



University  
of Idaho



# HOW DO THEY LEARN? THE EXPERIENTIAL LEARNING PREFERENCES OF COLLEGE OF AGRICULTURE STUDENTS

KASEE L. SMITH

RYANNA MEACHAM

# NEED FOR RESEARCH

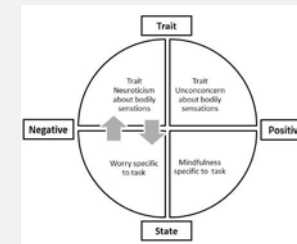
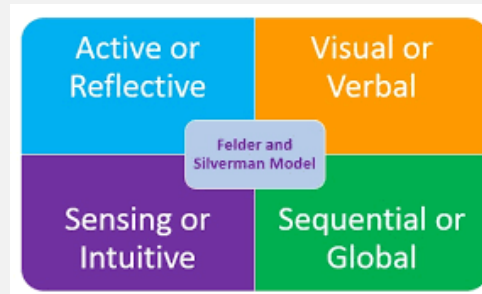
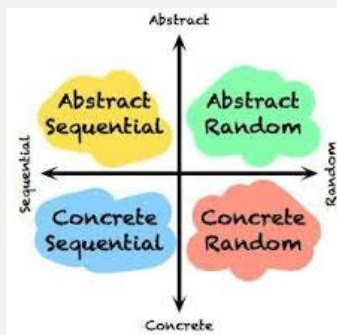
- I Post-secondary students benefit from experiential learning activities in their educational programs (Kuh, ; Kolb, 2016).
- I Every student has different preferences for bringing in and transforming information (Sousa, 2011).



# NEED FOR RESEARCH

## I Learning Styles

- There are many conversations about “learning styles”
- 6 common instruments for assessing learning style  
(Hawk & Shah, 2007)



# NEED FOR RESEARCH

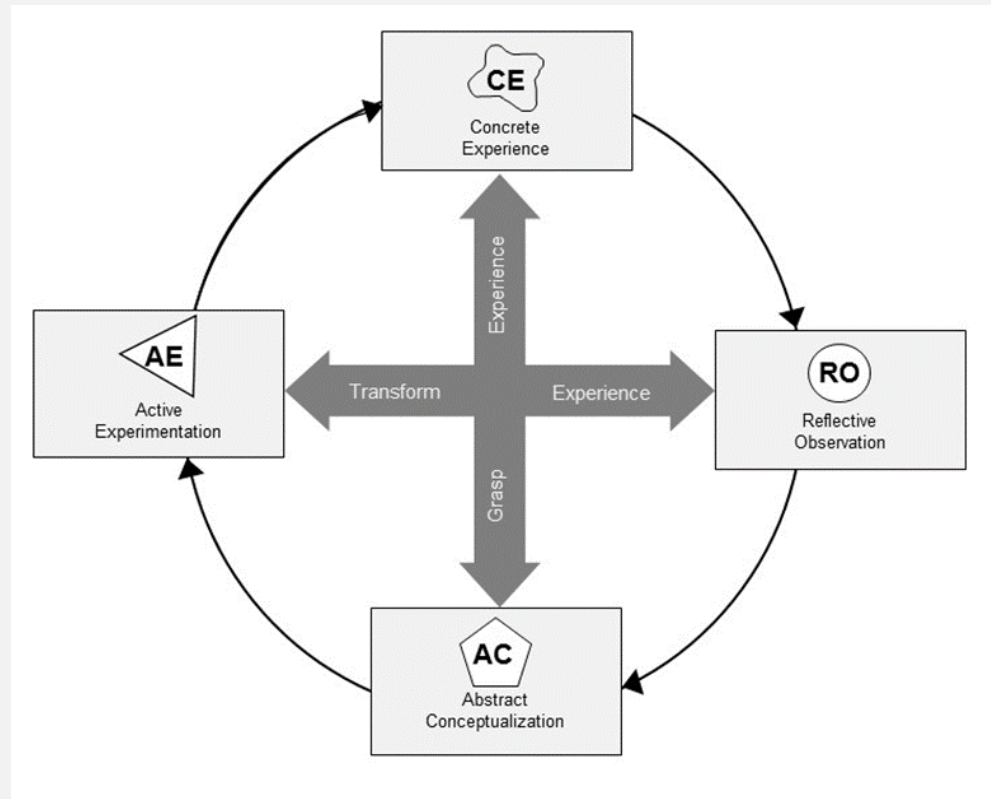
## I Learning **Preference**

- The preferred alignment for bringing in and processing information (*Sousa, 2011*)



