

CCT Competency 5: Assessing Student Learning

Mentored Teaching Project: Pre-Course Attitudes and Group Performance

Competency Description

Assessing Student Learning involves using summative and formative approaches to evaluate student learning outcomes effectively. This competency encompasses testing, grading, classroom assessment, course design, and portfolio assessment. For marketing education, this includes developing valid assessment instruments that measure both individual knowledge acquisition and collaborative learning outcomes.

Project Overview

Research Question: "How do students' initial attitudes toward group work (self-rated collaboration skills and contribution patterns) predict their performance in collaborative marketing case study assignments compared to their individual exam performance?"

Context: MKT 327 Introduction to Marketing, Summer 2025

Sample: 63 students (94% finished pre-survey with 67 enrolled)

Duration: 6-week intensive course (July 1 - August 15, 2025)

Assessment Instruments & Data Collection

1. Pre-Course Assessment Survey

Purpose: Measure student attitudes and backgrounds before collaborative learning begins

Instruments:

- Group work confidence: 5-point Likert scale (1=very low to 5=very high)
- Expected contribution patterns: 4-category scale (equal/more/much more/less than others)
- Marketing familiarity: 5-point scale (1=not familiar to 5=extremely familiar)
- Online comfort level: 5-point scale (1=very uncomfortable to 5=very comfortable)

Response Rate: 63/67 students (94% completion)

2. Performance Assessment Data

Group Work Assessment:

- Four collaborative case studies (100 points each, 400 points total)
- Companies: Nike/Mayo/Louis Vuitton, Chase/Apple/Uber, Redbull/Bestbuy/Airbnb, IKEA/Starbucks/Honest Tea
- Multiple format options: 200-300 words, 3-4 minute video, or infographic with explanation

- 14 groups of 5 students each, randomly assigned

Individual Assessment:

- Three exams (200 points each, best 2 counted)
- Administered Weeks 3, 5, and 7
- Individual knowledge assessment of marketing concepts

3. Mid-Course Follow-up Survey

Purpose: Track attitude changes and actual collaboration experiences

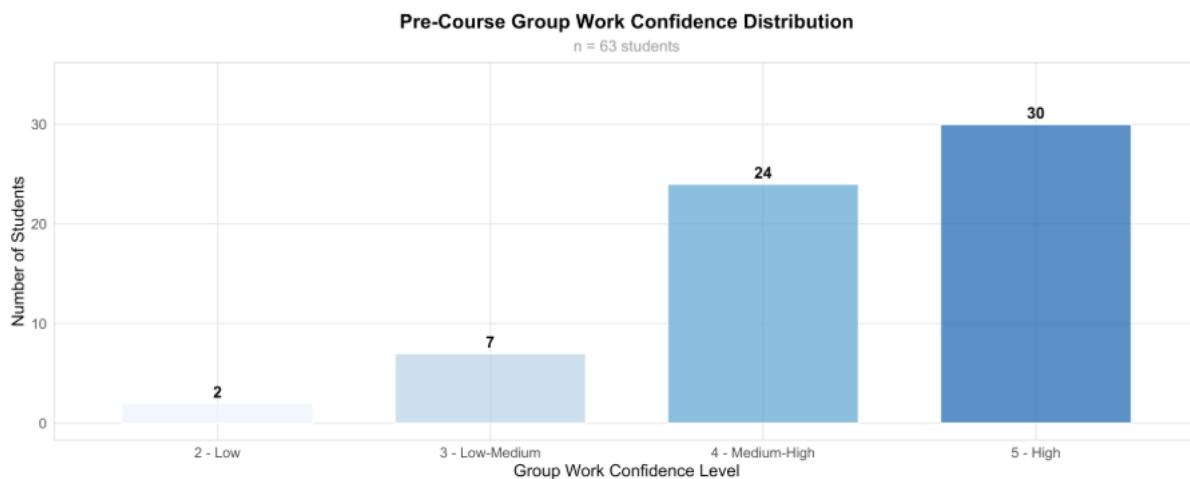
- Collaboration experience ratings compared to initial expectations
- Marketing familiarity progression assessment

