

# Using the BEVI to Assess Individual Experience to Enhance International Programming

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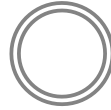
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<sup>1</sup>Department of Animal Sciences

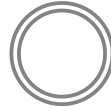
<sup>2</sup>Center for Intercultural Learning, Mentorship, Assessment, and Research

# Global Agriculture



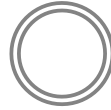
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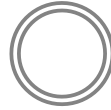
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    - ✦ Less direct involvement in production<sup>2</sup>

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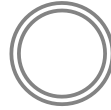


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    - ✦ Less direct involvement in production<sup>2</sup>
  - Challenges<sup>3</sup>
    - ✦ Food security
    - ✦ Environment

<sup>1</sup>Roser and Ortiz-Ospina, 2018 <sup>2</sup>Dimitri et al., 2005; National Research Council (U.S.), 2009

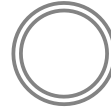
<sup>3</sup>Amundson et. al., 2015 <sup>4</sup>Goecker et al., 2015; Leer, 2012; Bobeck et al., 2014

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    - ✦ Food security
    - ✦ Environment
  - Employment Variation
    - ✦ Off the farm agricultural jobs<sup>4</sup>

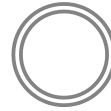
# What is culture?



Culture encompasses the set of attitudes, beliefs, and practices that a group of people identify with.



# Why is understanding culture important?

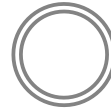


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# Why is understanding culture important?



- Agriculture is global
- Challenges requiring multicultural collaboration
  - “Feed the world by 2050”<sup>1</sup>

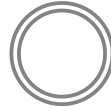


# Why is understanding culture important?

- Agriculture is global
- Challenges requiring multicultural collaboration
  - “Feed the world by 2050”<sup>1</sup>
- Increased diversity in our communities & classrooms<sup>2</sup>



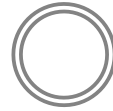
# Connecting Global Agriculture and Culture



- Intercultural Competence (IC) Skills
  - Ability to communicate with audiences of all backgrounds
  - Ability to collaborate cross-culturally



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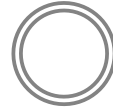
- Intercultural Competence (IC) Skills
  - Ability to communicate with audiences of all backgrounds
  - Ability to collaborate cross-culturally
- How can we develop IC?
  - Intercultural learning activities
    - ✦ Study abroad
      - A popular activity chosen as an avenue for connecting disciplines globally





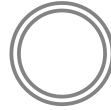


# Programming and Assessment



- Curriculum changes to meet SA claims<sup>1</sup>
  - Intercultural learning activities
- Assessment<sup>1</sup>
  - Group IC development
- Aggregate vs. Individual<sup>2</sup>
  - Understanding participant makeup
  - Facilitating meaningful discussion

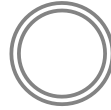
# Gap in Literature



- What are important factors in developing students through study abroad programming?<sup>1</sup>
- Do we understand our participants?<sup>2</sup>
- Beliefs and values (personal identity) influences our experience and development of IC

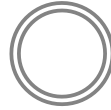


# What we know?



- **Common Assessment Tools<sup>1</sup>**
  - Intercultural Development Inventory (IDI)
  - Beliefs Events and Values Inventory (BEVI)

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- **Common Assessment Tools<sup>1</sup>**

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- **BEVI<sup>2,3</sup>**

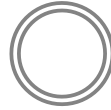
- Provides information on the values and beliefs held by students:
  - ✦ Who are attracted to STEM vs. Liberal Educational Institutions
  - ✦ PWI vs. Minority Serving
  - ✦ Within different academic disciplines
- Spread within a course



**EMBEDDED SA  
PROGRAM:**

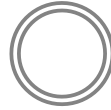
**Food Security and  
Environmental  
Challenges in Vietnam**

# Purpose and Objectives



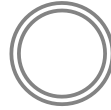
- To explore and describe student changes on the Beliefs Events and Values Inventory (BEVI).

