

Creating Positive Interdependence within Student Study Teams to Promote Reciprocal Teaching and Learning

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Making Group Work Work!

- Group Work and the “Free Rider” Problem
- The Need to Create “Positive Interdependence”
 1. Each student’s success must depend on their team’s success
 2. Each student’s performance must affect their team’s success
 3. Students must collaborate with each other to succeed

Example: **The Exam Bowl!**

Study Team Exam Challenge #1

- Teams with the highest lowest team member score earn a grade bonus for each team member.
 - For example, for a team of 4 students with grades {70, 80, 90, 90}, the lowest team member score would = 70
 - Positive interdependence -> Incentives to teach and learn from each other
 - Effective DFW Reduction Strategy?

Exam Challenge #1: Did It Work?

- **Yes?** - Participating students out-performed the non-participating students.
 - **No?** – Selection Bias?
 - **No?** - Students in a “control class” performed almost as well as the participating students in the “challenge class”.
- **Yes?** - **Anonymous Survey Results:** Participating students unanimously indicated that they enjoyed working with their teammates, learned from the experience, and would like to try another challenge.

Study Team Exam Challenge #2

- Teams where each team member earns at least as high grade on Exam #2 as they earned on Exam #1, earn a grade bonus for each team member.
 - Focuses on and incentivizes *improvement*
 - Positive interdependence -> Incentives to teach and learn from each other
 - Effective DFW Reduction Strategy?

Exam Challenge #2: Did It Work?

- Yes?
 - In the “challenge class”, **11** students scored higher and **5** students scored lower on Exam II.
 - In the “control class”, **4** students scored higher and **11** students scored lower on Exam II.

Conclusions

- “Exam Challenges” can be used to incentivize students to teach and support each other. Such Challenges appear to promote student interest and learning and may reduce DFW rates.
- Much more data are required to draw *conclusions* regarding the academic effectiveness of Exam Challenges.
- Students *enjoy* working together on “Challenges” and at least *perceive* that they learn from doing so.