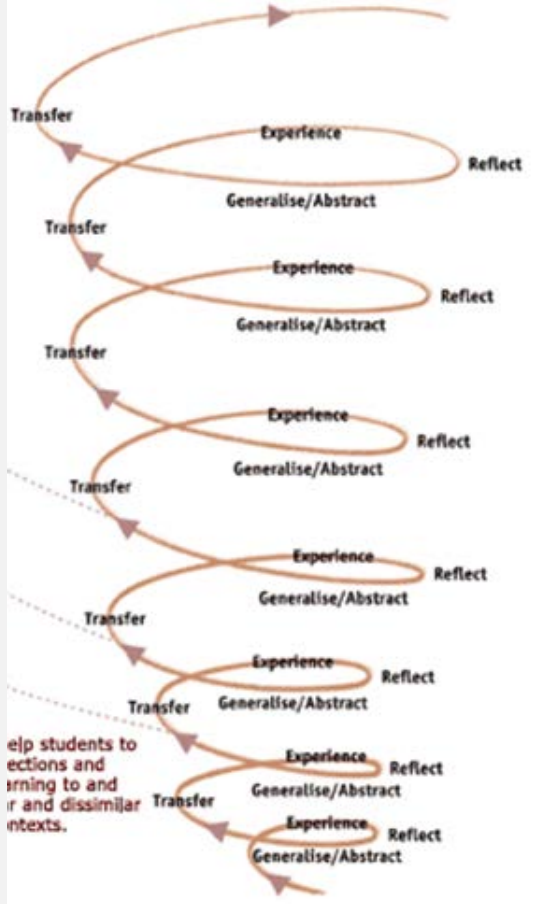
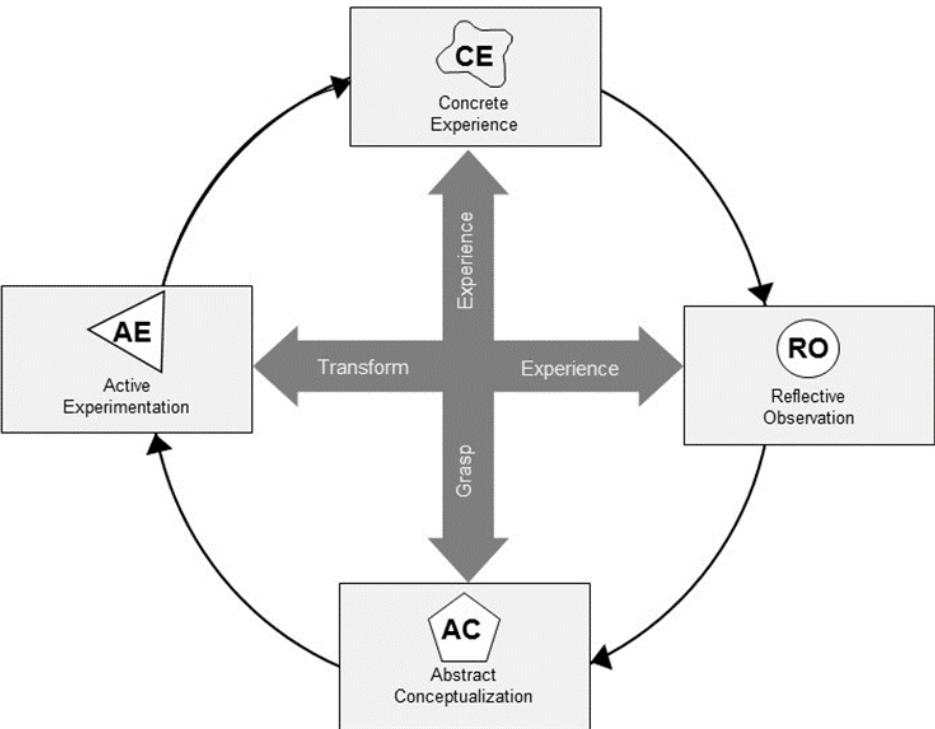
# THEORETICAL FRAMEWORK

I Kolb proposed a method for assessing learning preference in alignment with experiential learning theory (Kolb, 1984, 2016).