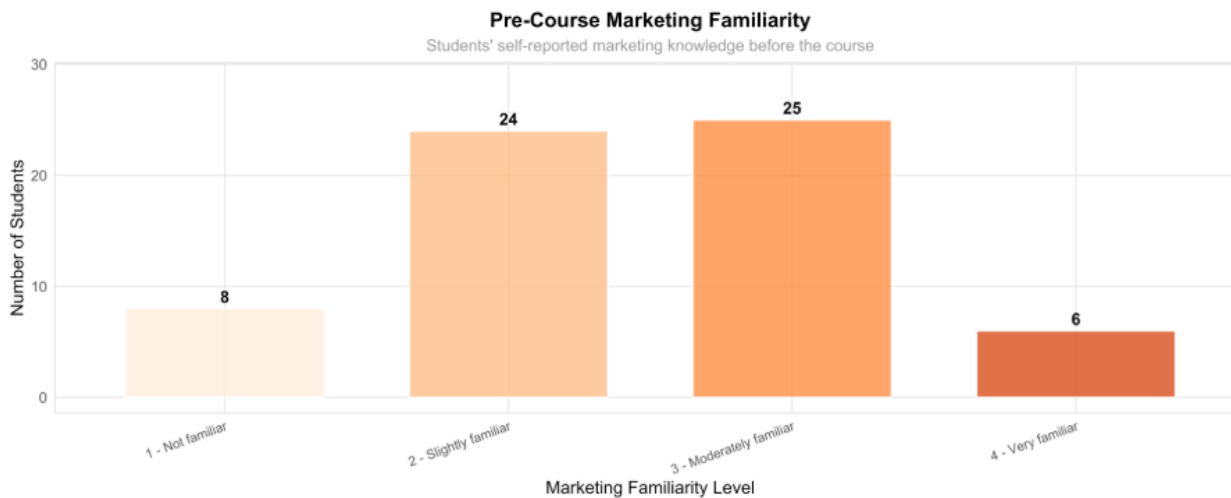
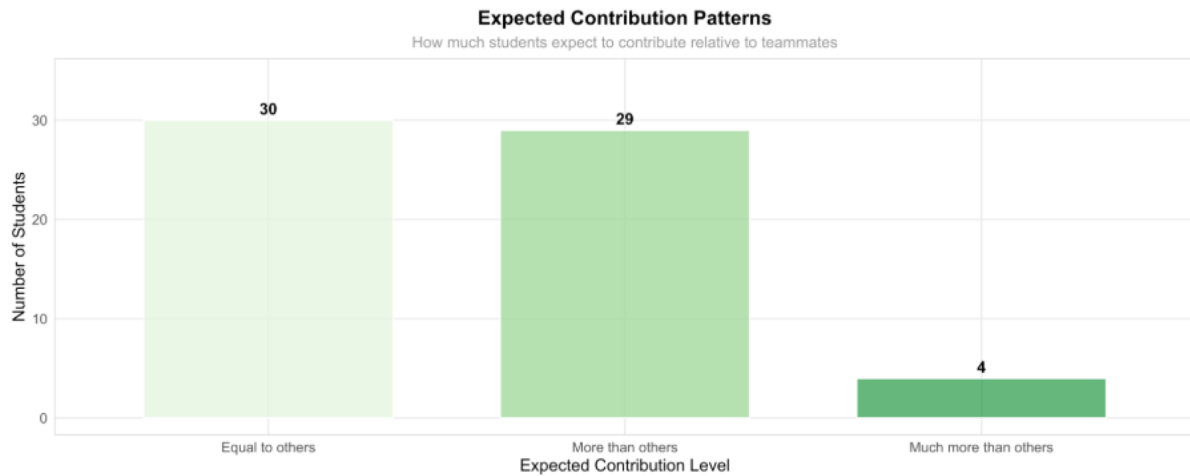
Findings & Data Analysis

Sample Characteristics (n=63)