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  - What were students' BEVI scale scores before and after participation in a short-term study abroad program to Vietnam?

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- To explore and describe student changes on the Beliefs Events and Values Inventory (BEVI).
  - What were students' BEVI scale scores before and after participation in a short-term study abroad program to Vietnam?
    - ✦ Scale scores related to course learning outcomes will increase.

# Materials and Methods

- IRB Approved
- 11 Undergraduate Student participants
- 5 Extension Educators
- 1x/week, 50-min lectures
- Embedded short-term study abroad
- Single group pre-test/post-test design
- BEVI administered wk 1 (T1) and wk 15 (T2)

Week 1

Vietnam

Week 16

Intercultural Learning Activities

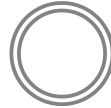
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Activity	Activity Focus
Name Game	Self-Awareness
Who am I?	Self-Awareness
IDI Debrief	Self-Awareness
Alpha/Beta Simulation	Awareness of Others
Reflections	Self-Awareness/Awareness of Others
Collaborative Video Blogging	Self-Awareness/Awareness of Others

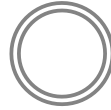


# Student Demographics



<u>Gender</u>	<u>n</u>	<u>%</u>
Male	5	45.45
Female	6	54.55
<u>Degrees Sought</u>		
Animal Sciences	8	72.73
Agronomy	2	18.18
Agricultural and Biological Engineering	1	9.09
<u>Year in School</u>		
Freshman	5	45.45
Sophomore	2	18.18
Junior	3	27.27
Senior	1	9.09

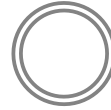
# Equilintegration (EI) Theory



- Beliefs and Values are built over time
  - Starting at birth
  - Develops and strengthens over time
  - Formulated by how needs are met/not met
    - ✦ “take stimulus from the external environment and make meaning from it”
  - Developed strongly by age 16
    - ✦ Transformative learning experience
      - Study Abroad



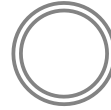
# Theoretical Framework & Instrumentation



- Equilintegration (EI) Theory
- BEVI
  - Mixed methods instrument (demographics, 185 quantitative items, and 3 open-ended questions)



# Theoretical Framework & Instrumentation

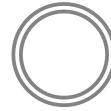


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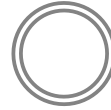


- Equilintegration (EI) Theory
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- Mixed methods instrument (demographics, 185 quantitative items, and 3 open-ended questions)
- Administered online
- Narrative report
  - ✦ Understanding their own and others' beliefs and values
  - ✦ Encourage reflection on the implications of their value and belief systems for learning, relationships, and life experiences

# Theoretical Framework & Instrumentation



- BEVI Output
- Valid and Reliable<sup>1,2</sup>
  - 17 scales
  - 7 Domains



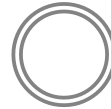
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Formative Variables	Fulfillment of Core Needs	Tolerance of Disequilibrium	Critical Thinking	Self Access	Other Access	Global Access
Background Information	Needs Closure	Basic Openness	Basic Determinism	Physical Resonance	Religious Traditionalism	Ecological Resonance
Negative Life Events	Needs Fulfillment	Self Certitude	Socioemotional Convergence	Emotional Attunement	Gender Traditionalism	Global Resonance
				Meaning Quest	Sociocultural Openness	

# Theoretical Framework & Instrumentation



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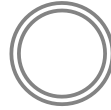


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**3 selected as they relate to course learning outcomes (LO)**

