

EDUCATIONAL SHIFTS IN PARADIGMS:

TRADITIONAL VERSUS PERFORMANCE BASED ASSESSMENTS

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Background

- ❖ In 2017, School Administrative Unit #9 began transitioning to Competency Based Education.
- ❖ My transition to an investigative problem-solving student-centered classroom began.
- ❖ Understanding by Design drove the creation of assessments and then the content for each module.
- ❖ Modules were modified based on observations, feedback, and assessment results.

Research Questions

Action Research Question (ARQ): How will the varying components that make up a student-centered classroom affect student achievement on traditional versus performance summative assessments?

- ❖ **Sub Question #1 (SQ1):** How will immediate feedback impact a student's confidence in the material?
- ❖ **Sub Question #2 (SQ2):** What effect will it have on a student's risk taking and problem-solving capabilities?
- ❖ **Sub Question #3 (SQ3):** How will my student-centered classroom evolve based on the feedback that students provide?
- ❖ **Sub Question #4 (SQ4):** How do assessments scores impact my teaching practice in a student-centered classroom?

Results

- ❖ Students' self confidence increased throughout the modules.

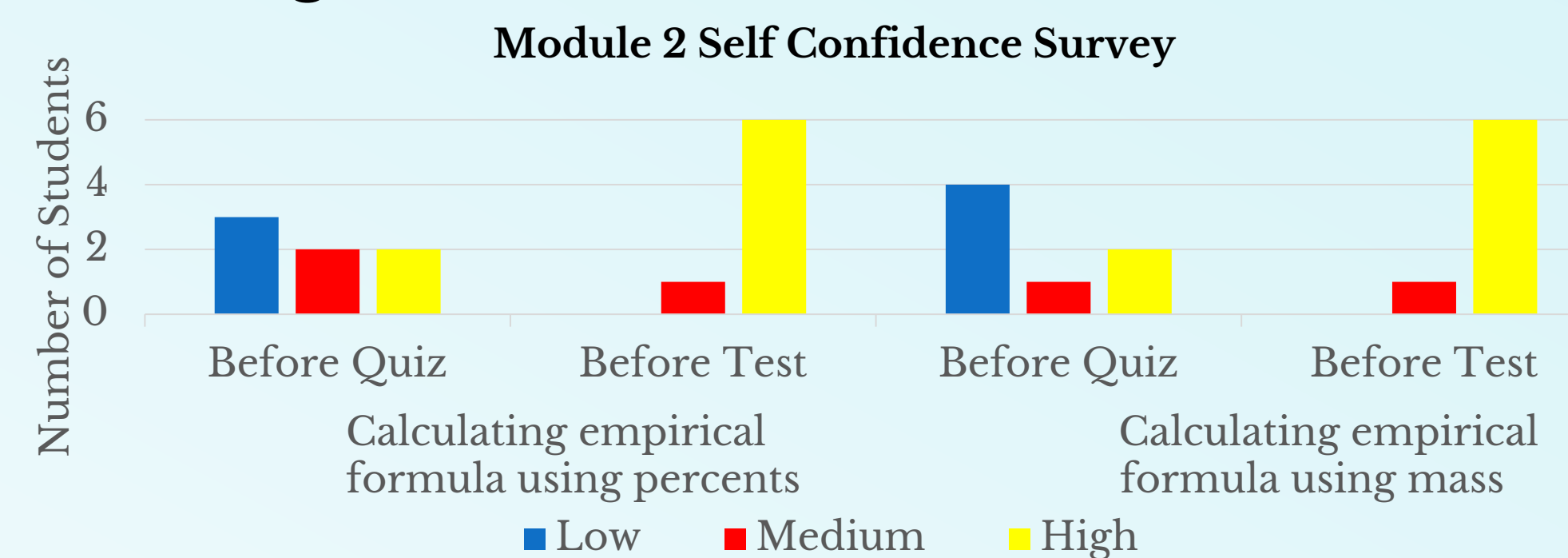
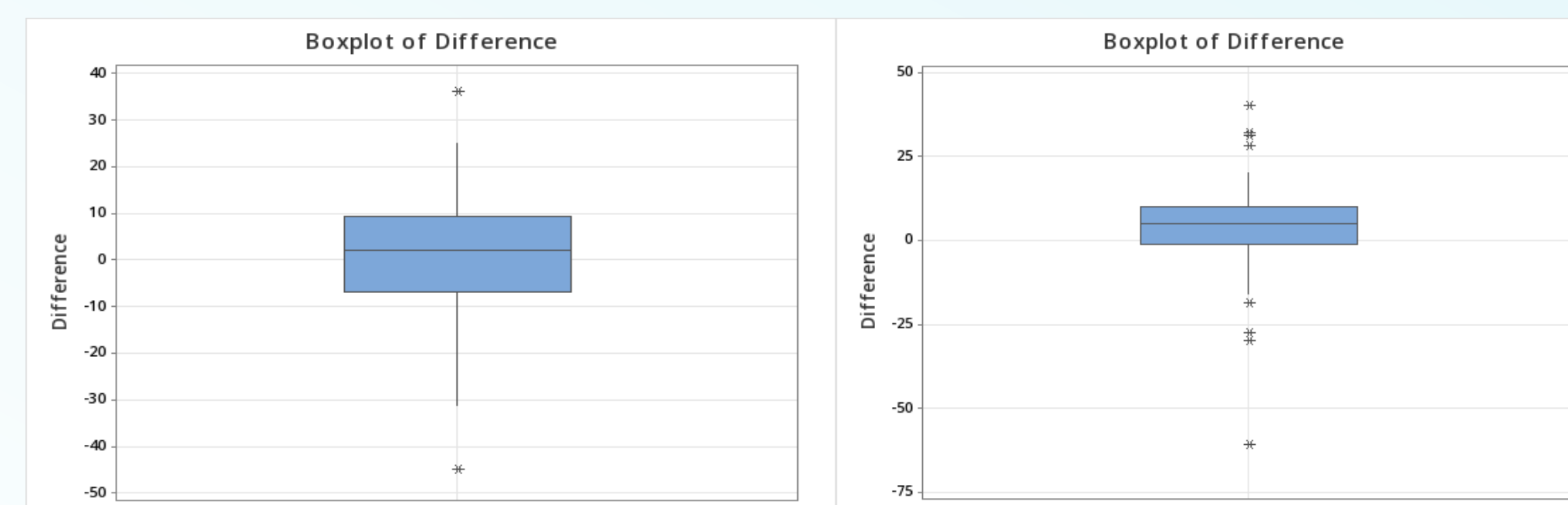


