**Effects of an Early Homework Completion Bonus**

Research Initiation Grant: Increasing Student Engagement in Homework

**CONCLUSIONS**

- **Bonus program far exceeded expectations**
  - Initial goal was modest: have students at least look at homework
  - Over half of homework being completed in bonus time
- **Positive effects**
  - Encourages students to figure things out for themselves
  - Discourages procrastination

Results of Mid-Semester Student Survey

Do you feel having a bonus for early homework completion has affected your learning, and if so how?

- **Response rate:** 343/403 = 85%
- **Stated or implied yes:** 82.5%

- **Identified specific learning contributions:**
  - Better preparation for lectures
  - Improved practice at self-guided learning
  - Reinforcement of understanding

- **Word Usage:**
  - **Motivation**: 21%
  - **Incentives**: 16%
  - **Points**: 10%

Nine students explicitly identified discovering their ability to learn and solve problems on their own as a benefit of the early homework bonus.

- **Few seemed to imply that potential grade boost was a primary motivating factor**
- **Larger number indicated bonus reduced stress about grades and the pressure to “get the right answer” on the first attempt**

Homework Completion By Exam Scores

- **Percent HW completed**
  - >80
  - 60-79
  - 40-59
  - 20-39
  - 0-19

- **Exam Grade Percentile**
  - 110
  - 100
  - p75
  - 75
  - 50
  - 30.4%
  - 60.0%
  - 4.7%
  - 3.4%

- **Early bonus (more than 1 day before)**
- **Full Credit (1 day before)**
- **Late, 2 days, Prorated (p75)**
- **Late, Before Exam**
- **After Exam**

Homework Credit vs. Time (One Problem)

- **Early bonus**
- **Full Credit**
- **Late, 2 days, Prorated (p75)**
- **Late, Before Exam**

Homework Efficiency

- **Exam Grade Percentile**
  - >80
  - 60-79
  - 40-59
  - 20-39
  - 0-19

- **Correct Answers / Tries (%)**
  - 110
  - 100
  - p75
  - 75
  - 50

Effects of Bonus on Homework Averages

- **Homework Average**
  - >80
  - 60-79
  - 40-59
  - 20-39
  - 0-19

Number and Timing of Discussion Board Posts

- **Before Bonus**
- **After Bonus**

- **Due Date**
- **Bonus Date**

- **Staff**
- **Students**

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**Homework Completion Times**

- 10% of homework completed late
- 60.0% completed during bonus time
- 4.7%
- 3.4%
- 1.5%

**Word Usage**

- **Motivation**: 21%
- **Incentives**: 16%
- **Points**: 10%