



The Effect of In Class Intervention on MMI Scores in First Year Pharmacy Students

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Objective

To evaluate if participation in in-class exercises designed to improve students' communication skills and other transferable skills will affect their performance on an MMI (Multiple-Mini Interviews) assessment among first year pharmacy students enrolled at the University of Findlay College of Pharmacy

Background ^{1,2}

- It is imperative for future pharmacists to have excellent verbal communication skills and other transferable skills.
- It is difficult to assess and teach these skills. Assessment and teaching in the CPHM has prioritized testing students' objective knowledge base in the past.
- The CPHM has begun to emphasize transferable skills more in both teaching and assessment. There is a desire to identify individual students that need help to improve these skills early in the program.
- This project will assess students and seeks to determine a possible method for improving these vital skills early.
- Transferable skills that pharmacists must be able to master to help patients include:
 - Communicate verbally with patients and other healthcare providers
 - Empathize with patients
 - Teach abstract ideas

Methodology

- Inclusion Criteria:
 - UF CPHM students
 - First year (P1)
- An initial MMI assessment was done with four stations with 36 students.
 - Sending information
 - Receiving information
 - Empathy
 - Problem Solving/Teaching
- An in-class intervention activity to improve these skills was conducted.
- A second, similar, four station, MMI assessment was completed after the in-class activity to assess if the intervention changed their scores.
- Scores of the de-identified, individual students and the overall cohort scores on the first MMI attempt before in-class activities is compared to the MMI scores repeated after the in-class activities.
- A Two-Sample Assuming Unequal Variances t-Test was used to compare the paired data

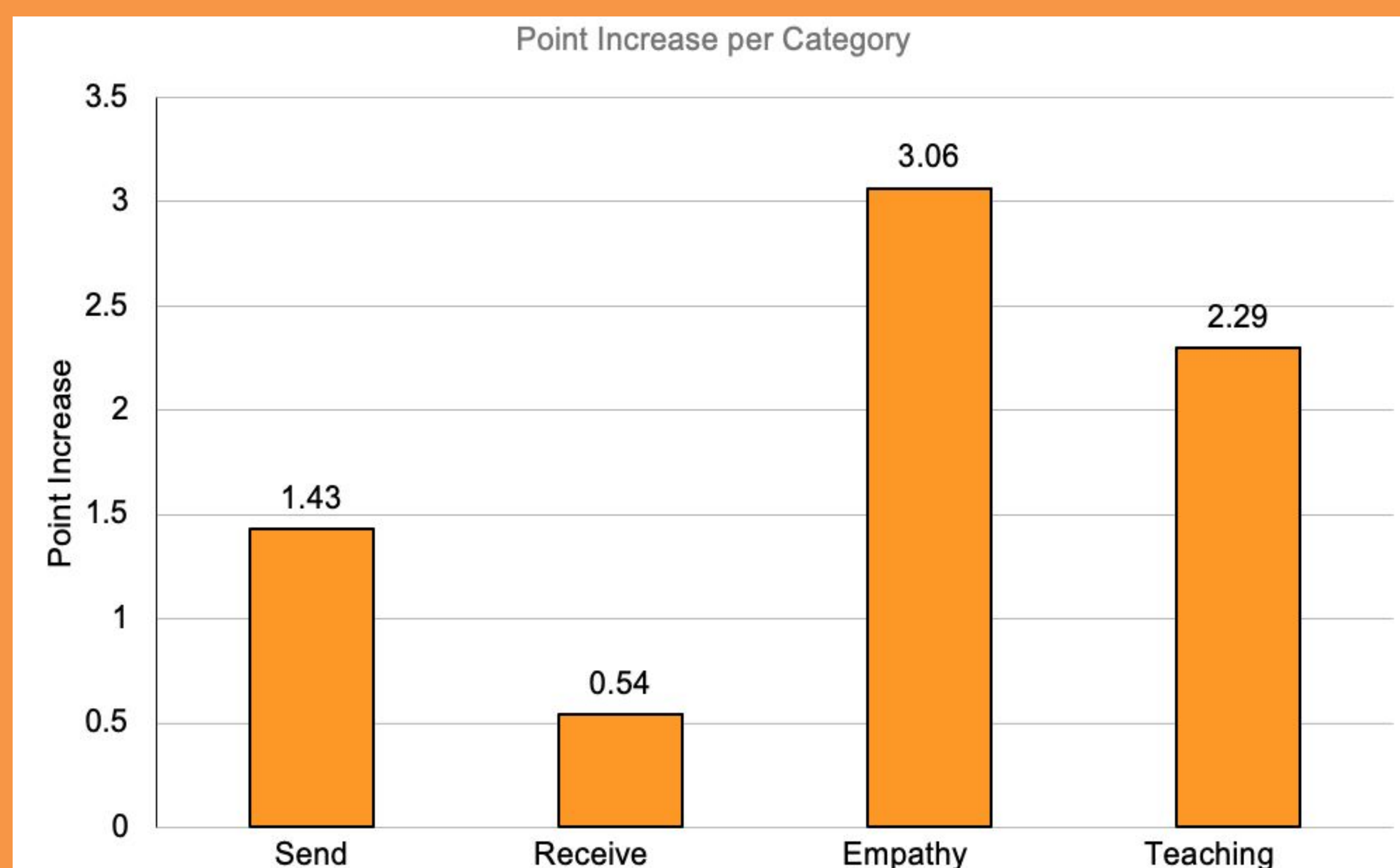
Conclusions/Discussion

- 83% of the students showed an improvement in their overall scores after the intervention.
 - 30 students had an improvement
 - 4 students had a decrease
 - 2 students had no change
- There was an improvement in each area overall, with a statistically significant improvement in all areas except receiving information. However, the receiving score was highest at baseline.
- The largest increase was in the area of empathy.
- Using in-class interventions can help to improve student performance on an MMI type assessment in the areas of
 - Sending information
 - Empathy
 - Problem Solving/Teaching
- Some limitations of the study include:
 - Limited sample size
 - Inconsistent graders
 - Attendance of participants
- Future investigations of other interventions and other needed transferable skills in pharmacists would be helpful in designing meaningful and helpful interventions to develop these important skills in future pharmacists.

