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The Relationship between Temperament and Changes in Cultural Competency among Undergraduate Students

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The Relationship between Temperament and Changes in Cultural Competency among Undergraduate Students

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Faculty Mentor: Dr. Elizabeth Sandell (Elementary Education)
Undergraduate Research Symposium
Minnesota State University, Mankato (MN)
April 20, 2014

Big ideas. Real-world thinking.

Research Questions

1. What changes occur in cultural competence of undergraduates as a result of the human relations course?
2. Does temperament affect the change in cultural competence of undergraduates?

Definitions of Key Terms

- **Temperament (Keirse,1998) may be considered to include a set of observable personality traits, e.g., communication habits, behavior patterns, values, attitudes and talents, etc.**
- **Culture is “the customary beliefs, social forms, material traits of a racial, religious, or social group; also, the characteristic features of everyday existence shared by people in a place or time” Merriam-Webster (2012).**
- **Cultural Competency is "the capability to accurately understand and adapt behavior to cultural differences and commonality" (Hammer and Bennett, 2010).**

MSU Diversity Requirement

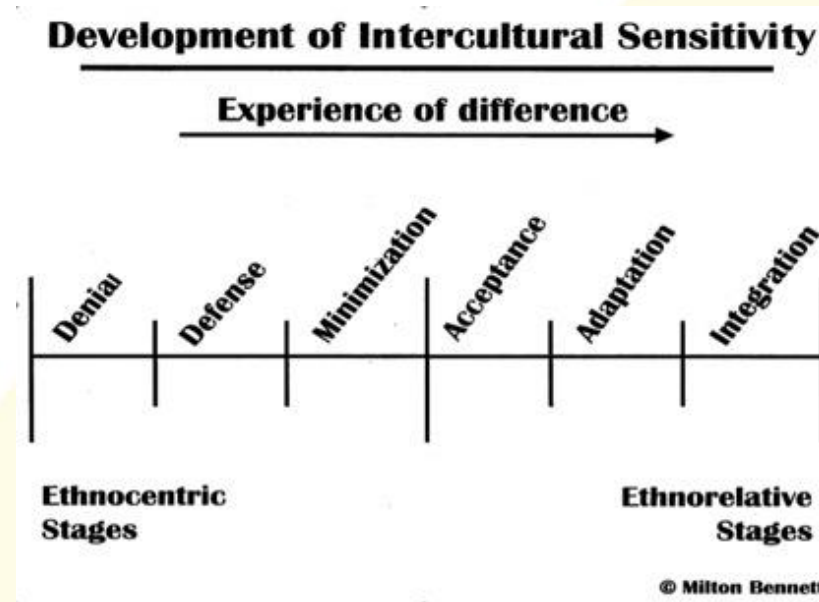
- **Education:** “To prepare principled professional practitioners who thrive and succeed in diverse environments, promote collaborative and generative communities, and engage in life-long learning.”
- **MSU Purple courses:** “To increase students’ understanding of individual and group differences, emphasizing the dynamics of race, gender, sexual orientation, age, class, and/or disabilities.”

Developmental Model of Intercultural Sensitivity

- **Milton Bennett**
- **The first three stages are defined as avoiding cultural differences**
- **The last three stages are defined as seeking cultural differences**



Developmental Model of Intercultural Sensitivity



Developmental Model of Intercultural Sensitivity (Hammer et. al., 2003)

