

Improving Student Engagement Using Alternative Grading Practices



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ABSTRACT

Student engagement is crucial for achieving positive educational outcomes, both academically and socially (Tinto 2012, Hu and Kuh 2002). However, maintaining high levels of engagement, particularly in challenging courses like numerical methods, can be a significant challenge for educators. In this study, **two interventions** were implemented to address this issue: **offering bonus points** for participation and effort and utilizing **graded peer evaluations** for group work. These interventions were chosen based on their potential to incentivize active participation and collaboration among students. The effectiveness of these interventions was assessed in comparison to students' engagement levels in other courses, providing valuable insights into strategies for enhancing engagement in challenging academic contexts.

MOTIVATION

Since the time I was a student, I have always felt that **traditional grading fails to properly reward** students for critical qualities such as students' **work ethic, effort, and teamwork** skills which are integral forms of engagement and very **essential for success beyond the classroom**. In doing so, it **overlooks the varied backgrounds and abilities** of students, **missing opportunities to ensure success regardless of initial advantages**, and **undermines the creation of an inclusive and supportive learning atmosphere**. This prompted me to explore alternative methods aimed at a **more equitable and supportive evaluation**, specifically focusing on approaches that **incentivize and acknowledge student engagement**. The specific interventions discussed here were inspired by discussions and support from colleagues at OPID, which enabled me to refine these concepts and incorporate them into SOTL research.

METHODOLOGY

Participants

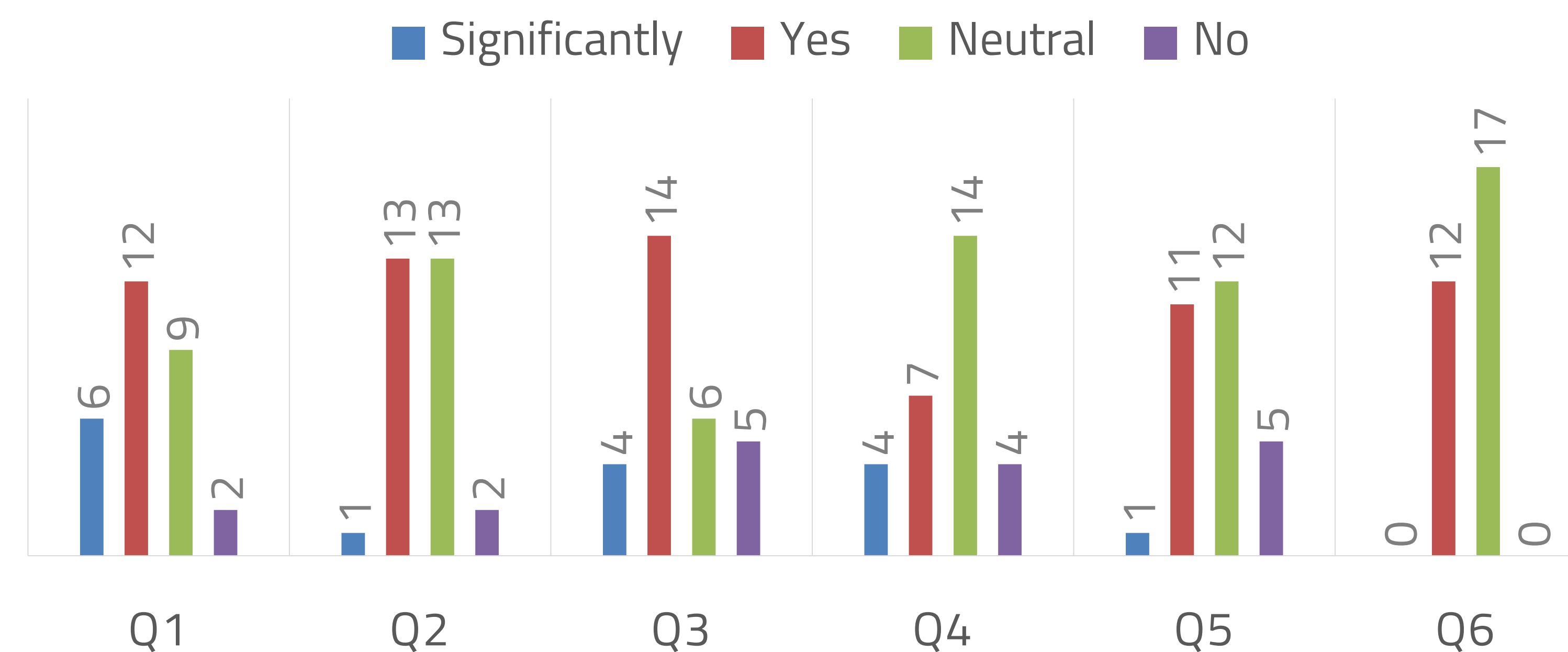
29 students in a traditional classroom setting