Figure 1. Modules 2 self-confidence survey before quiz and test, (N=7).

- ❖ For module 2, students on average performed better on the traditional assessment (median = 92.5) than the performance assessment (median = 87.5).
- ❖ However, the mean difference (traditional - performance) is not statistically significant.



Figures 2 and 3. Module 2 and 3 boxplot of the mean differences between traditional and performance assessment, (N=88) and (N=86).

- ❖ For module 3, students on average performed better on the traditional assessment (median = 94) than the performance assessment (median = 90).
- ❖ The mean difference (traditional - performance) is statistically significant.

Methodology

- ❖ At the beginning of module 2 and 3, students took a self-confidence survey.
- ❖ Students worked at their own pace to learn the content through a variety of modalities.
- ❖ The self-confidence survey was administered again before each quiz and summative assessments.
- ❖ Summative assessments were given as both traditional and performance assessments to compare achievement.

Conclusion

- ❖ Activities were modified or eliminated based on student feedback.
- ❖ Students' confidence level increased throughout the modules based on survey results and student conferencing interviews.
- ❖ For module 2, the mean difference (traditional - performance) is not statistically significant.
- ❖ For module 3, the mean difference (traditional - performance) is statistically significant. Modifications to the curriculum are necessary to assist students analyzing data versus traditional acid base word problems.