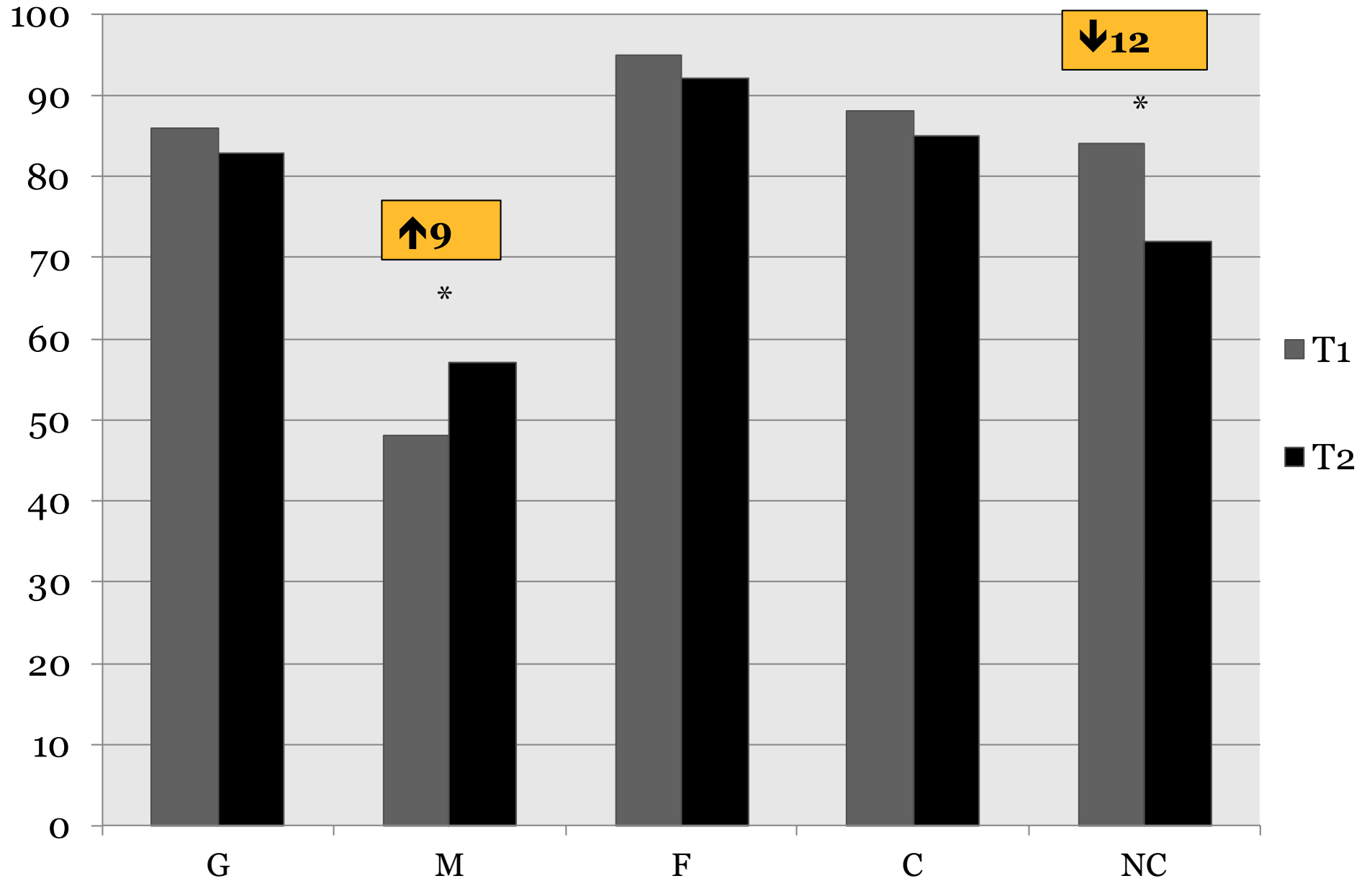


# Analysis

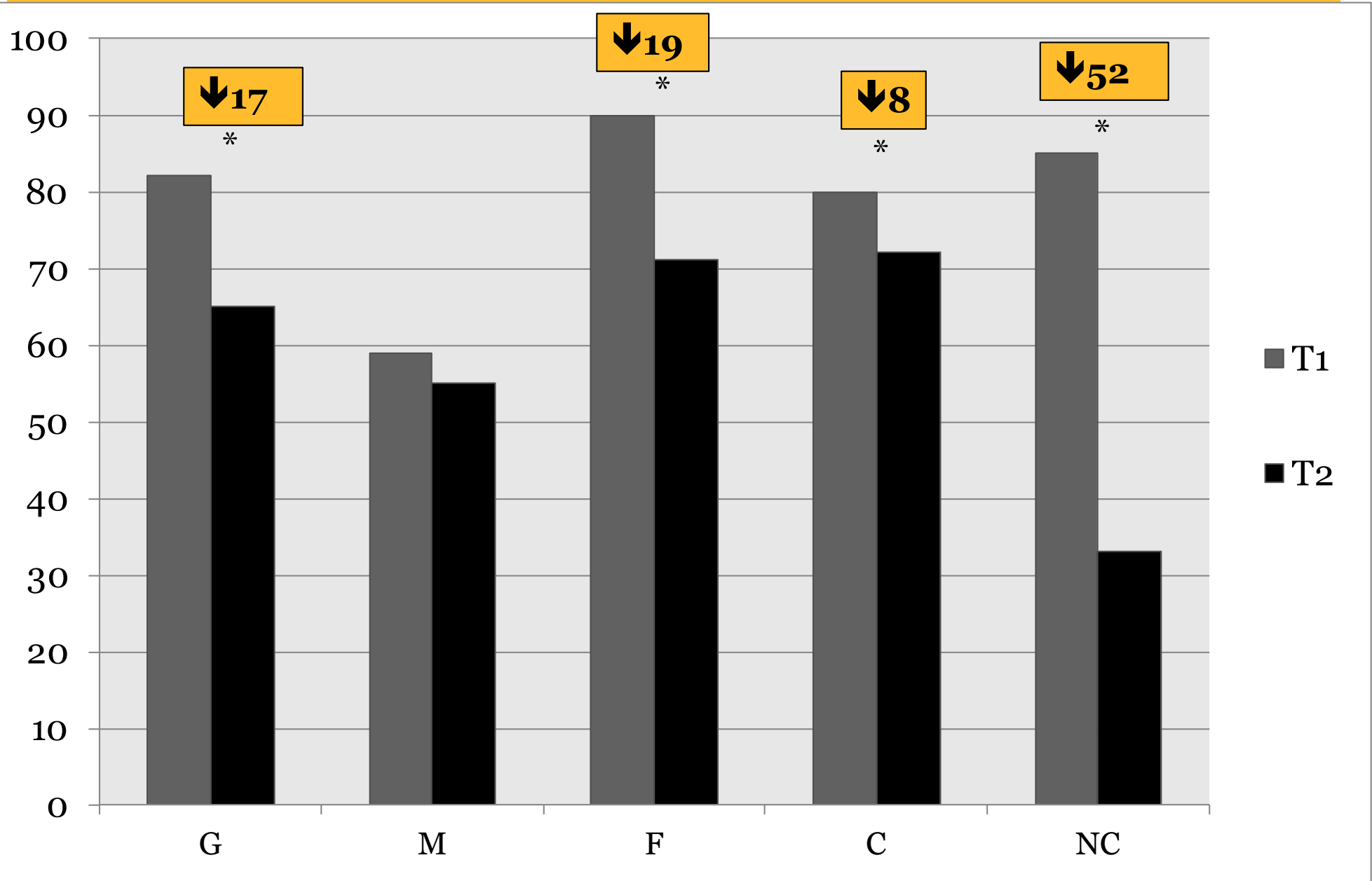


- Group Results (n=10)
- Subgroups
  - Gender
    - ✦ Female (n=6)
    - ✦ Male (n=4)
  - Ethnicity
    - ✦ Caucasian (n= 8)
    - ✦ Noncaucasian (n= 2)
- Meaningful differences at 5 points or higher (which range from 1-100)<sup>1</sup>