# THEORETICAL FRAMEWORK



# PURPOSE



Describe KLSI learning preferences scores for College of Agriculture students



# METHODS

## I Population

- Convenience sample of all students enrolled in a total of 10 agriculture courses at two separate land grant institutions between 2015 & 2018 ( $n = 279$ )
- Students represented 14 different majors & 6 academic departments
- 100% response rate (results limited to this population)





# METHODS

## I Descriptive survey

- Demographic information
- Kolb's Learning Style Inventory
  - 12-items
    - Forced choice items with all four components
  - Previous reliability estimates between  $\alpha = 0.82$  and  $\alpha = 0.86$
  - Post hoc reliability for this sample between  $\alpha = 0.81$  and  $\alpha = 0.92$

# LET'S TRY ONE TOGETHER

- When I learn...
  - A. I get involved
  - B. I like to observe
  - C. I evaluate things
  - D. I like to be active

# KLSI



■ When I learn...

A. I get involved



B. I like to observe



C. I evaluate things



D. I like to be active



**CE**  
Concrete  
Experience

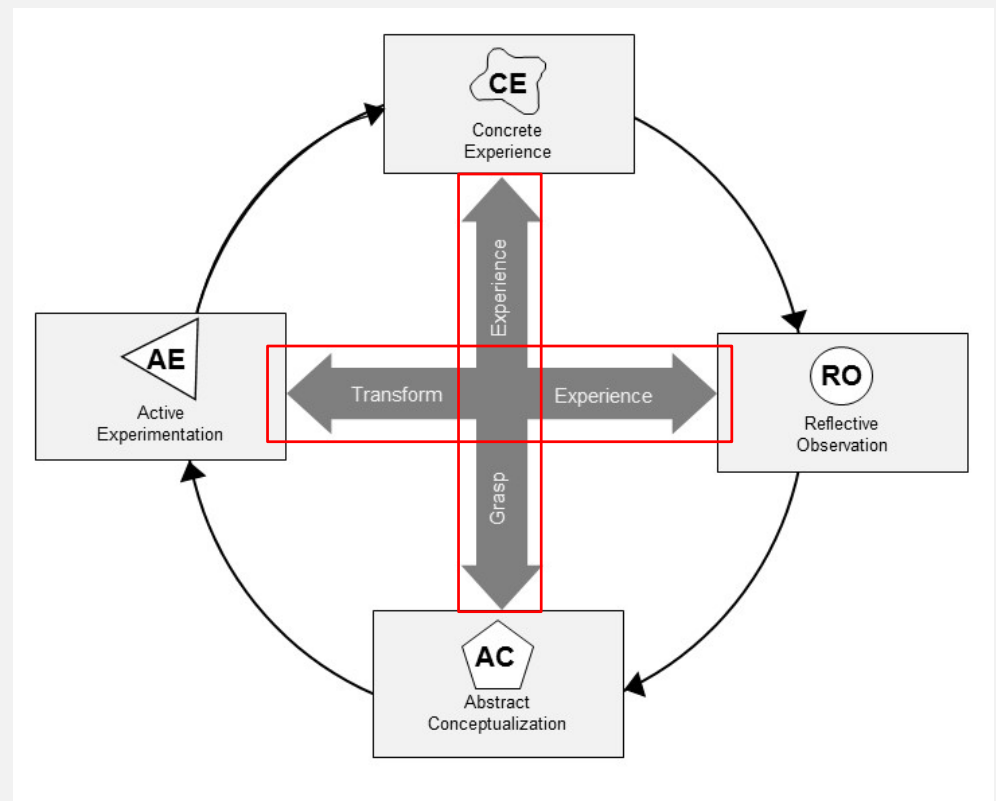
**RO**  
Reflective  
Observation

**AC**  
Abstract  
Conceptualization

**AE**  
Active  
Experimentation

# KLSI

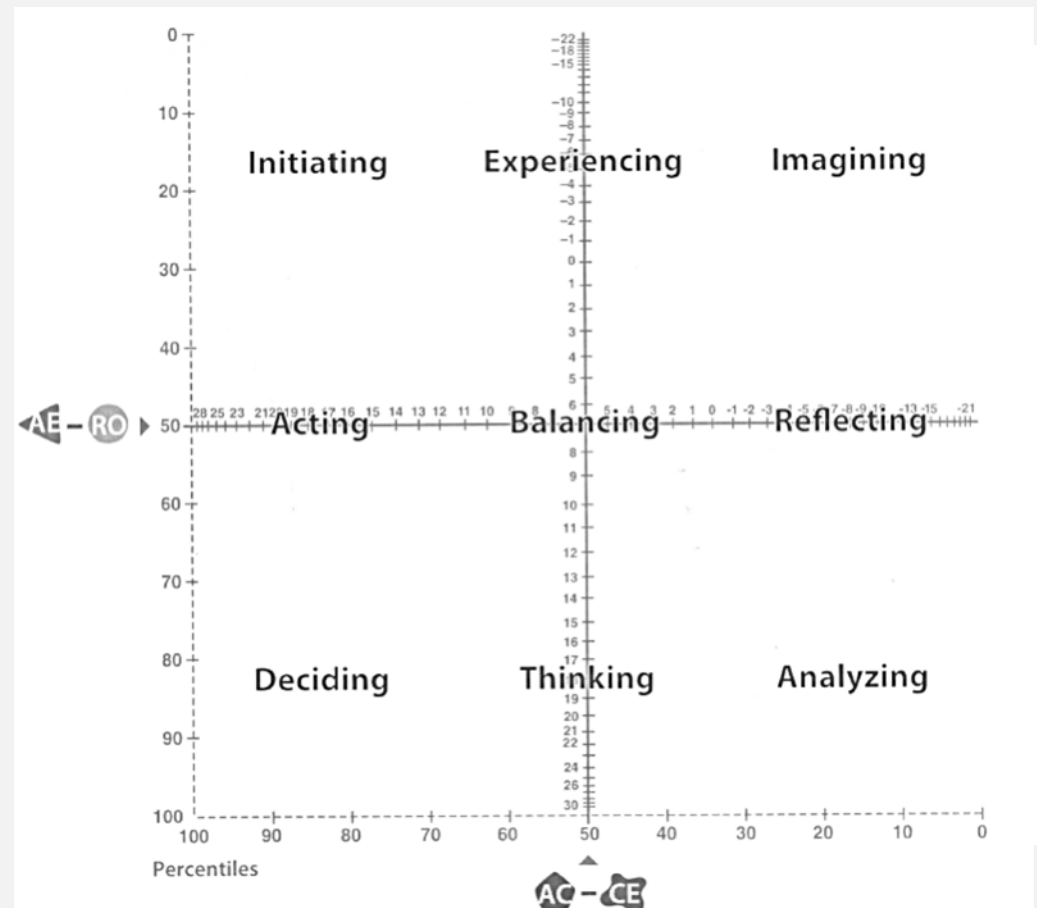
- Scores 12-48 for each component
- Scores  $\pm 36$  for each dimension
  - Grasping
    - Bring in knowledge
    - Through CE or AC
  - Transforming
    - Process knowledge
    - Through AE or RO





# KLSI

- Scores 12-48 for each component
- Scores  $\pm 36$  for each dimension
  - Grasping
    - Bring in knowledge
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# METHODS

