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Teaching Internship

March 13, 2018

Topic: **How can I incentivize my students to turn their work in on time?**

Annotation 1

Cullen, Francis T., et al. "The Effects of the Use of Grades as an Incentive." *The Journal of Educational Research*, vol. 68, no. 7, 1975, pp. 277–279. *JSTOR*, JSTOR, www.jstor.org/stable/27536752.

Purpose of Study	"With grades as the only incentive employed and the percent age of students completing assignments as the dependent variable, an attempt was made to test four hypotheses: (a) grades used as either a positive or a negative incentive secure greater assignment completion than when no incentive is offered, (b) grades used as a negative incentive elicit greater assignment completion than when used as a positive incentive, (c) when grades are used as a negative incentive, the greater the level or intensity of the incentive, the greater is assignment completion, and (d) when grades are used as a positive incentive, the greater the level of incentive, the greater is assignment completion" (Cullen et al 277)
Research Question	Can grades be used to incentivize students?
Participants	"The Ss were 233 students from three suburban, middle class high schools. They were divided into ten freshman health classes from school A (class sizes 7, 8, 9, 10, 13, 16, 18, 18, 19, and 21), three junior psychology classes from school B (sizes 22, 23, and 27), and one freshman English class from school C (size 22). Within each school, a single instructor taught all of the classes tested" (Cullen et al 277)
Method/Collection	"Previous research has only tangentially explored the effects of an incentive frequently employed by teachers-grades. To fill this void, 233 students from 14 high school classes were either offered points (ranging from 2 to 12) on their final grade of the term for completing an assignment or threatened with loss of points (ranging from 1 to 7) for not completing an assignment. A control class was asked to complete the assignment without gaining or forfeiting any points. Data suggested that grades used as an incentive elicited greater assignment completion than when no incentive was used, that assignment completion was greater when grades were used as a negative as opposed to a positive incentive, and that as the level of incentive utilized rose, assignment completion tended to increase" (Cullen et al. 1)
Findings	"Several factors were thought to have had a possible effect on the results: the presence of the experimenter, parents, study habits, whether or not the Ss liked the class, other students, the occurrence of special events (e.g. a party or sports event),

	the teacher, and clarity of instructions. However, check questions indicated that none of these appeared to affect the percentage of assignment completed in any experimental condition. In the major results, the hypothesis that grades used as either a positive or a negative incentive secures greater assignment completion than when incentive is offered was supported" (Cullen et al 278)
Conclusion	In conclusion, it seems necessary to emphasize that there are a whole range of variables potentially influencing the effectiveness of grades as an incentive that were neither controlled for in this study nor examined in the discussion section. Some possible factors? Each of which most likely interacts with one or more of the other factors? Include: personality, sex, age, intelligence, achievement motivation, socioeconomic status, family value system, student's status and role in his peer group, year in school, structure of the classroom (e.g. open vs. traditional), the ability level of the class and/or school, the time in the semester and/or year when the points are offered or threatened to be taken away, the type of grading system used (e.g. numerical average vs. hierarchical divisions), the frequency with which the teacher utilizes grades as a positive as opposed to a negative incentive, and the difficulty of the assignment. Before more definitive conclusions can be drawn about the nature of the use of grades as an incentive, it appears that these and perhaps other relevant variables will have to be explored (Cullens et al 279)
My Notes	• This article focuses on using grades as a way to incentivize students in the classroom. While I would prefer to not use grades as motivation, there do seem to be benefits to using them to incentivize students. • **<u>The participants are from middle class schools.</u>** • I believe the data would show very different results if the study was conducted on lower or higher classed schools. • Where there is wealth, there will be a difference in motivation.

Annotation 2

Raham, Helen. "Cooperative Performance Incentive Plans." *Peabody Journal of Education*, vol. 75, no. 4, 2000, pp. 142–158. *JSTOR*, JSTOR, www.jstor.org/stable/1493056.