Pre-Course Attitudes:

- Group Confidence: $M = 4.30$, $SD = 0.80$ (85.7% rated medium-high to high confidence)
- Contribution Expectations: 47.6% expect equal contribution, 46.0% expect to contribute more, 6.3% much more
- Marketing Familiarity: $M = 2.46$, $SD = 0.84$ (mostly slight to moderate familiarity)
- Online Comfort: $M = 3.86$, $SD = 1.22$ (full range of comfort levels)





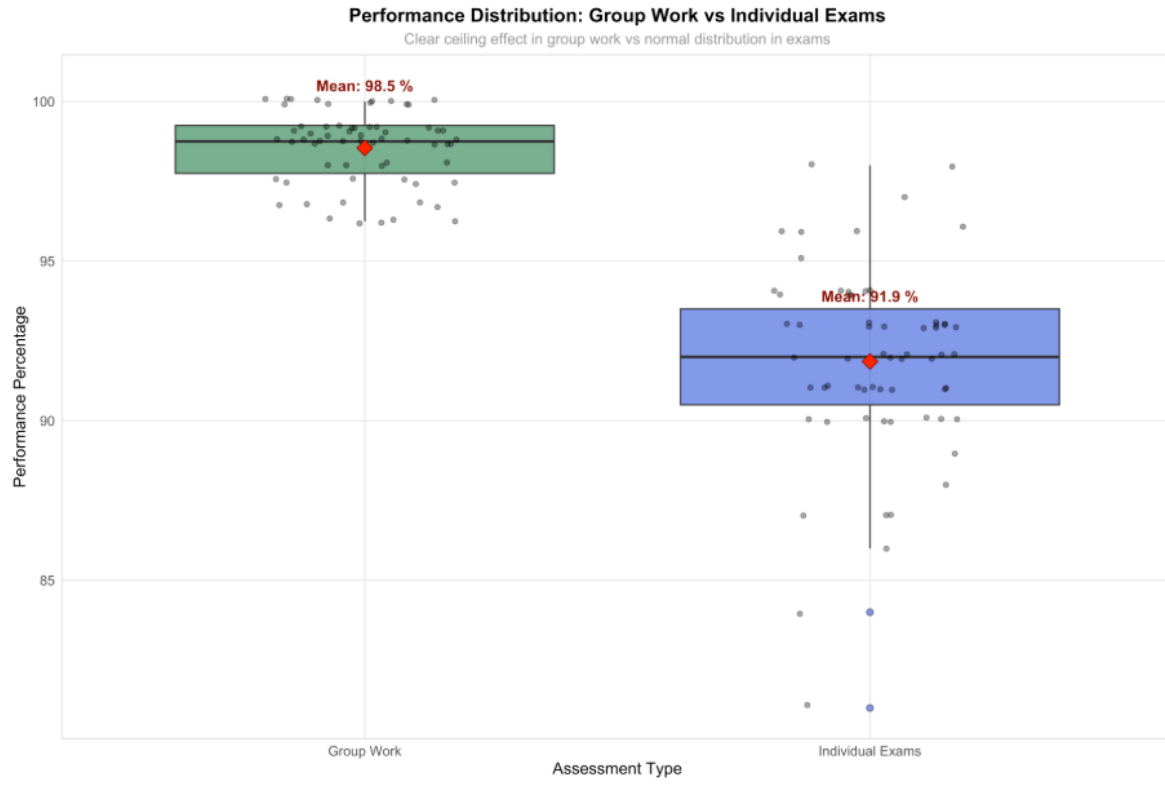
Performance Outcomes

Group Work Performance:

- Mean = 98.55%, SD = 1.15 (range: 96.25%-100%)
- Extremely low variability (Coefficient of Variation = 1.17)
- Clear ceiling effect evident

Individual Exam Performance:

- Mean = 91.86%, SD = 3.05 (range: 81%-98%)
- Normal academic variability (Coefficient of Variation = 3.32)
- 7× higher variance compared to group work



