**Brandeis**
U N I V E R S I T Y

# Designing Equity-Minded and Aligned Syllabi

**Mary-Ann Winkelmes, Ph.D.**

**Executive Director, Center for Teaching and Learning, Brandeis University**

**Founder and Principal Investigator,** TILT Higher Ed
Transparency in Learning and Teaching

# Overview

PURPOSE:
- Consider equitable ways to improve students' metacognitive awareness of the value of a Syracuse education
- Choose syllabus/alignment strategies you can sustain

TASKS:
- (me)  Review: summary of research findings, cases
- (you) Question, discuss, apply, peer review

CRITERIA:

You'll leave with
- Understanding of research
- Strategies for applying TILT to support equity-minded teaching/learning

TILT Higher Ed
Transparency in Learning and Teaching

# THANK YOU, Co-facilitators and Planners!

Martha Diede
Nick Bennett
Anne E. Mosher
Amanda Johnson

TILT Higher Ed
Transparency in Learning and Teaching

# Why do we need equity-minded course design?

**Equity Crisis:  Access ≠ Equity**

- Underrepresented, first generation, low income: half as likely to complete college in 4 years as white/Asian peers
- New majority college student: underserved
- Gatekeepers stunt research
- High-achievement in HS can frustrate college success
- Well-prepared novices don't think like experts

| Challenges | Strategies |
|---|---|
| **Preparation**<br>Underprepared<br>Misunderstand directions & rubrics<br>Don't connect to prior/current knowledge<br>Lack of writing/research skills | Class time to work w/coaching<br>Connect work with real-world applications<br>Model & practice skills during class<br>Low-stakes practice before graded work<br>Analyze examples of real world work |
| **Motivation**<br><br>Don't see relevance<br>Don't feel engaged (apathy)<br>Don't know the steps to take<br>Fear of failure; lack of confidence | Communicate high expectations<br>Promote growth mindset<br>Opportunity to recover after mistakes<br>In-class work with helpers and outside resources<br>Find relevance to their lives, examples at start |
| **Time management**<br>Poor planning,<br>Underestimate time required<br>Competing commitments: work/family | Scaffolding/Feedback/Revision<br>Offer time estimates for tasks<br>Reminders, check-ins, checklists, timelines<br>Cumulative projects |
| **Access to Resources**<br>Books, readings<br>Computer/internet, technology off campus<br>Don't know how/when to get help<br>Mental health | Class time for questions<br>Support providers visit during class<br>Work/downloads happen during class<br>Encourage metacognition, reflection in class |

# Predictors of Equitable Student Success

- Confidence

- Belonging

- Metacognition

- Access

Federal funds go to Institutions who do this well:
CCs, MSIs, HBCUs , Public universities

Walton/Cohen (2011, 2020), Haussman et al (2009)

## Transparent pedagogies meet these goals.

Winkelmes, M.A., 2009-2022

TILT Higher Ed
Transparency in Learning and Teaching

# What is Transparent Instruction?

Transparent teaching and learning methods explicitly focus on:

- *how* students are learning course content,

- *why* we manipulate their learning experiences in particular ways

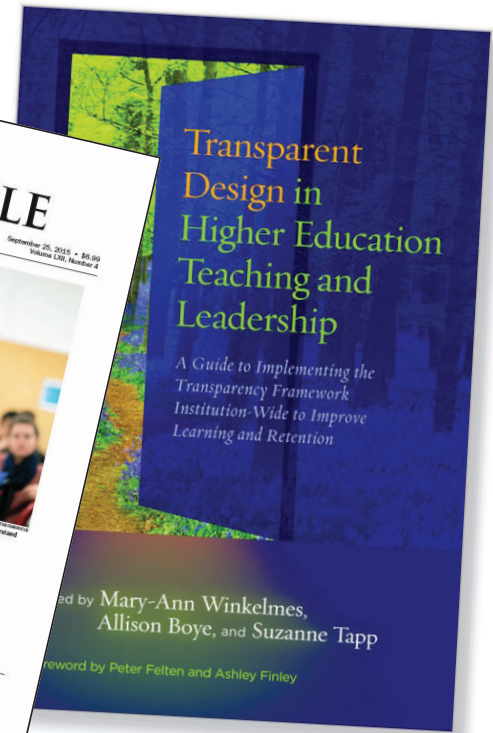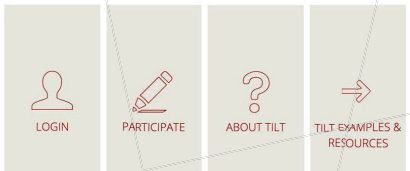- how students will use this learning in their lives after college.

