

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

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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

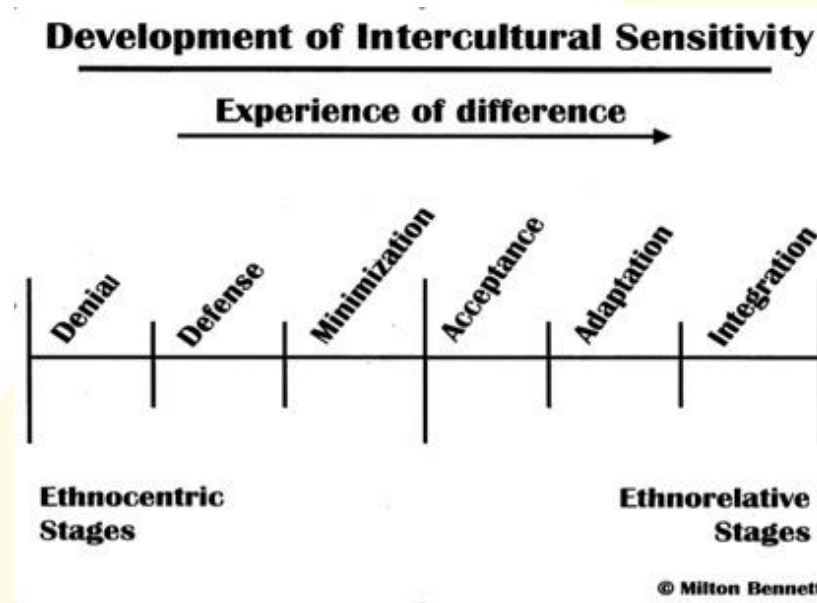
- **Education:** “To prepare principled professional practitioners who thrive and succeed in diverse environments, promote collaborative and generative communities, and engage in life-long learning.”
- **MSU Purple courses:** “To increase students’ understanding of individual and group differences, emphasizing 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)*

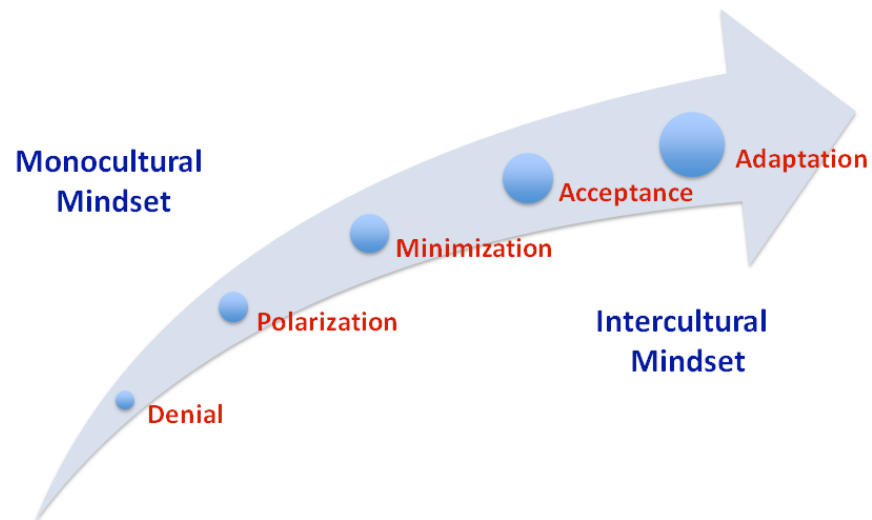
# Intercultural Development Inventory

- **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

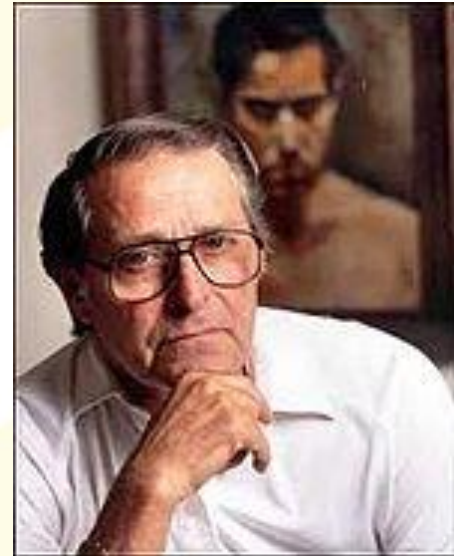
- 1. Undergraduate students arrive at the class with polarization orientation or ethno-centric minimization orientation to cultural differences and similarities (McNabb & Tupy, 2011).**
- 2. With traditional knowledge-based assignments, students showed no statistically significant differences in cultural 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

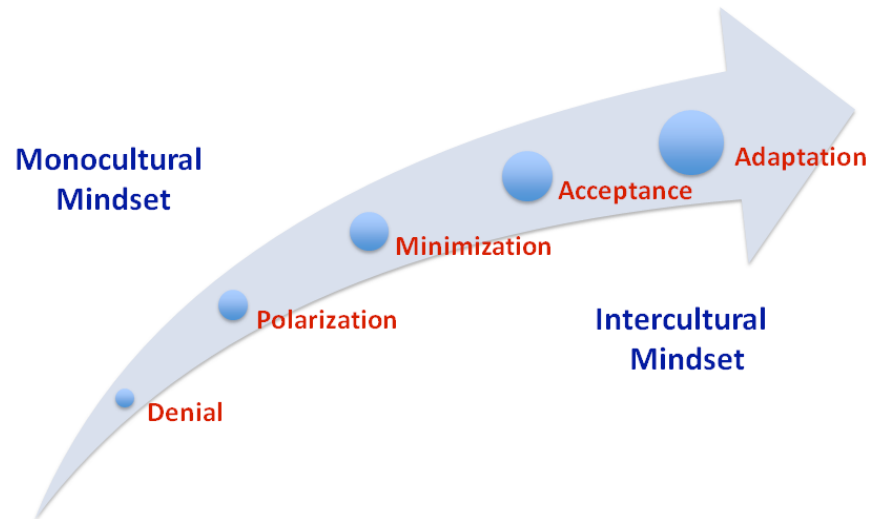
- Total 86
- Male 28
- Female 58
- Freshmen 18
- Sophomores 39
- Juniors 21
- Seniors 8
- 18 - 29 years old 79
- 30+ years old 7
- Education majors 57
- Non-education majors 29

# 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

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- **Undergraduate Research Symposium, Mankato, Minnesota**
- **MSU Center for Excellence in Scholarship and Research**

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# Questions?