Procedure

At the start of the semester, students are provided with rubrics for both peer evaluation and bonus points for participation and effort, each on a 3-point scale. At the end of the semester, **students self-assess their own and their peers' performance using these rubrics**. While some sections of the rubrics were created anew, others were adapted from pre-existing ones to suit the context.

RESULTS

STUDENT RESPONSES TO SURVEY



Q1	Did the graded peer evaluations influence your motivation to actively engage with your group ?
Q2	Did bonus points influence your motivation to actively engage in class discussions and assignments ?
Q3	Did bonus points encourage you to seek help or clarification when you encounter difficulties ?
Q4	Did the bonus points positively affect your learning in the course material ?
Q5	Did the bonus points help alleviate some of the anxiety associated with grades?
Q6	Has your academic performance in the class improved due to the introduction of the bonus points?

GRADING RUBRICS

Group Work Peer Evaluation Rubric		Individual Work Bonus Point Assessment Rubric		
	Excellent (2 points)	Excellent (2 points)	Good (1 point)	Satisfactory/Needs Improvement (0 points)
Communication	Always effectively communicated ideas and actively and respectfully listened to others.	Office hours attended (5+).	Office hours attended (2 - 4).	Office hours attended (0-2).
Collaboration	Worked well with all group members to achieve common goals.	Actively participates in class discussions and asks thoughtful questions.	Occasionally participates in class discussions and asks thoughtful questions.	Rarely participates in class discussions and contributions are minimal or lack depth.
Reliability	Consistently fulfilled responsibilities, met deadlines, and could be relied upon to contribute to the project's progress.	Can self-replicate all the work on all the assignments.	Can self-replicate most work on all the assignments.	Can self-replicate only some of the work on all the assignments.
Contribution to goals	Consistently contributed to group goals and achieve project's success.	I worked extremely hard for this class. I worked through assignments even when things got challenging. I actively sought clarifications and guidance from my professor and peers when I got stuck.	I worked relatively hard for this class. I mostly worked through assignments even when things got challenging. I often sought clarifications and guidance from my professor and peers when I got stuck.	I put in some effort in the class, however not as much as I should have. I occasionally worked through challenges in assignments. I rarely sought clarifications and guidance from my professor and peers when I got stuck.
		Pre-requisite knowledge		
		The pre-requisite math knowledge caused me to lose points on 3+ assignments.	The pre-requisite math knowledge caused me to lose points on 1 - 2 assignments.	The pre-requisite math knowledge did not cause me to lose points on any of the assignments.

STUDENT COMMENTS

"Incentivizes introverted people to attempt to be more extroverted. Being introverted myself it showed what things I need to work on like asking the professor for help when needed."

"Yes, it **pushed me to get work done earlier** so I could ask questions if I had any issues."

"Relieved grading anxiety and **made me feel more accomplished** at the end of the course"

"Strongest influence when it comes to group work. If you are not participating, they can review you negatively."

"Felt the need to be able to **explain my work rather than just answering questions.**"

CONCLUSION

Graded peer evaluations serve as a **motivational tool** for many students and improve student engagement.

Offering bonus points for effort and participation **motivate many students to seek help and to engage more** with the course material both inside and outside the classroom.

Bonus points for effort and participation **improve learning and academic performance** for many students and helps **reduce anxiety** associated with grades.

FUTURE WORK

In the future, I plan to further refine the grading rubrics based on insights gained from this study and implement them in upcoming semesters.

REFERENCES

Tinto, Vincent. "Enhancing student success: Taking the classroom success seriously." Student Success 3.1 (2012)
Hu, S., Kuh, G.D. Being (Dis)Engaged in Educationally Purposeful Activities: The Influences of Student and Institutional Characteristics. Research in Higher Education 43, 555–575 (2002).

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