# Gaining Attention: 3 main reasons

Winkelmes, M.A., 2009-2019

TILT Higher Ed
Transparency in Learning and Teaching

# Two Research Studies

- National Study: Association of American Colleges & Universities and TILT

- University of Nevada, Las Vegas, Student Retention Study

# 1st Study: AAC&U TGPHILANTHROPY

Co-PIs:     Tia Brown McNair, Ashley Finley, AAC&U

            Mary-Ann Winkelmes, *TILT* Higher Ed

Schools:
- Community College of Philadelphia
- Queensborough Community College, Bayside, NY
- St Edward's Univ. Austin, TX
- Univ. of Houston – Downtown, TX
- California State University, LA
- Winston-Salem State University, NC
- Heritage University, Toppenish, WA

Publication: *Peer Review* (Spring 2016)

*TILT* Higher Ed
Transparency in Learning and Teaching

# 1st Study: Implementation

2014-2016 AAC&U study funded by

"Transparency and Problem-centered Learning"

- 7 MSIs, 1800 students, 35 faculty
  - 425 First generation students
  - 402 non-white students
  - 479 low-income students
  - 297 multiracial students

- 2 x **small teaching intervention**

# Transparent Assignment Design Template

**Purpose**
- Skills practiced } long-term relevance to students' lives
- Knowledge gained } relation to stated learning outcomes

- **Task**
  - What students will do
  - How to do it (steps to follow, avoid)

- **Criteria** for success
  - Checklist or rubric in advance so students can self-evaluate
  - What excellence looks like (real world examples where students/faculty apply those criteria)

TILT Higher Ed
Transparency in Learning and Teaching

# Results, 2 Studies:

Boosted students' learning in 3 important ways (medium-large effect for underserved students):
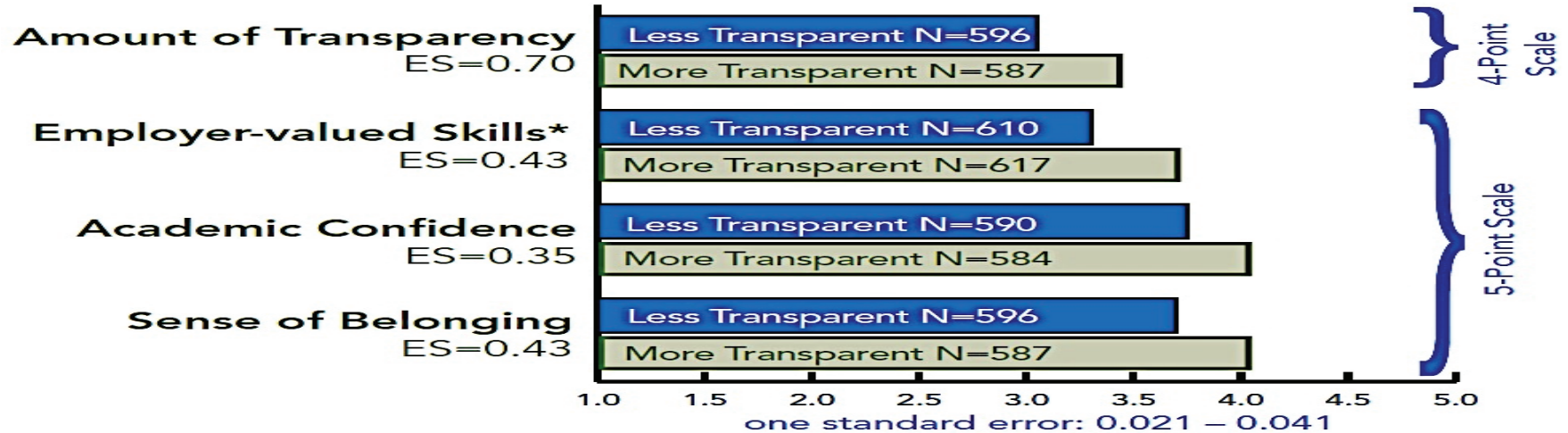
- Academic confidence
- Sense of belonging
- Metacognitive awareness of skill development (employer-valued skills, Hart Research Assoc.)
- Retention rates into 2nd year, 3rd year