## I Distribution

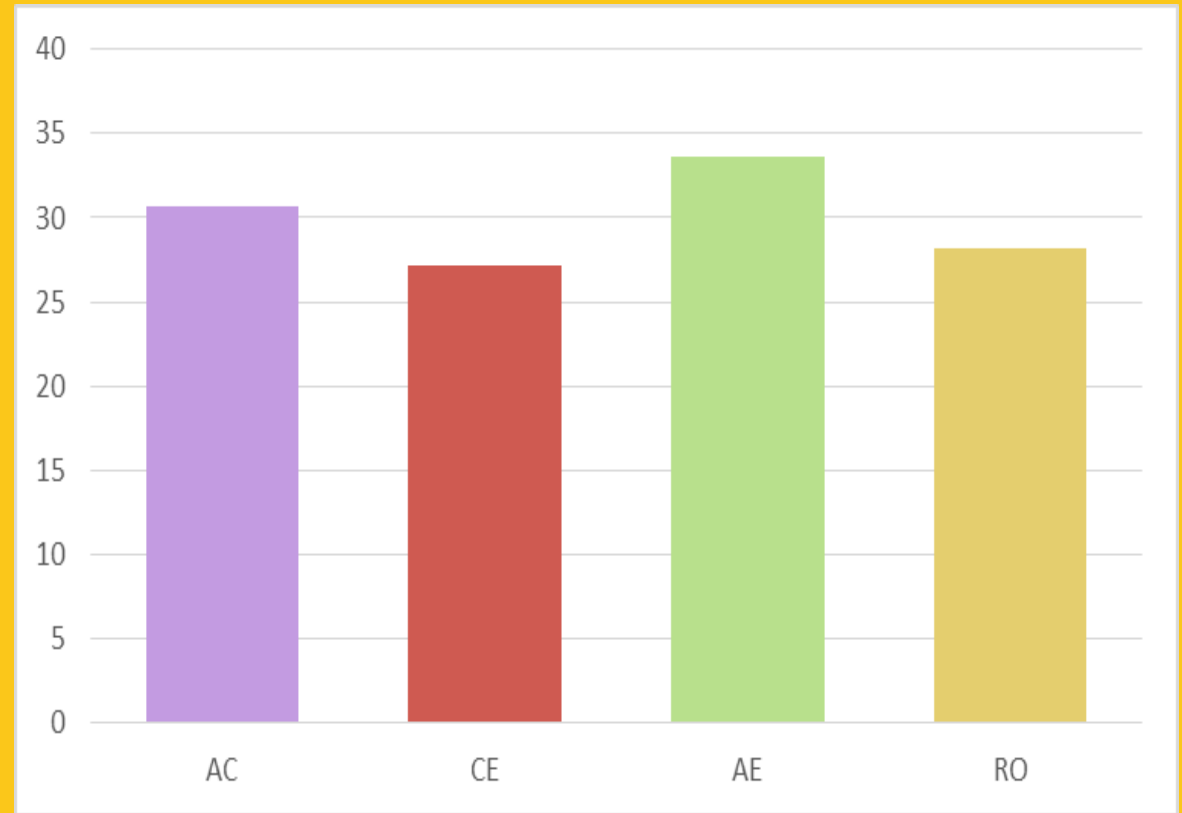
- Paper versions of instrument were distributed to each student enrolled in the selected classes