References

1. Kumar, Narendra, et al. "Multiple Mini-Interview as a Predictor of Performance in the Objective: AMEP." *Advances in Medical Education and Practice*, Dove Press, 11 Apr. 2018, <https://www.dovepress.com/multiple-mini-interview-as-a-predictor-of-performance-in-the-objective-peer-reviewed-article-AMEP>
2. Wolcott1, Michael D., et al. "Using the Multiple Mini Interview as an Assessment Strategy within the First Year of a Health Professions Curriculum." *BMC Medical Education*, BioMed Central, 3 May 2018, <https://bmcomeduc.biomedcentral.com/articles/10.1186/s12909-018-1203-5>

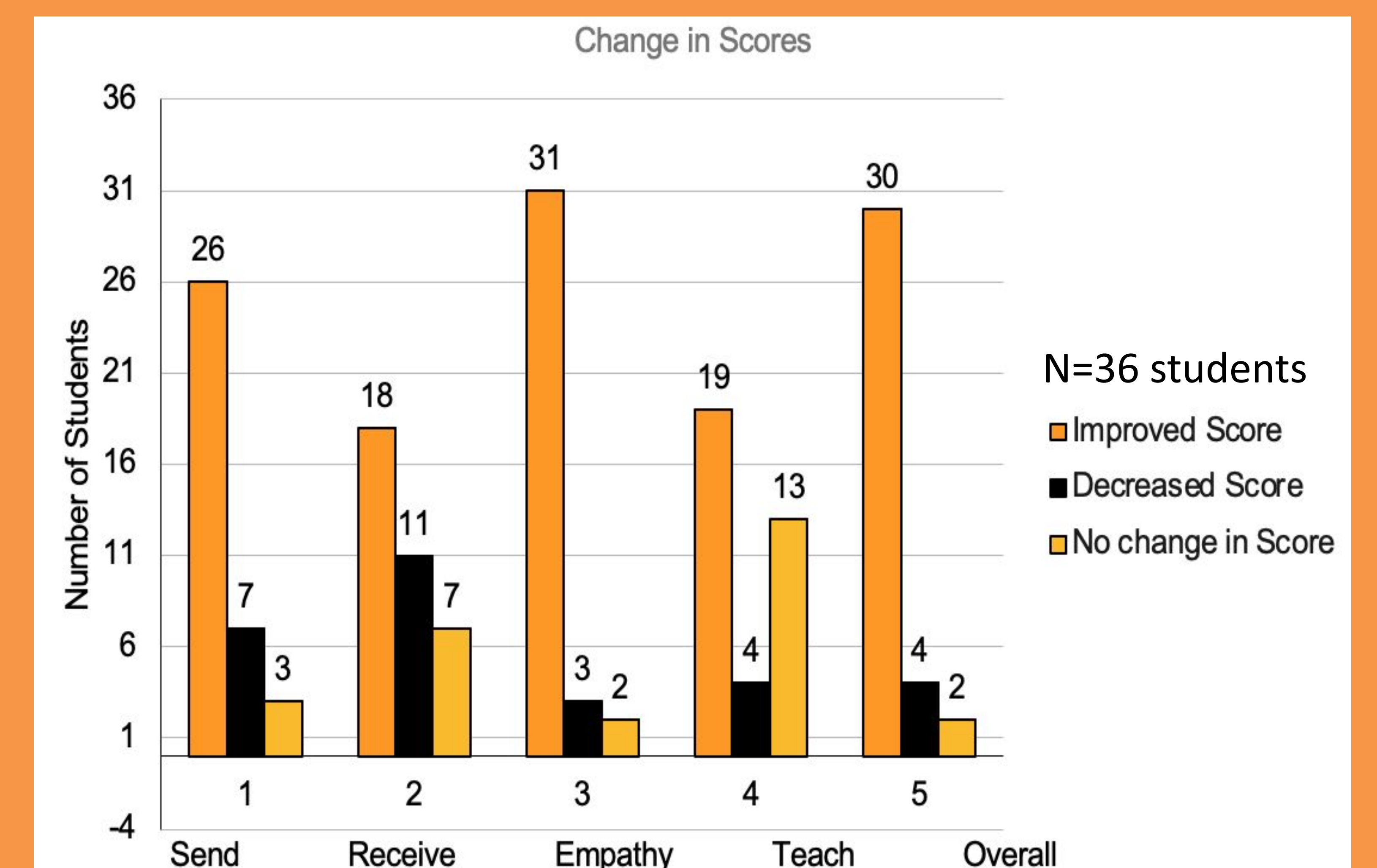
Results



*Categories were each out of 15 points total

	1 st MMI Scores Averages	2 nd MMI Scores Averages
Sending*	11.8	13.3
Receiving	12.3	12.9
Empathy*	10.8	13.9
Teaching*	12.0	14.3

*results are statistically significant



N=36 students
 ■ Improved Score
 ■ Decreased Score
 ■ No change in Score