**SUCCESS PREDICTORS Increased persistence, grades**

TILT Higher Ed
Transparency in Learning and Teaching

# Impact: Boosted Success Predictors for ALL



**All Disciplines/All Students, End of Term**

**Amount of Transparency**
ES=0.70
- Less Transparent N=596
- More Transparent N=587

**Employer-valued Skills***
ES=0.43
- Less Transparent N=610
- More Transparent N=617

**Academic Confidence**
ES=0.35
- Less Transparent N=590
- More Transparent N=584

**Sense of Belonging**
ES=0.43
- Less Transparent N=596
- More Transparent N=587

4-Point Scale

5-Point Scale

1.0  1.5  2.0  2.5  3.0  3.5  4.0  4.5  5.0
one standard error: 0.021 – 0.041

KEY:  N: number of students responding
ES: effect size (Hedges' G). Effect sizes of 0.25 standard deviations or larger are "substantively important" (US Dept of Education WWC, 2014, p. 23).
Less Transparent: mean perceived transparency <3.3/4
More Transparent: mean perceived transparency ≥3.3/4
*Hart Associates 2015, 2013

Winkelmes, M.A., 2009-2019

**TILT** Higher Ed
Transparency in Learning and Teaching

# Baseline Equivalence

## All Disciplines/All Students, Beginning of Term



**Confidence to Succeed**

Please rate your confidence about your ability to succeed in this field. — ES=0.07

Please rate your confidence about your ability to succeed in school. — ES=0.003

**Skills Highly Valued by Employers***

I am capable of learning effectively on my own. — ES=0.009

I tend to consider the ethical implications of my actions. — ES=0.031

I am able to apply the things I have learned to new problems and situations. — ES=0.036

When I get information from multiple sources, I have an easy time making connections between them. — ES=0.004

I an good at breaking down theories, ideas, and experiences into pieces, so I can consider them. — ES=0.063

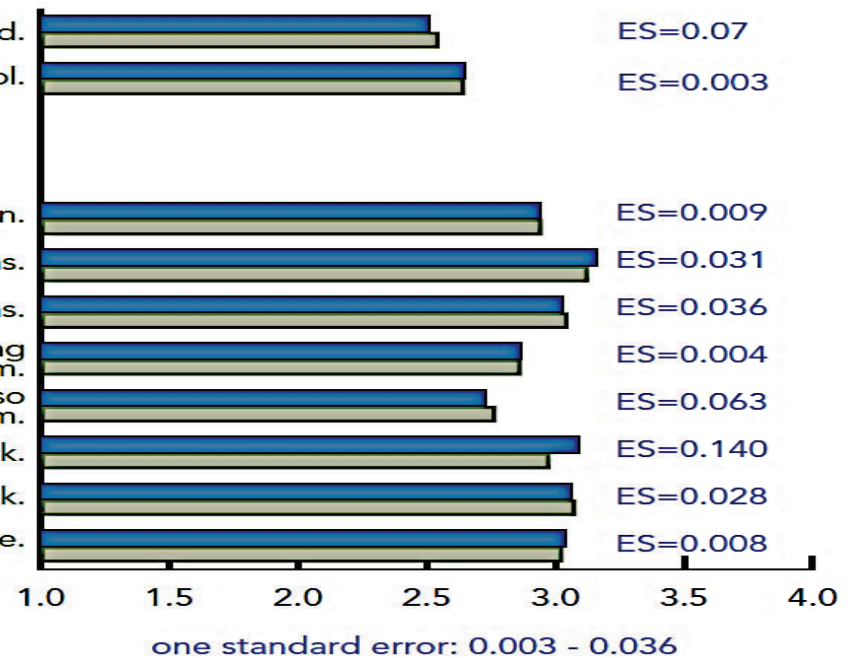I collaborate well with others on academic work. — ES=0.140