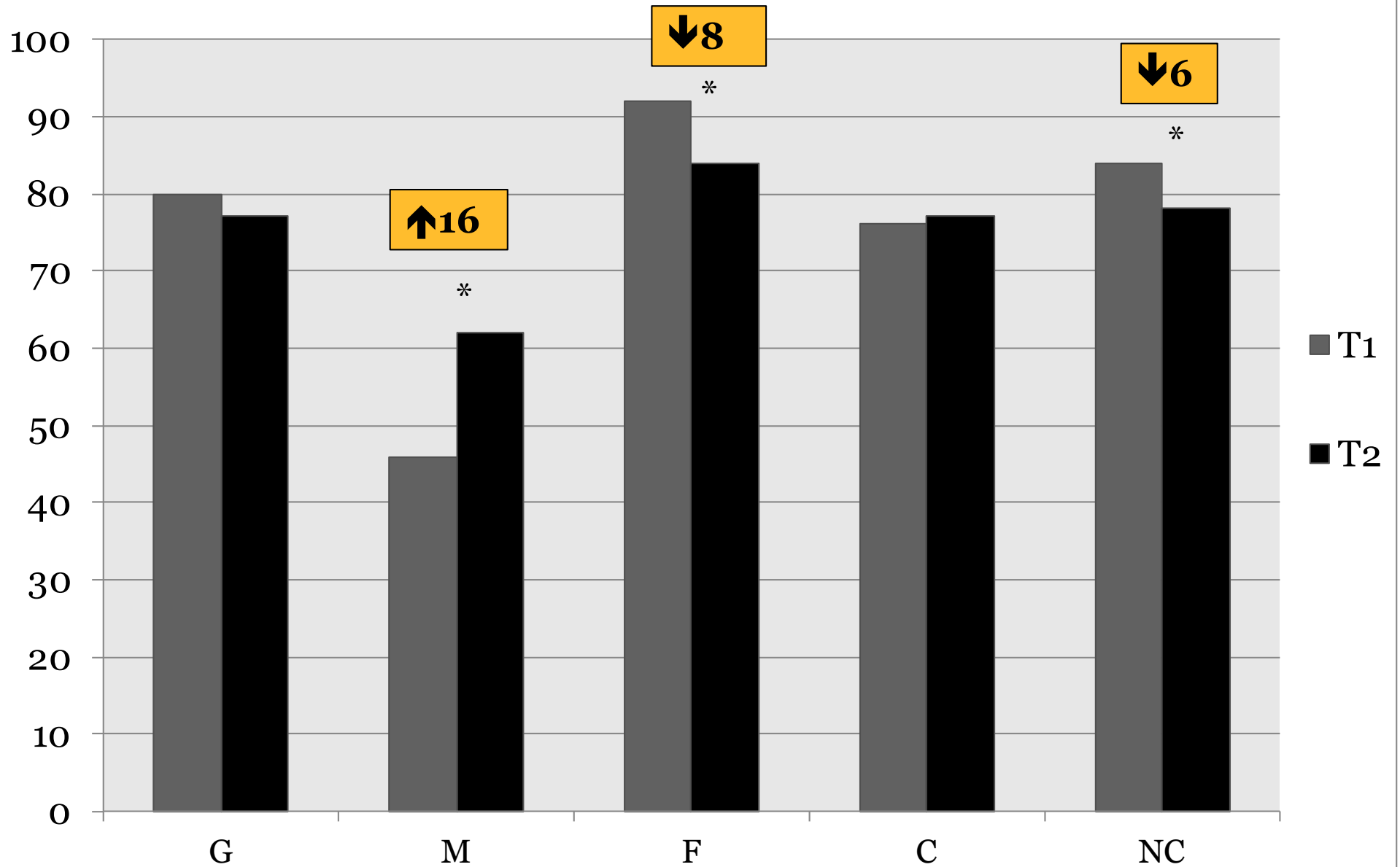
# Sociocultural Openness



# Socioemotional Convergence

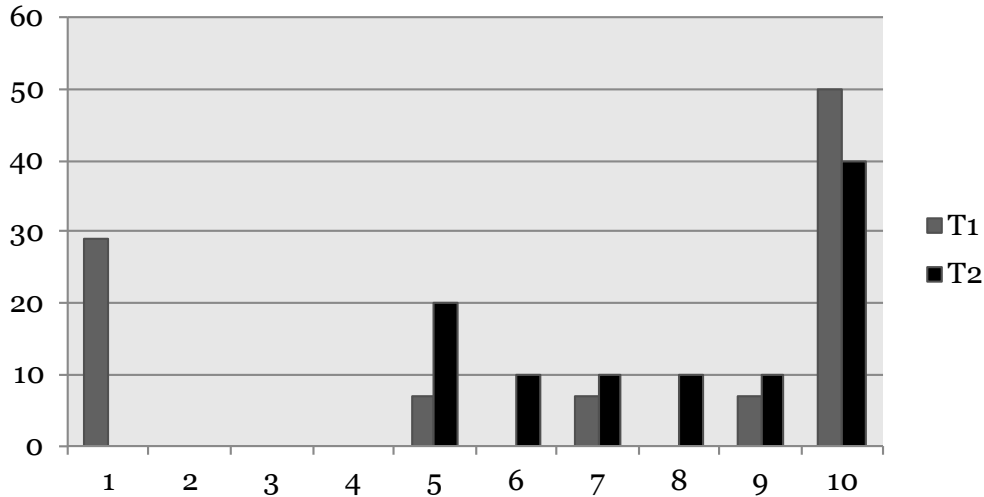


# Ecological Resonance

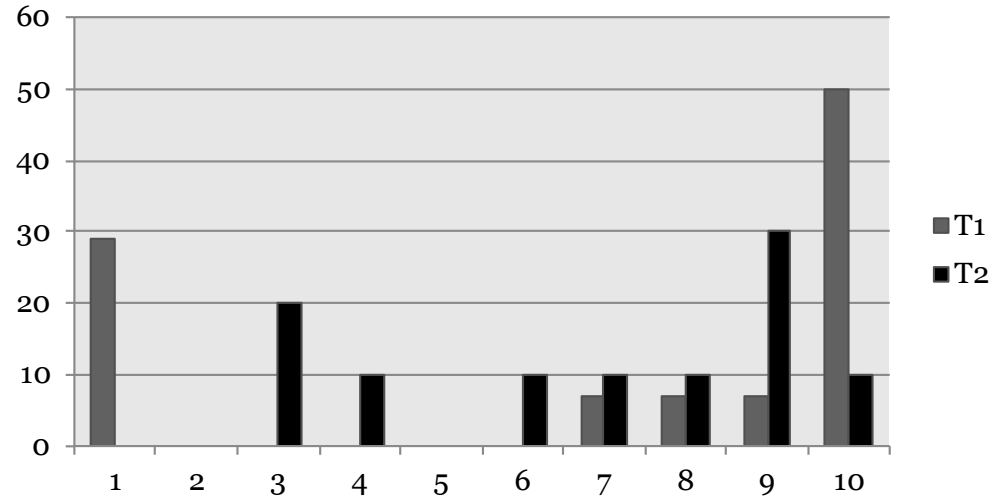


# Results: Decile Report

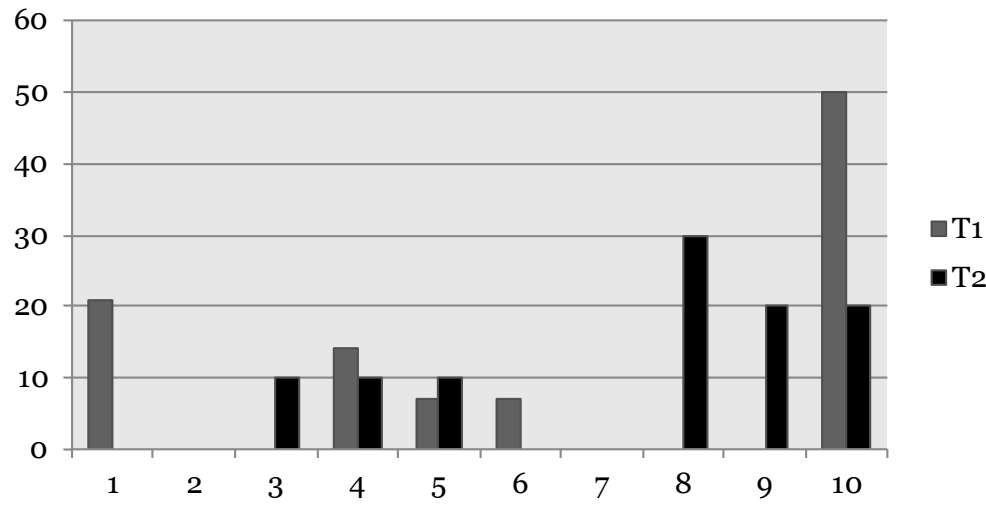
## Sociocultural Openness



## Socioemotional Convergence



## Ecological Resonance

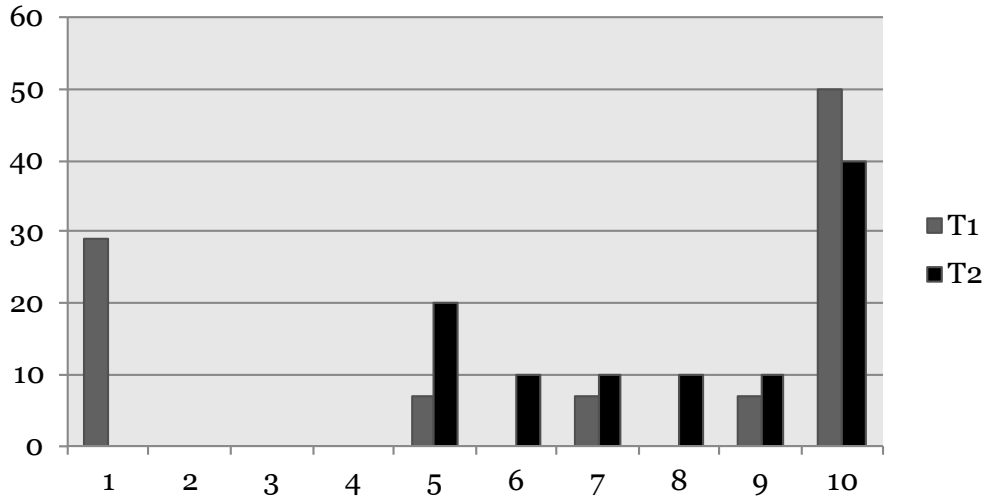


X axis:  
deciles by 10%

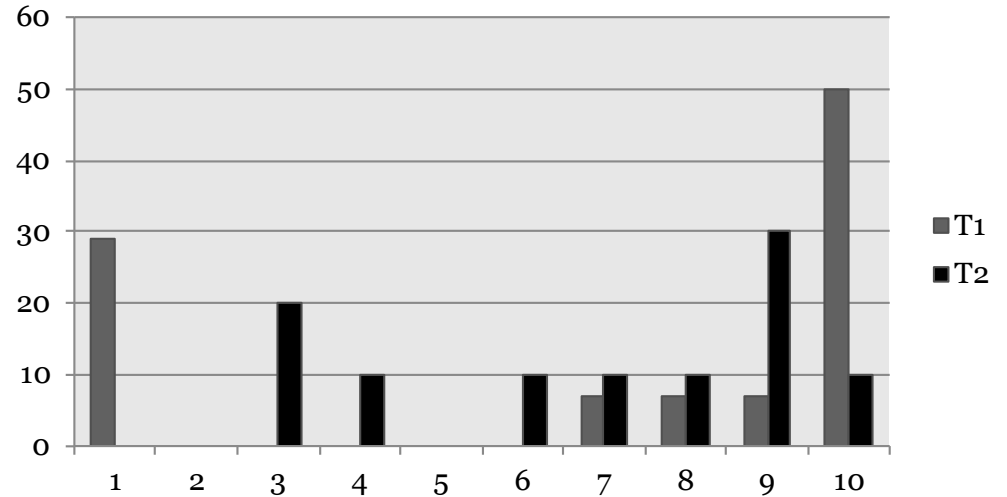
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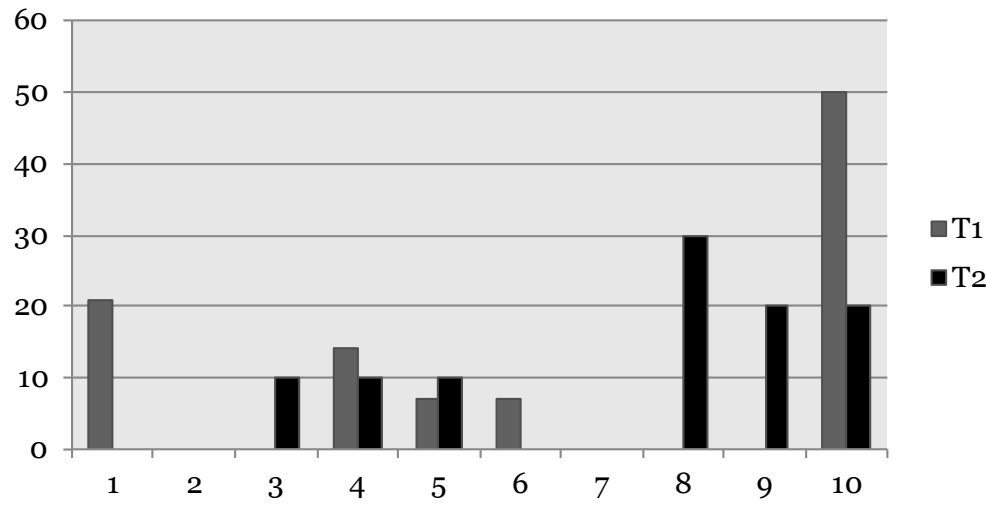
