI	Post IDI AA	
Pre IDI DD/R	15	9	3	27
Pre IDI M	5	20	4	29
Pre IDI AA			3	3
Grand Total	20	29	10	59

A Chi-Square independence test was conducted on these data such that the 128 students were categorized as either improving or not improving ( i.e.; staying at the same level or moving down). The results were statically significant,  $\chi^2(1, N = 128) = 7.58, p = .006$ . Basically we can say that the proportion of students that were exposed to the DMIS and improved on the IDI was higher than those who did not receive the curriculum and this proportional difference was statically significant.

### *Limitations to Keep in Mind*

It is important to remember that not all faculty taught the same curriculum at the same time. The results of this study do not necessarily imply that the curriculum had a long lasting impact on the students' intercultural sensitivity. However the results of the Chi-square test provide some evidence that a greater proportion of students in the DMIS sections improved their IDI scores than students in the regular sections. Obviously there is more to a course than just the

curriculum. Perhaps a more controlled study in the future using this curriculum would give a clearer picture of its impact.

#### A Closer Look at the Intercultural Developmental Inventory

As stated earlier the Intercultural Developmental Inventory (IDI) was developed to measure intercultural sensitivity as defined by the Developmental Model of Intercultural Sensitivity (DMIS). While Hammer, Bennett and Wiseman (2003) argue that the scores from the IDI are valid and reliable measures of intercultural sensitivity, the psychometric properties of the IDI were further evaluated using these data. Since this was an evaluation of the properties of the IDI, all available observations from the study were included.

Recall that along with scores for the five separate scales of the IDI, scores for an overall perceived score and a developmental score are also reported for the IDI. A description of how the 50-items were chosen and developed was presented by Hammer, Bennett and Wiseman (2003). However, no literature was found that described the weighting of the developmental score. To investigate the weighting of the developmental scale a multiple regression was conducted using multiple sets of data. The developmental scores that were provided were regressed on the set of five subscales. To verify the accuracy of the regression weights a cross-validation was conducted on a new set of data using the regression weights to compute the perceived scores. The perceived scores calculated from these weights and the actual perceived scores that the IDI program produced were equal to within three decimal places. The constant or intercept of the regression equation was -45.71. The individual regression weights for each sub scale are presented in Table 3. Using the total value of the weights, the percentage associated with each sub scale was determined as shown in the table below. One third of the weighting is devoted to the DD-Scale and the R-Scale. The remaining third is separated between M-Scale (22.2%) and AA-Scale (11.1%). The weight for the EM-Scale is as mentioned previously in the paper is essentially zero.

Table 3  
*Regression weights for Developmental scale of the IDI*

Subscale	Weights	%
DD-Scale	12.85714	33.3%
R-Scale	12.85714	33.3%
M-Scale	8.57143	22.2%
AA-Scale	4.28571	11.1%
EM-Scale	0	
Total	38.57142	100.0%

Basically, an individual's perceived score is made up of the un-weighted scores of the DD, R, M and AA scales, while the developmental score would take the scores of these scales

and use these regression weights to adjust the overall score. While this tells us how the developmental scale is calculated, there is still no answer as to why this particular weighting scheme is used.

In addition to investigating the weighting of the developmental scale, item descriptive statistics, scale descriptive statistics, and a confirmatory factor analysis were computed using all the observations from the post test results (n = 151).

### Descriptive Item Statistics

#### *Denial/Defense (D/D) scale*

The Denial/Defense scale contained thirteen items separated into three clusters: disinterest, avoidance, and defense. Descriptive statistics were calculated for the thirteen items variables in the D/D scale as shown in Table 4. Each variable was evaluated in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis.

The means of the thirteen items ranged from 1.40 to 2.37, while the standard deviations ranged from 0.85 to 1.24. Generally accepted ranges for skewness and kurtosis are -1.0 to 1.0 and -0.5 to 1.5, respectively. The skewness values for these items ranged from 0.42 to 2.45 and the kurtosis values ranged from -1.14 to 6.04. Three of the thirteen items had questionable normality based on its skewness values (Item 1, item 38, and item 43) and six of the thirteen items had questionable normality based on their kurtosis values. The majority of items containing questionable values were only slightly outside the accepted range of normality. One noticeable exception was Item 1 which had skewness value of 2.45 and a kurtosis value of 6.04.