I can communicate effectively when I speak. — ES=0.028

I can express my ideas effectively when I write. — ES=0.008

■ Students in Less Transparent Courses (N=630)
□ Students in More Transparent Courses (N=485)
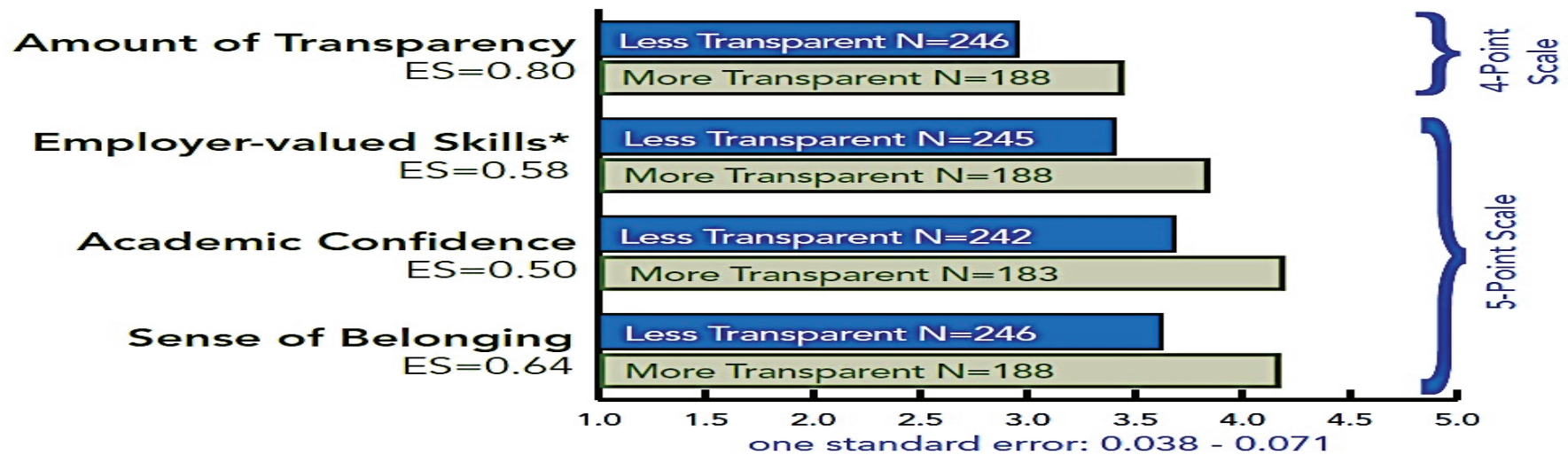ES: effect size (Hedges' G)

one standard error: 0.003 – 0.036

*Hart Associates 2015, 2013

Winkelmes, M.A., 2009-2019

*TILT* Higher Ed
Transparency in Learning and Teaching

# 2<sup>nd</sup> Study UNLV: 1-year Retention Rates Increase

**Primarily Transparent**

**85.5%**     **N = 744/870**

**Cohort 2158**

**77.10%**     **N = 2821/3658**

**Cohort 2158 w/o PT**

**69.98% N = 1951/2788**

50.00% 55.00% 60.00% 65.00% 70.00% 75.00% 80.00% 85.00% 90.00%

**Blue:** UNLV first-time, full-time 1st year students in 2015-2016 enrolled in "primarily transparent" courses in Fall 2015 or Spring 2016, retained 10/2016