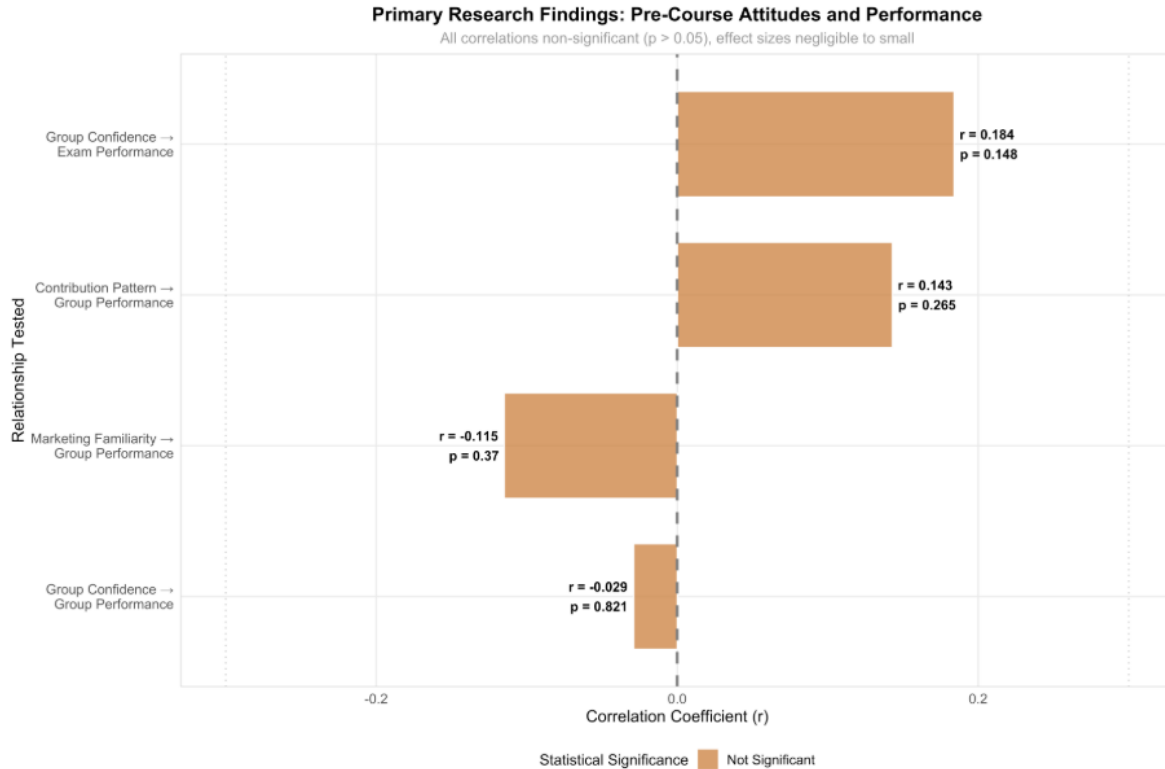
Performance Gap: Group work scores systematically 6.7 percentage points higher than exam scores

Primary Research Findings

Correlation Analysis Results:

Relationship	Correlation (r)	P-Value	Effect Size	Significance
Group Confidence → Group Performance	-0.029	0.821	Negligible	Not Significant
Contribution Pattern → Group Performance	0.143	0.265	Small	Not Significant
Group Confidence → Exam Performance	0.184	0.148	Small	Not Significant
Marketing Familiarity → Group Performance	-0.115	0.370	Small	Not Significant

Key Statistical Finding: No significant correlations found between pre-course attitudes and collaborative performance (all $p > 0.05$).



Assessment Design Insights

Critical Discovery: Ceiling Effect in Group Assessment

The most significant finding was not about student attitudes but about assessment design itself. The group work assessment system created a ceiling effect ($M = 98.55\%$, $SD = 1.15\%$) that masked individual differences and made performance prediction impossible.