**Table 4**

*Mean, standard deviation, minimum, maximum, skewness, and kurtosis for the D/D Scale  
N=151*

Item #	Cluster	Min	Max	Mean	Std Dev	Skewness	Kurtosis
1	Denial	1	5	1.40	0.85	2.45	6.04
17	Denial	1	5	2.11	1.18	0.76	-0.35
27	Denial	1	5	2.19	1.22	0.77	-0.41
35	Denial	1	5	2.37	1.24	0.38	-0.93
38	Avoidance	1	5	1.62	1.03	1.59	1.72
43	Avoidance	1	4	1.52	0.87	1.55	1.25
48	Avoidance	1	5	2.17	1.16	0.64	-0.50
15	Defense	1	5	2.07	1.13	0.62	-0.72
22	Defense	1	5	1.99	1.11	0.85	-0.23
34	Defense	1	5	2.09	1.10	0.61	-0.50
39	Defense	1	5	2.19	1.20	0.42	-1.14
40	Defense	1	5	2.00	1.11	0.69	-0.72
42	Defense	1	5	2.11	1.09	0.63	-0.43

### *Reversal (R) scale*

The Reversal (R) scale contained nine items. Descriptive statistics were calculated for the nine items variables in the R scale. Each variable was evaluated in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis. Table 5 displays the item descriptive statistics for the R scale.

The means of the nine items ranged from 1.98 to 2.80, while the standard deviations ranged from 0.98 to 1.35. The skewness values for these items were within this acceptable ranging with values from -0.01 to 0.77. The kurtosis values ranged from -1.28 to -0.17. Eight of the nine items had questionable normality based their kurtosis values. The majority of items containing questionable values were only slightly outside the accepted range of normality.

**Table 5**

*Mean, standard deviation, minimum, maximum, skewness, and kurtosis for the R Scale*

*N=151*

Item #	Min	Max	Mean	Std Dev	Skewness	Kurtosis
6	1	5	2.37	1.18	0.44	-0.64
18	1	5	2.61	1.35	0.15	-1.28
24	1	5	2.48	1.19	0.37	-0.68
28	1	5	1.99	0.98	0.46	-0.87
29	1	5	2.09	1.13	0.77	-0.17
31	1	5	1.98	1.11	0.66	-0.91
33	1	5	2.52	1.22	0.29	-0.78
37	1	5	2.80	1.32	-0.01	-1.13
44	1	5	2.39	1.21	0.41	-0.72

### *Minimization (M) scale*

The Minimization (M) scale contained nine items separated into two clusters: similarity and universalism. Descriptive statistics were calculated for the nine items variables in the M scale as displayed in Table 6. Each variable was evaluated in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis.

The means of the nine items ranged from 3.13 to 3.88, while the standard deviations ranged from 1.13 to 1.53. The skewness values for these items were all negatively skewed and within the acceptable range with values from -0.12 to -0.98. The kurtosis values ranged from -1.24 to -0.05. Seven of the nine items had questionable normality based their kurtosis values. The majority of items containing questionable values were only slightly outside the accepted range of normality.

**Table 6**

*Mean, standard deviation, minimum, maximum, skewness, and kurtosis for the M Scale*

*N=151*

Item #	Cluster	Min	Max	Mean	Std Dev	Skewness	Kurtosis
7	Similarity	1	5	3.43	1.53	-0.47	-1.24
30	Similarity	1	5	3.88	1.25	-0.98	0.05
36	Similarity	1	5	3.46	1.29	-0.43	-0.86
41	Similarity	1	5	3.21	1.36	-0.22	-1.07
45	Similarity	1	5	3.22	1.27	-0.26	-0.79
8	Universalism	1	5	3.33	1.13	-0.23	-0.50
16	Universalism	1	5	3.13	1.31	-0.15	-0.97
46	Universalism	1	5	3.43	1.13	-0.23	-0.53
49	Universalism	1	5	3.13	1.20	-0.12	-0.61

*Acceptance/Adaptation (A/A) scale*

The Acceptance/Adaptation (A/A) scale contained fourteen items separated into three clusters: acceptance, adaptation, and behavioral. Descriptive statistics were calculated for the fourteen items variables in the A/A scale as shown in Table 7. Each variable was evaluated in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis.

The means of the fourteen items ranged from 2.50 to 3.58, while the standard deviations ranged from 1.09 to 1.33. The skewness values for these items were all within this acceptable ranging with values from -0.56 to 0.27. The kurtosis values ranged from -1.04 to -0.04. Ten of the fourteen items had questionable normality based their kurtosis values. The majority of items containing questionable values were only slightly outside the accepted range of normality.