**Red:** All UNLV first-time, full-time 1st year students in 2015-2016, including those in "primarily transparent" courses, retained 10/2016
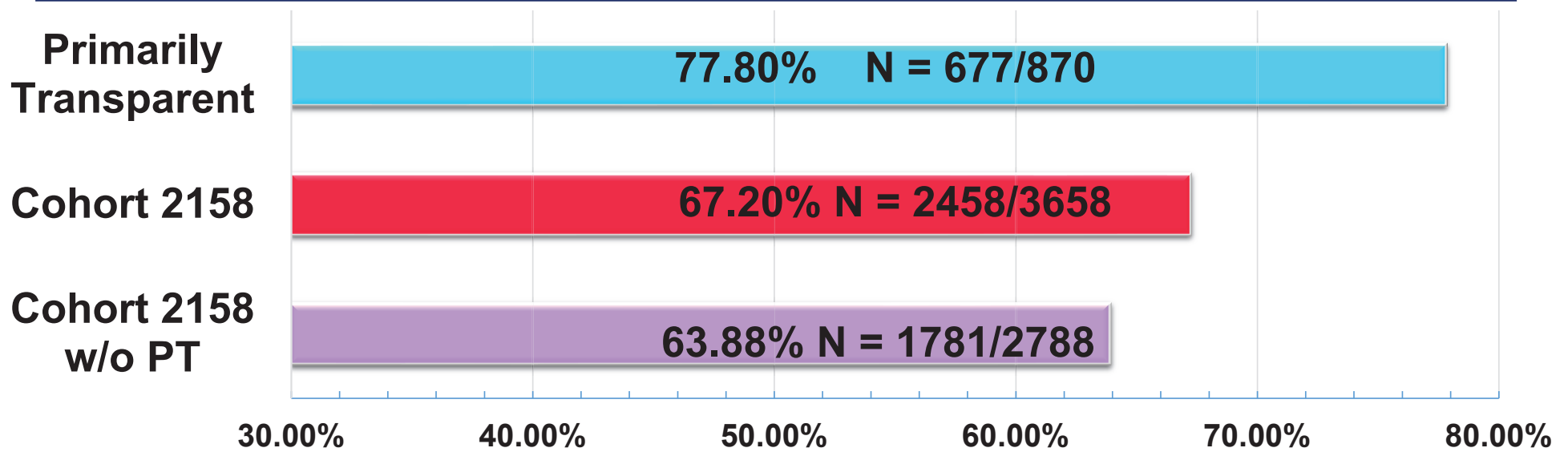
**Purple:** UNLV first-time, full-time 1st year students in 2015-2016, **excluding** those in "primarily transparent" courses, retained 10/2016
(Sources: TILT Survey; UNLV Data Warehouse/Office of Decision Support, 10/23/2017)

Winkelmes, M.A., 2009-2019

*TILT* Higher Ed
Transparency in Learning and Teaching

# 2nd Study UNLV: 2-year Retention Rates Increase

Chart:
- **Primarily Transparent:** 77.80%   N = 677/870
- **Cohort 2158:** 67.20% N = 2458/3658
- **Cohort 2158 w/o PT:** 63.88% N = 1781/2788

X-axis: 30.00%  40.00%  50.00%  60.00%  70.00%  80.00%

Blue: UNLV first-time, full-time 1st year students in 2015-2016 enrolled in "primarily transparent" courses in Fall 2015 or Spring 2016, retained 10/2017

Red: All UNLV first-time, full-time 1st year students in 2015-2016, including those in 2015-2016 "primarily transparent" courses, retained 10/2017
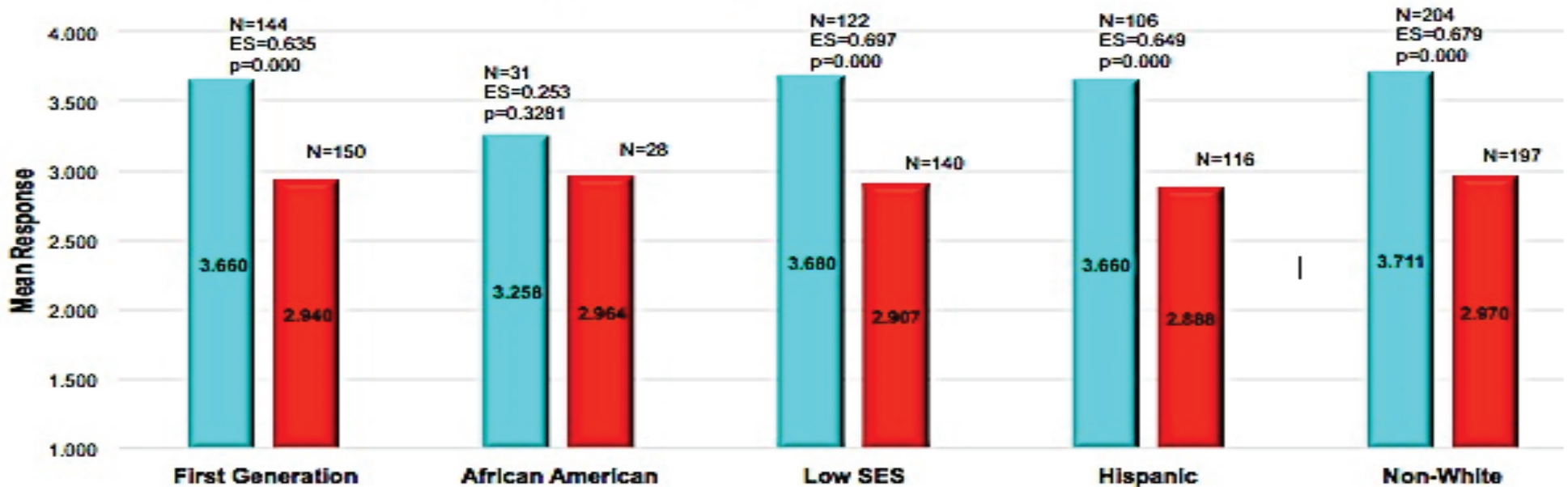
Purple: UNLV first-time, full-time 1st year students in 2015-2016, excluding those in 2015-2016 "primarily transparent" courses, retained 10/2017