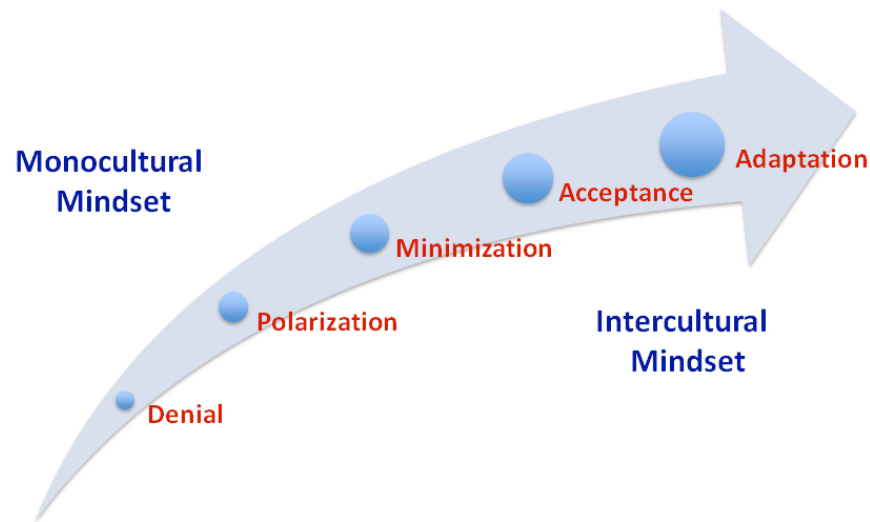
Intercultural Development Inventory

- **Mitchell R. Hammer, PhD**
- **Originated from the DMIS**
- **Designed to measure individual/group intercultural sensitivity**



Intercultural Development Inventory

Intercultural Development Continuum



Results from Previous Research

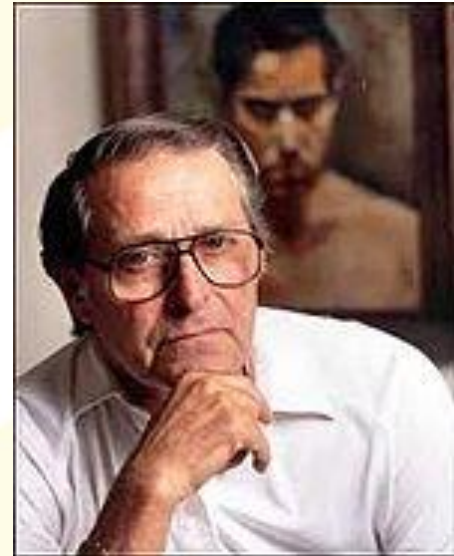
- 1. Undergraduate students arrive at the class with polarization orientation or ethno-centric minimization orientation to cultural differences and similarities (McNabb & Tupy, 2011).**
- 2. With traditional knowledge-based assignments, students showed no statistically significant differences in cultural orientation during the semester (McNabb & Tupy, 2011).**
- 3. There were no statistically significant differences according to their gender, age, academic major, or academic classification (Tupy, McNabb, & Leidell, 2012).**
- 4. There were no statistically significant differences among students in classes taught by five different instructors (Sandell, 2014).**

Previous Results with Significant Differences

1. With intentional assignment to service learning with a culture different than theirs, students showed statistically significant differences between IDI scores at the end of the semester when compared to the beginning of the semester (Tupy, McNabb & Leidell, 2012).
2. With interactive, experiential assignments (such as a cultural partnership with reflection), students showed statistically significant differences between IDI scores at the end of the semester when compared to the beginning of the semester (Sandell & Tupy, 2012).

Keirsey Temperament Sorter II

- **Dr. David Keirsey**
- **Originated from Carl Jung's theory of psychological types**
- **Designed to measure temperament on four scales**
 - A) introvert – extrovert**
 - B) intuitive – sensory**
 - C) feeling – thinking**
 - D) judging – perceiving**



Methodology

- 86 persons, 18 to 30 years old, who were enrolled in EEC 222w (Human Relations in a Multicultural Society) during the Fall semester, 2013.
- The Intercultural Development Inventory (IDI) (Hammer & Bennett, 1998, 2001)
- The Keirsey Temperament Sorter II (KTS-II) (Keirsey, 1998).
- The assessments on-line at the beginning and conclusion of the Fall 2013 semester.

