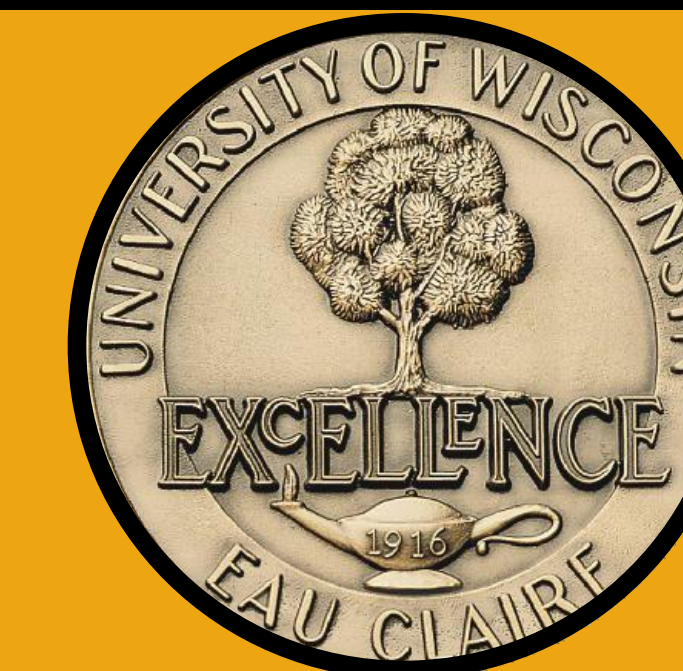


Schedule Induced Procrastination In College Students

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Introduction

• Critchfield, Haley, Sabo, Colbert, and Macropoulis (2003) reported on the pattern of bill production in the United States Congress between 1971 and 2000, and found that:

- The cumulative bill production of the U.S. Congress produces a positively accelerated curve which resembles a fixed-interval (FI) schedule of reinforcement.
- The degree of curvature in the FI scallop was negatively associated with interval duration. Such that, when there were fewer days in the congressional year the curvature was steeper.
- The degree of positive acceleration was positively associated with reinforcer magnitude. Such that, when the forthcoming recess was longer the curvature was steeper.
 - Taken together, Critchfield et al. appears to be a real world demonstration of the fixed-interval schedule of reinforcement at the group level.
- The current study uses an analytic approach similar to that of Critchfield et al., but applied to the completion of college students' assignments, to find if:
 - The cumulative completion of chapter quiz assignments, which occur twice a week, would produce a positively accelerated curve.
 - A student's position on the curve would predict the students overall course grade.