(Sources: TILT Survey; UNLV Data Warehouse/Office of Decision Support, 10/23/2017 and 03/02/2018)

Winkelmes, M.A., 2009-2019

TILT Higher Ed
Transparency in Learning and Teaching

# 2nd Study UNLV: Students See Increased Skill Development



**Helped Collaborating Effectively: STEM & Life Sciences**

First Generation: N=144, ES=0.635, p=0.000, blue 3.660; N=150, red 2.940
African American: N=31, ES=0.253, p=0.3281, blue 3.258; N=28, red 2.964
Low SES: N=122, ES=0.697, p=0.000, blue 3.680; N=140, red 2.907
Hispanic: N=106, ES=0.649, p=0.000, blue 3.660; N=116, red 2.888
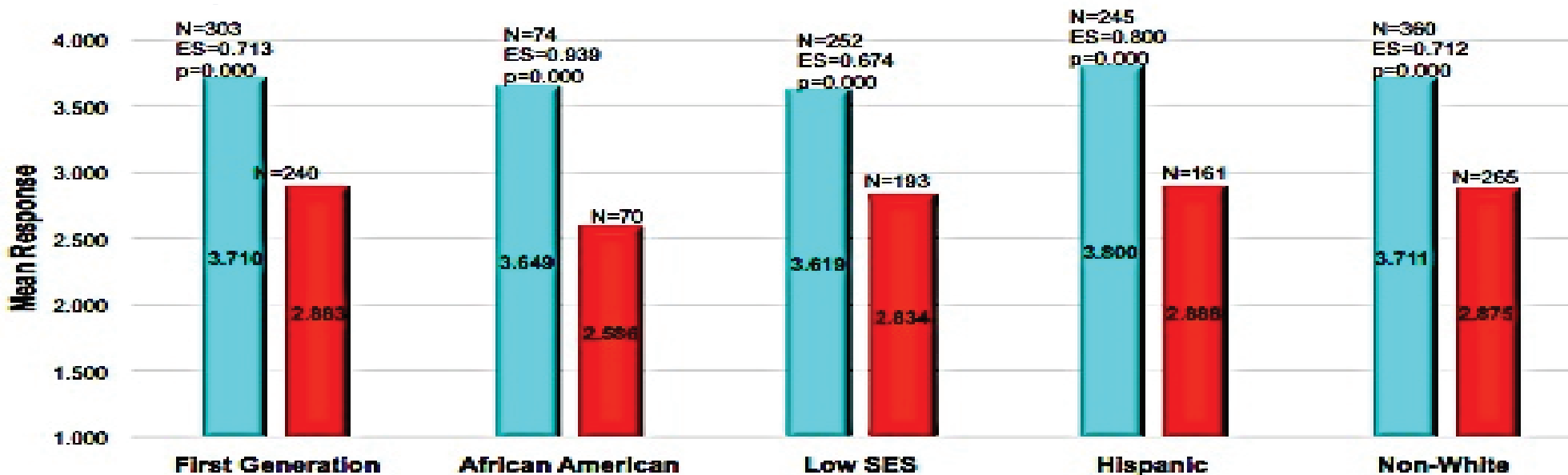Non-White: N=204, ES=0.679, p=0.000, blue 3.711; N=197, red 2.970