**Table 7**

*Mean, standard deviation, minimum, maximum, skewness, and kurtosis for the A/A Scale*

*N=151*

Item #	Cluster	Min	Max	Mean	Std Dev	Skewness	Kurtosis
3	Acceptance	1	5	3.11	1.29	-0.18	-0.95
5	Acceptance	1	5	3.40	1.27	-0.50	-0.71
21	Acceptance	1	5	3.34	1.18	-0.37	-0.51
23	Acceptance	1	5	3.58	1.09	-0.56	-0.04
47	Acceptance	1	5	3.17	1.12	-0.15	-0.55
9	Adaptation	1	5	3.33	1.26	-0.33	-0.81
12	Adaptation	1	5	3.15	1.19	-0.24	-0.68
13	Adaptation	1	5	2.93	1.10	-0.22	-0.48
14	Adaptation	1	5	3.26	1.20	-0.39	-0.60
4	Behavioral	1	5	2.61	1.33	0.23	-1.08
11	Behavioral	1	5	3.23	1.15	-0.36	-0.45
19	Behavioral	1	5	3.33	1.10	-0.35	-0.27
32	Behavioral	1	5	2.85	1.26	-0.03	-0.94
50	Behavioral	1	5	2.50	1.25	0.27	-1.04

*Encapsulated Marginality (EM) scale*

The last scale, Encapsulated Marginality (EM), contained five items. Descriptive statistics were calculated for the five items variables in the EM scale as shown in Table 8. Each variable was evaluated in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis.

The means of the five items ranged from 1.68 to 2.59, while the standard deviations ranged from 0.97 to 1.28. The skewness values for these items were all positive and ranged from 0.23 to 1.57 and the kurtosis values ranged from -0.92 to 1.74. One of the five items had questionable normality based on its skewness values (Item 10) and three of the five items had questionable normality based on their kurtosis values (Item 10, Item 25, and Item 26). The majority of items containing questionable values were only slightly outside the accepted range of normality. After reviewing the item descriptive statistics for each of the five scales, an analysis of the scales was conducted.

**Table 8**  
*Mean, standard deviation, minimum, maximum, skewness, and kurtosis for the EM Scale*  
*N=151*

Item #	Min	Max	Mean	Std Dev	Skewness	Kurtosis
2	1	5	1.68	0.97	1.26	0.79
10	1	5	1.69	1.06	1.57	1.74
20	1	5	2.00	1.21	1.09	0.22
25	1	5	2.59	1.28	0.23	-0.92
26	1	5	2.19	1.24	0.63	-0.67

#### *Scale Descriptive Statistics*

Descriptive statistics were calculated for the five scales variables on the IDI as shown in Table 9. Each scale was examined in terms of minimum, maximum, mean, standard deviation, skewness, and kurtosis.

The means of the five scales ranged from 2.64 to 4.01, while the standard deviations ranged from 0.65 to 0.85. The D/D had the highest mean score, while the M scale had the lowest mean score of the five scales. The skewness values for the five scales ranged from -0.72 to 0.25 and the kurtosis values ranged from -0.90 to 0.78. All the five scales produced skewness values indicating approximate normality. Two of the five had kurtosis values slightly outside of the acceptable range (D/D and R).

Table 9

*Mean, standard deviation, minimum, maximum, skewness, and kurtosis the individual scales  
N=151*

Scale	Items	Min	Max	Mean	Std Dev	Skewness	Kurtosis
D/D	13	2.46	5.00	4.01	0.70	-0.35	-0.90
R	9	1.89	5.00	3.64	0.79	0.19	-0.74
M	9	1.00	5.00	2.64	0.85	0.25	-0.02
A/A	14	1.00	5.00	3.13	0.65	-0.05	0.78
EM	5	1.00	5.00	3.97	0.82	-0.72	0.58

*Scale Reliability*

Each scale was examined for its level of internal consistency using Cronbach's Alpha. Initially, the complete fifty item set was evaluated for internal consistency. The resulting unstandardized alpha coefficient was .87. This was slightly higher than the pretest which had an unstandardized alpha coefficient of .84. Each scale was then evaluated individually as shown in Table 10. The alpha values ranged from .76 to .88 with the EM scale having the lowest internal consistency and the D/D scale having the highest.

Table 10

*Comparison of current and previous published measures of internal consistency  
N=151*

Scale	Items	Pretest Alpha	Posttest Alpha	Published Alpha	Difference
D/D	13	.84	.88	.85	.03
R	9	.81	.84	.80	.04
M	9	.77	.84	.83	.01
A/A	14	.81	.81	.84	-.03
EM	5	.78	.76	.80	-.04

As mentioned earlier, the resulting unstandardized alpha coefficient for the full fifty item set was .87. When evaluating the alpha-if-item-deleted measure for the full fifty items set, removal of only three items would have had a positive impact on the internal consistency of the full measure. Removal of any of the three items (Item 3, Item 7 or Item 11) would improve the alpha for the full scale, but only by a marginal amount (.87). Removing all three items might have a slightly higher cumulative impact on increasing the internal reliability.