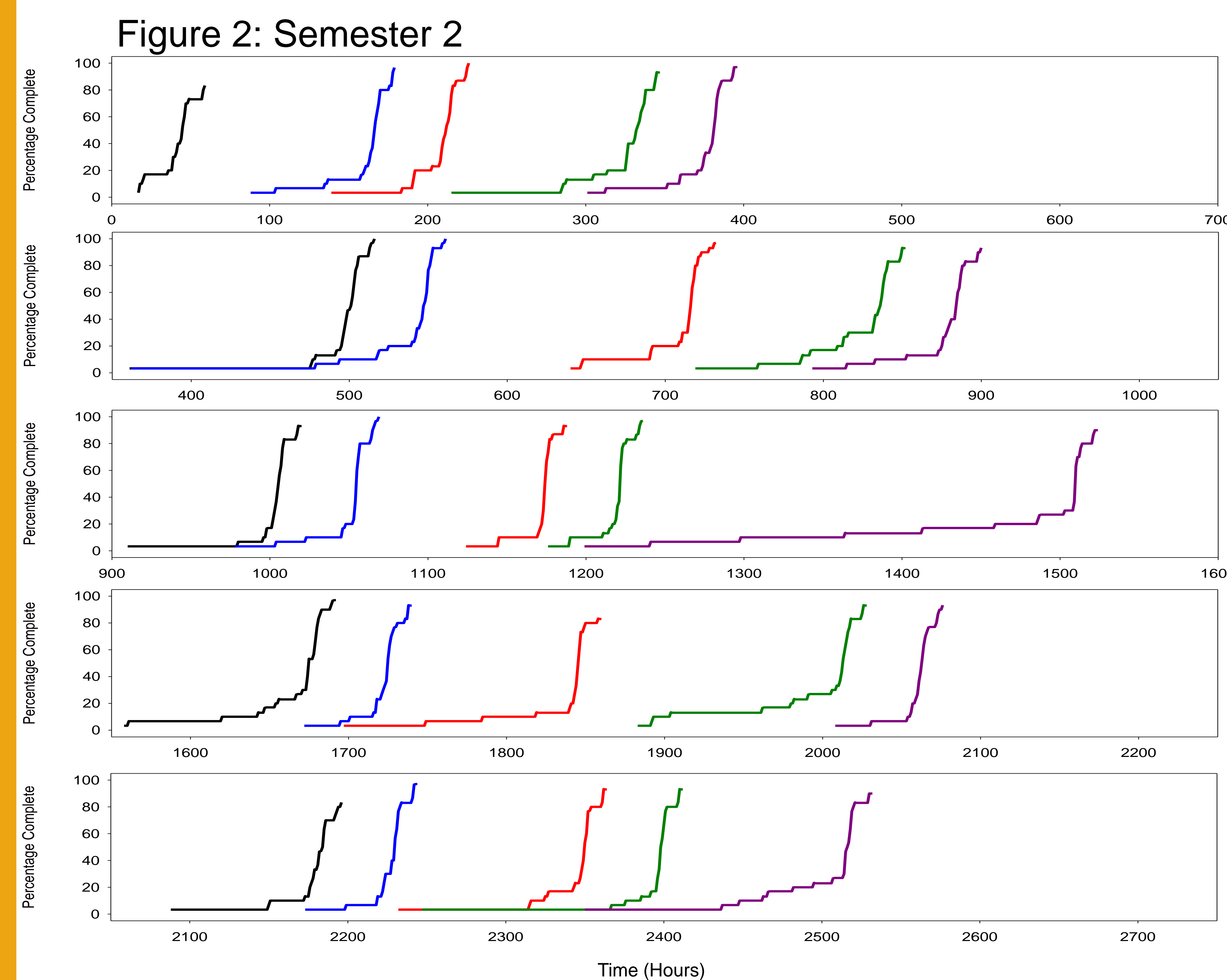
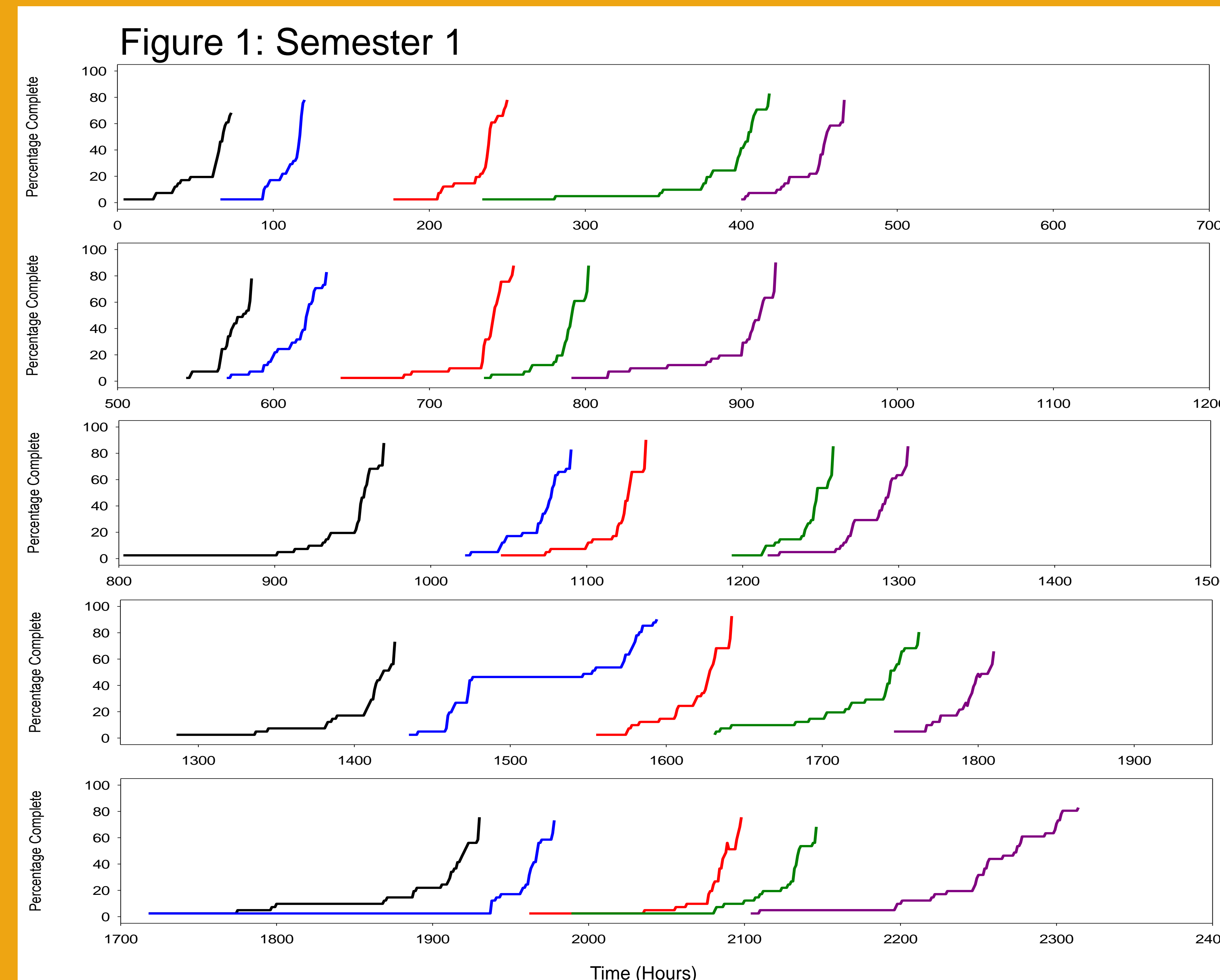
Method

- College students in a 200 level course were required to complete 25 chapter quizzes online over the course of a 15 week semester.
- Students were required to take each chapter quiz until they scored at least 90% or until they had completed three versions of the quiz, which ever happened first.
- The scores, completion dates, and times for the online quizzes are stored on an online database.
- Archived data from two consecutive semesters (total of 71 students) were used in the present analysis.
 - Data collected for this project include:
 - The due date for the assignment (for all 25 assignments).
 - The date the student completed the assignment (for all 25 assignments).
 - The student's final course grade.
 - The length of time between the last assignment and the next due date.
- We plotted the cumulative percentage of assignments completed as a function of time (in hours).
- We ran a correlation in order to see if each students relative position on the cumulative plot would be predictive of the student's final grade in the course.

Results / Discussion

- Our results demonstrate that the pattern of student assignment completion resembles a positively accelerated curve that is characteristic of a fixed-interval schedule of reinforcement.
- We found no relationship between student completion time relative to the due date and their final course grade ($r = 0.099$).
- The current study is different from the Critchfield method because in this case the cumulative record is the result of students completing assignments independently.

Results



Figures 1 and 2 show the cumulative percentage of students who completed the online quiz as a function of time (in hours). The colored lines represent different quizzes across the semester.

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