Evidence of Assessment Issues:

- Minimum group score: 96.25% (suggesting overly lenient grading)
- 7× less variance in group work compared to individual assessment
- Systematic 6.7 percentage point inflation in group scores

Assessment Validity Analysis

Discriminant Validity: Group work assessment lacked sufficient discrimination between performance levels, suggesting the rubric was too generous or poorly calibrated.

Construct Validity: The assessment may have measured group coordination and time management more than marketing knowledge application.

Predictive Validity: Pre-course attitudes showed no predictive relationship with group performance, contrary to expectations based on collaborative learning literature.

Pedagogical Implications & Future Applications

Teaching Philosophy Shift

FROM: "Right students in right groups" (selection-focused approach)

TO: "Right assessment design for all groups" (design-focused approach)

This research fundamentally changed my approach from student selection focus to assessment design focus, demonstrating that how we assess collaborative work matters more than how we form groups.

Immediate Course Improvements for Summer 2026

1. Abandon Pre-Course Screening: Since attitudes don't predict performance, implement random or convenience-based group formation strategies.

2. Revise Group Assessment Rubric:

- Increase rigor and discrimination to create meaningful performance variance
- Develop scoring criteria that capture individual learning within group context
- Align assessment difficulty with individual exam standards

3. Add Individual Accountability Measures:

- Implement peer evaluation systems
- Include individual components within group projects
- Track individual contributions within collaborative work (Thru Google)

4. Enhanced Assessment Design:

- Focus professional development on assessment methodology rather than group formation strategies
- Develop multiple assessment points within each case study

Methodological Insights for Marketing Education

Assessment Design Principles:

- Collaborative assessments must maintain appropriate difficulty levels to avoid ceiling effects
- Rubric design significantly impacts the validity of group work evaluation
- Individual accountability within group work is essential for meaningful assessment

Student Learning Outcomes:

- Students successfully developed collaborative problem-solving skills despite assessment limitations
- Marketing concept application occurred effectively within group context
- Peer connections and engagement objectives were achieved

Artifacts & Evidence

Research Documentation

- **6-Step Mentored Teaching Project Worksheet:** Complete systematic analysis following CCT framework
- **Project Approval Document:** Formal mentor approval and assessment plan
- **Statistical Analysis Code:** Comprehensive R analysis

Assessment Instruments

- Pre-course attitude survey (94% response rate)
- Mid-course follow-up survey (tracking attitude changes)
- Group case study rubrics and performance data
- Individual exam assessment data

Data Analysis Results

- Complete statistical analysis with correlation matrices, descriptive statistics, and effect size calculations
- Visual data representations (demographic distributions, performance comparisons, correlation analyses)

Reflection on Assessment Practice

What I Learned

Primary Discovery: The most valuable learning was about assessment design rather than group formation. The data revealed that my assessment system was the limiting factor in understanding student performance, not student characteristics.

Assessment Expertise Development: This project developed my ability to:

- Design and implement systematic data collection for teaching assessment
- Analyze assessment validity and reliability issues
- Identify ceiling effects and discrimination problems in rubric design
- Connect statistical findings to pedagogical practice

What Surprised Me

1. Complete Lack of Predictive Validity: Even small effect sizes were not consistently observed between attitudes and performance.

2. Magnitude of Assessment Issues: The 98.55% average with 96.25% minimum revealed more about my grading practices than student capabilities.

3. Stronger Individual Patterns: Pre-course attitudes showed slightly stronger (though still non-significant) relationships with individual work, opposite of expectations.

Impact on Future Teaching Practice

Evidence-Based Teaching Strategy: This research provides concrete evidence for future course design decisions, moving from intuition-based to data-driven approaches.

Assessment-Focused Professional Development: The findings direct my continued learning toward rubric design, validity assessment, and collaborative learning evaluation methods.

Conclusion

This Mentored Teaching Project demonstrates comprehensive competency in assessing student learning through systematic research design, valid data collection, statistical analysis, and pedagogical application. The project's most significant contribution is revealing how assessment design impacts our ability to understand and support student learning in collaborative contexts.

The research provides actionable insights for improving marketing education assessment practices while contributing to broader understanding of collaborative learning evaluation.