**red:** UNLV students enrolled in 100-level or below "less transparent" courses Spring 2015-Fall 2015
**blue:** UNLV students enrolled in 100-level or lower "more transparent" courses Spring 2015-Fall 2015

Winkelmes, M.A., 2009-2019

TILT Higher Ed
Transparency in Learning and Teaching

# 2nd Study UNLV: Students See Increased Skill



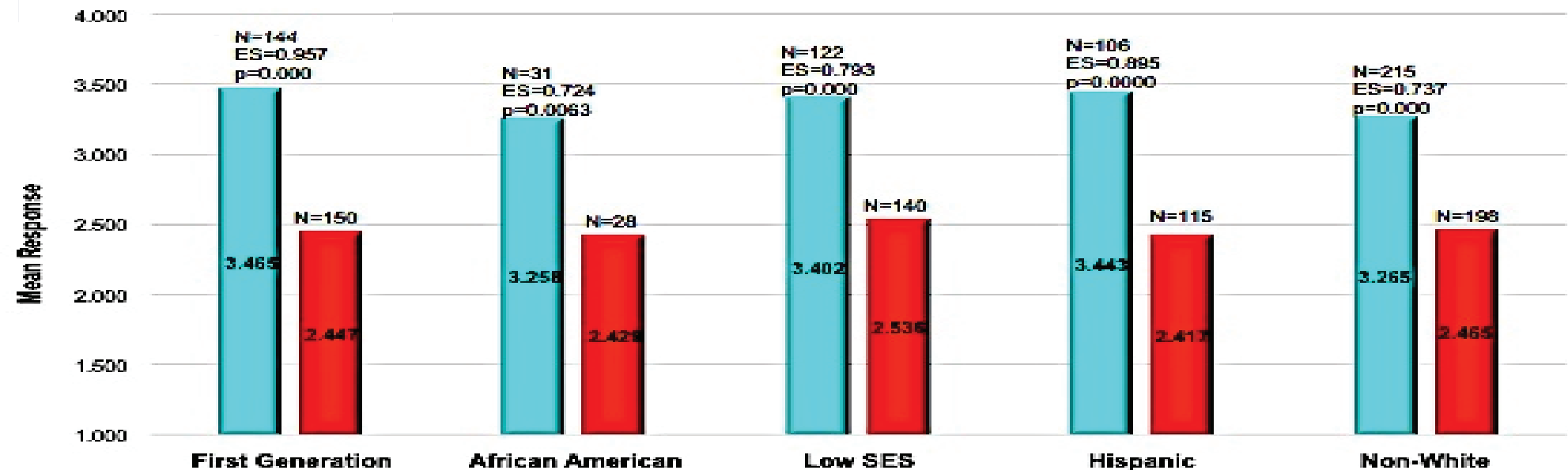**Helped Collaborating Effectively: Humanities & Social Sciences**

red: UNLV students enrolled in 100-level or below "less transparent" courses Spring 2015-Fall 2015
blue: UNLV students enrolled in 100-level or lower "more transparent" courses Spring 2015-Fall 2015

Winkelmes, M.A., 2009-2019

TILT Higher Ed
Transparency in Learning and Teaching

# 2nd Study UNLV: Students See Increased Skill



Helped Communicating: Writing, STEM & Life Sciences

red: UNLV students enrolled in 100-level or below "less transparent" courses Spring 2015-Fall 2015
blue: UNLV students enrolled in 100-level or lower "more transparent" courses Spring2015-Fall 2015

TILT Higher Ed
Transparency in Learning and Teaching

# Two Studies: The TILT Intervention

**Purpose**
- Skills practiced          long-term relevance
- Knowledge gained  **}**       to students' lives

- **Task**
  - What students will do
  - How to do it (steps to follow, avoid)

- **Criteria** for success
  - Checklist or rubric in advance so students can self-evaluate
  - What excellence looks like (real world examples where students/faculty apply those criteria)