## I Analysis

- Paper versions were entered into Excel spreadsheet
- Analyzed with SPSS v 23

# FINDINGS

## KLSI AREA SCORES



**Abstract Conceptualization-  $M = 30.7(8.6)$**

**Concrete Experience-  $M = 27.1(7.0)$**

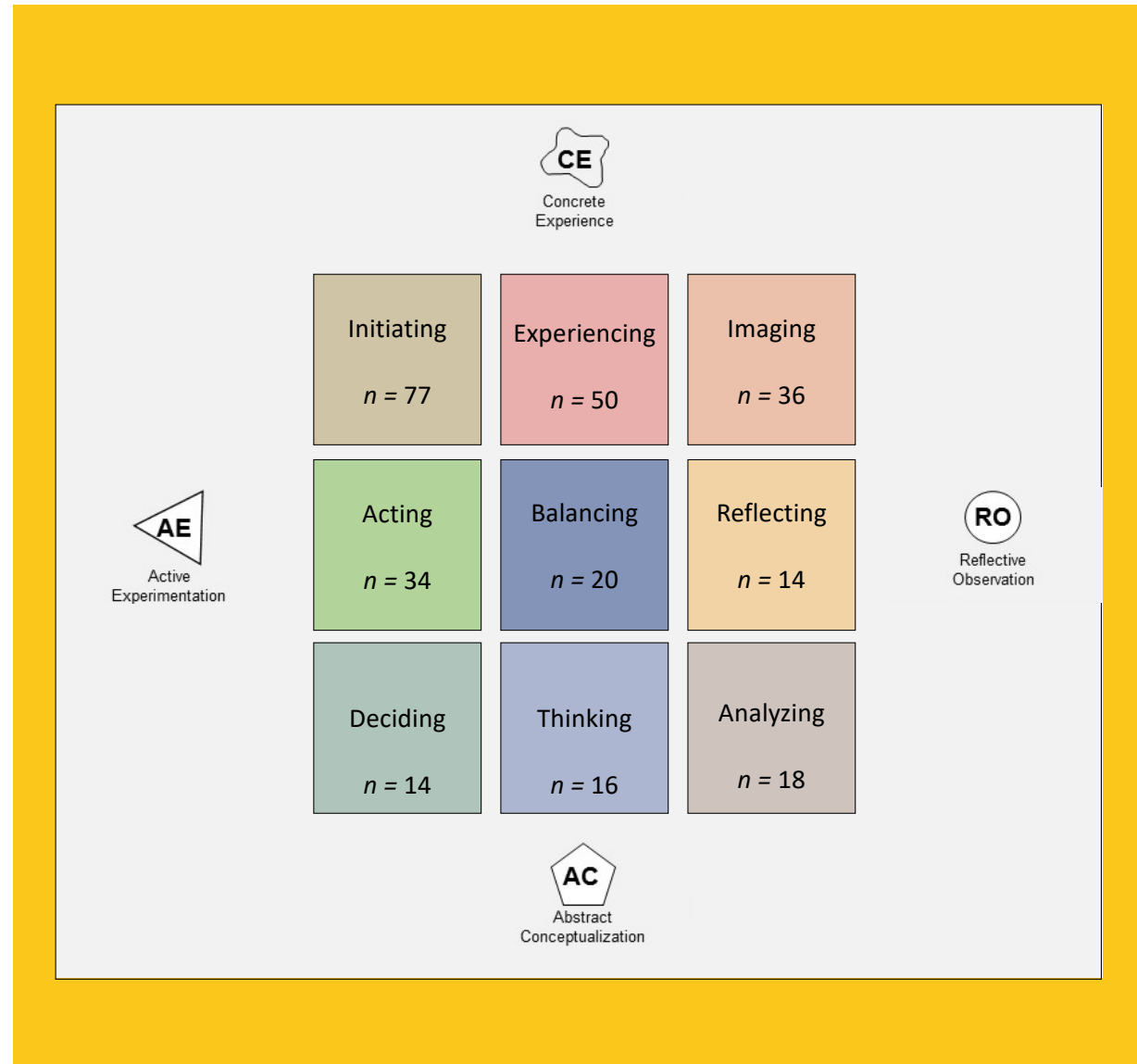
**Active Experimentation-  $M = 33.6(8.3)$**