The items for the individual scales were then analyzed for internal consistency. The unstandardized alpha for the D/D scale was .880, which was the highest of the five scales. Item 1 had the lowest of the thirteen item-to-subscale correlations (.37). However, removal of any of the thirteen items would not result in a lower level of internal consistency.

The unstandardized alpha for the R scale was .840, which was the second highest of the five scales. Item 29 had the lowest of the nine item-to-subscale correlations (.36), but once again removal of this item would only improve the scale internal consistency by a very marginal amount (.842).

The third scale, the M scale, had an unstandardized alpha that was very close to the R scale (.842). Item 8 had the lowest of the nine item-to-subscale correlations (.38). Removal of this item would improve the scale internal consistency (.843), but only by a very marginal amount.

The A/A scale had the second lowest unstandardized alpha of the five scales (.812). This scale had two items that could impact the scale's internal consistency. Removal of Item 3 or Item 14 would improve the alpha by .02 or .05, respectively. Once again these adjustments would be very marginal.

The unstandardized alpha for the EM scale was .76, which was the lowest of the five scales. Item 2 had the lowest of the five item-to-subscale correlations (.49). However, removal of any of the five items would not result in a lower level of internal consistency. After reviewing the internal consistency of the five scales and the other all assessment, an analysis of the underlying factor structure was conducted.

#### *Confirmatory Factor Analysis*

A five-factor confirmatory factor analysis was run on for the fifty items from the Intercultural Development Inventory using SAS version 9.1. The sample contained 151 cases. A maximum likelihood estimation model was used with a covariance matrix. The descriptive statistics of the variables can be seen earlier in this document. It took eighty iterations for the final solution to be established.

#### *Model Fit Indices*

The chi-square for the confirmatory factor analysis was 1870.6 with 1,165 degrees of freedom as shown in Table 11. The chi-square model is generally considered a measure of poor fit and lower numbers represent better model data fit. The chi-square was statistically significant indicating poor model fit. The Root Mean Square Residual (RMR) was 0.128 with larger numbers indicating poorer fit. The Comparative Fit Index (CFI) for the model was 0.73 where a value of 1 is the highest achievable value and the RMSEA value was 0.064. The 90% confidence interval for RMSEA was from 0.058 to 0.069. This indicates model data fit at just below an acceptable level of model-data fit. This suggests that there may be another better fitting model than the five factor model proposed by the authors.

The results for the five-factor model were not as positive as the original results presented by the authors of the instrument. The author's published results include two items that were on

the original instrument and were later removed after a final review for item clarity. Table 11 displays the published CFA results of the instrument as well as the results of a one-factor model that was conducted.

Table 11  
*Model Fit Indices*

Model	$\chi^2$	$\chi^2$ df	$\chi^2$ p	$\chi^2$ /df	RMR	RMSEA	RMSEA Lower 90% CI	RMSEA Upper 90% CI
One Factor	2965.6	1175	<.0001	2.52	0.197	0.101	0.096	0.105
Five Factor	1870.6	1165	<.0001	1.61	0.128	0.064	0.058	0.069
Five Factor (published)	2973.3	1810	---	1.63	0.07	0.03	---	---

### *Conclusions*

According to the American Council on Education: “global perspectives are critical to solving contemporary problems, ensuring academic excellence, and preparing a world-class workforce” (www.acenet.edu). Being culturally sensitive certainly plays an important role in students’ development of a true global perspective. The DMIS is an intriguing framework to describe one’s progression from a ethnocentric to ethnorelative orientation of cultural sensitivity. This research first investigated the impact of a curriculum specifically designed to increase students’ cultural sensitivity as defined by the DMIS. The IDI was used to measure this growth. While the results of this study suggested that this curriculum did impact some of the students’ developmental scores on the IDI, evidence related to the validity of the IDI scores is needed. Based on the additional analyses of the psychometric properties of the IDI based on these data, more research needs to be conducted on this instrument and within this research area.

## References

- American Council on Education(*n.d*). *Center for International Initiatives*. Retrieved January 31, 2007 from <http://www.acenet.edu/Content/NavigationMenu/ProgramsServices/International/index1.htm>
- Bennett, M.J. (1986). A developmental approach to training for intercultural sensitivity. *International Journal of Intercultural Relations* 10(2), 179-95.
- Bennett, M.J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In M. Paige (Ed.), *Education for the intercultural experience*. Yarmouth, ME: Intercultural Press.
- Bennett, J.M. & Bennett, M. J. (2004). *Developing intercultural competence: A reader*. Portland, OR: The Intercultural Communication Institute
- Hammer, Bennett, and Wiseman (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, 27, p 424.