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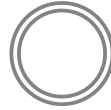


X axis:  
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Y axis:  
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decile

**Students  
furthest  
from  
learning  
outcomes  
progressed.**

# Discussion



- Overall – no increase on scales related to LO
  - Decreased on Socioemotional Convergence
  - Individual changes portray a shift towards middle of scale
- Overwhelming experience<sup>1</sup> (not negative)
- Coping responses to stress expressed as regressions<sup>2</sup>
- Other SA Results
  - Changes in scales at aggregate and individual levels in response to SA<sup>3</sup>

# Discussion

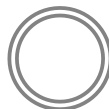


- Developing country provides contrasting perspective
  - Increased cognitive dissonance<sup>1</sup>
- Replace existing portion of value/belief structure – requires breaking barrier<sup>2</sup>
  - Reforming takes time
  - T3 (delayed post test)<sup>3</sup>
    - ✦ Score recovery or surpassing<sup>5</sup>



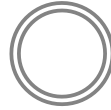


# Conclusions and Limitations



- Different values and beliefs systems
  - Student identities vary
    - ✦ Interpret experiences differently
  - Students do change
    - ✦ Over the course of the semester, we saw student beliefs and values change
- Limited by a small sample/no control
  - Can't assume or generalize that this SA experience caused these changes

# Future Directions



- Continue to collect data from future programs
- Use data to analyze preparedness and inform curriculum design
  - What are the consequences of taking students abroad who are unwilling to interact with differences?
  - What are the group dynamics of the course?
  - When we look at aggregate means, stories don't align with individual data.

**Thank you!**