**Reflective Observation-  $M = 28.2(7.1)$**

# FINDINGS

## STUDENT LEARNING

## STYLES

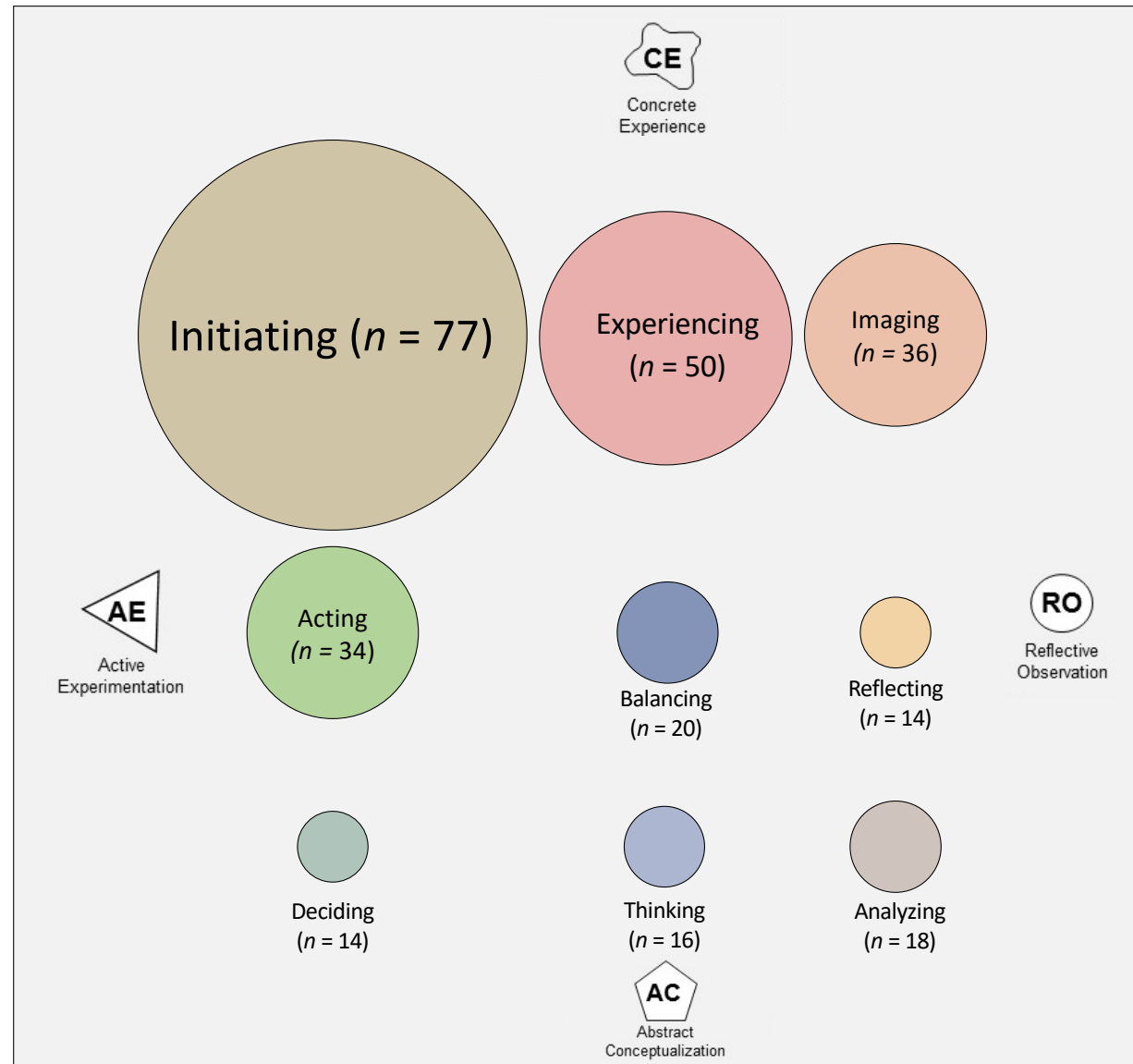




# FINDINGS

## STUDENT LEARNING

## STYLES





# WHAT THIS MEANS FOR INSTRUCTORS

- I Students as a group included all learning preferences
  - Instruction should include all four components of experiential learning theory
  - To think about:
    - Are all four stages of ELT expressed in your current courses?
    - How can we vary instruction to include a focus on ELT?



# WHAT THIS MEANS FOR INSTRUCTORS

**I** More students preferred to bring in information through concrete experience

- This is similar to Kolb's findings for the general population and for younger adults (18-25)
- To think about:
  - How can you increase the amount of instruction that allows for grasping through concrete experience?
  - This is backward from most traditional instruction



# WHAT THIS MEANS FOR INSTRUCTORS

- I More students preferred to transform information through active experimentation
  - Assimilation may be easier when applied to new situations
  - To think about:
    - Is there enough active experimentation in course instruction and assignments to help students assimilate abstract concepts?



# RECOMMENDATIONS

- I Conduct longitudinal examination to track learning preferences over time
- I Compare results with other populations
- I Examine how ELT is currently expressed in College of Agriculture courses



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THANK YOU