Subjects

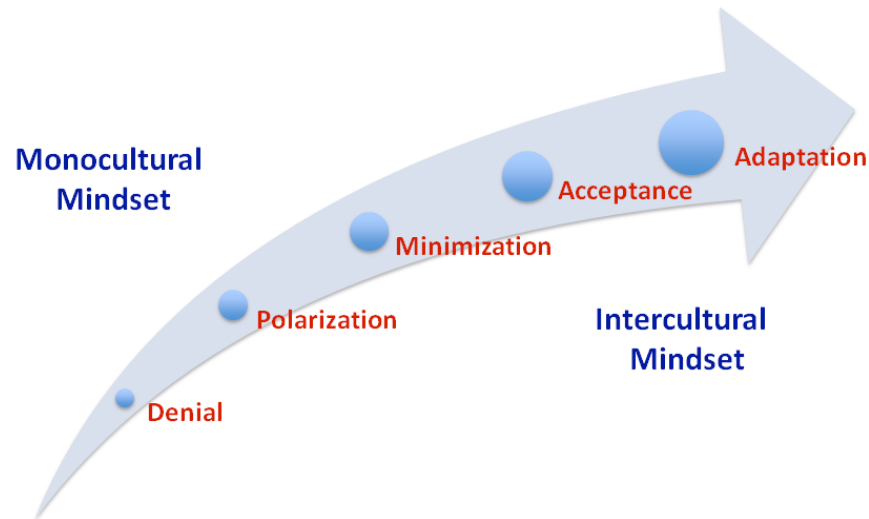
- Total 86
- Male 28
- Female 58
- 18 - 29 years old 79
- 30+ years old 7
- Freshmen 18
- Sophomores 39
- Juniors 21
- Seniors 8
- Education majors 57
- Non-education majors 29

Research Question #1

- **What changes occur in cultural competence of undergraduates as a result of the human relations course?**

Intercultural Development Inventory

Intercultural Development Continuum



Change in Cultural Competence in one semester

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Perceived Orientation – All	PO_pre - PO_post	-2.03169	4.99197	.41892	-2.85986	-1.20352	-4.850	141	.000
Developmental Orientation – All	DO_pre - DO_post	-3.48831	12.39778	1.04040	-5.54511	-1.43151	-3.353	141	.001

Research Question #2

- **Does temperament affect the change in cultural competence of undergraduates?**

Influence of temperament on change in cultural competence

	Type III Sum of Squares	df	Mean Square	F	Sig.
Pre_Post * Introversion/ Extroversion on Perceived Orientation	21.313	1	21.313	1.728	.191
Pre_Post * Introversion/ Extroversion on Developmental Orientation	135.798	1	135.798	1.782	.184
Pre_Post * Intuitive / Sensing on Perceived Orientation	14.155	1	14.155	1.142	.287
Pre_Post * Intuitive / Sensing on Developmental Orientation	14.179	1	14.179	.184	.669
Pre_Post * Feeling / Thinking on Perceived Orientation	10.950	1	10.950	.882	.349
Pre_Post * Feeling / Thinking on Developmental Orientation	78.262	1	78.262	1.021	.314
Pre_Post * Judging / Perceiving on Perceived Orientation	40.789	1	40.789	3.334	.070
Pre_Post * Judging / Perceiving on Developmental Orientation	177.238	1	177.238	2.330	.129

Conclusions

1. **Statistically significant changes occurred in cultural competence of undergraduates as a result of the human relations course.**
2. **Temperament does not affect the changes in cultural competence of undergraduates.**

Future research

- **How does the cultural partnership assignment affect cultural competency?**
- **How does the service learning assignment affect cultural competency?**

Acknowledgements

- **Dr. Elizabeth Sandell, research mentor**
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- **MSU College of Education**
- **Undergraduate Research Center at MSU**
- **Undergraduate Research Symposium, Mankato, Minnesota**
- **MSU Center for Excellence in Scholarship and Research**

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Questions?