Purpose of Study	This article surveys what is known about Cooperative Performance Incentive (CPI) Plans. It describes and compares existing models, analyzes their impacts on student learning and school practices, and suggests the policy lessons learned and areas for further research" (Raham 142)
Research Question	"Can school performance awards benefit our schools and students?" (Raham 142)
Participants	Students from North Carolina and Texas
Method/Collection	"Eight years of annual assessment and school-based rewards and sanctions in

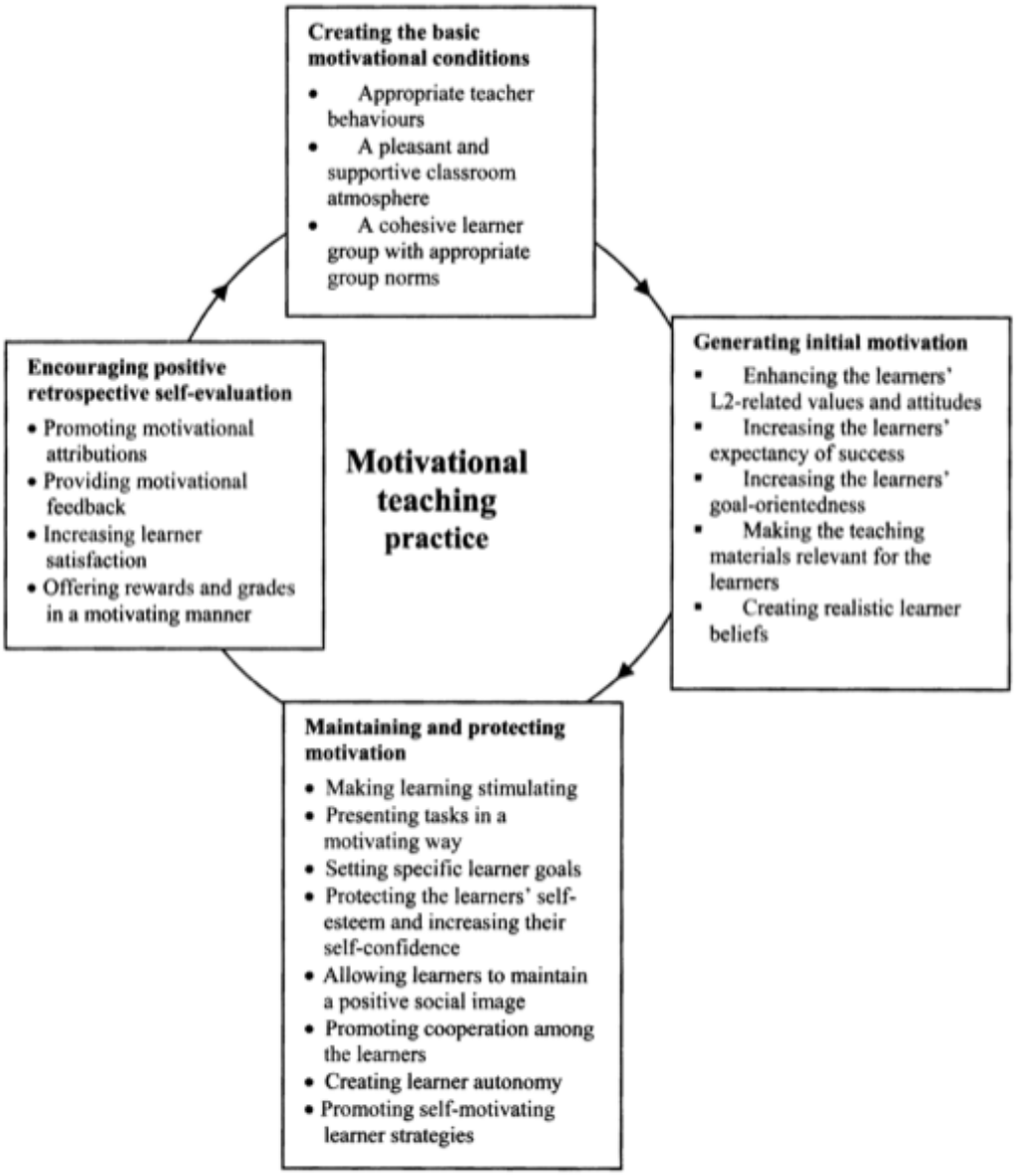
	Texas and North Carolina have produced steadily rising achievement gains. In 1994, barely half of Texas students passed the TAAS math exam. In 1998 that figure had risen to 80%, and the number of Black and Hispanic children who passed the test doubled to 64% and 72%, respectively. The number of schools receiving the Exemplary award rose from 67 in 1994 to 683 in 1998 (Palmaffy, 1998, p. 29). North Carolina students on average score 8 or 9 percentile points higher on math and reading than their counterparts in 1992-1993. This progress is corroborated by student gains well above the national average on the National Assessments of Educational Progress (NAEP) (Raham 152)
Findings	"We now have working examples producing positive results in a growing number of schools. However, to reach a meaningful threshold of teacher involvement and the maximum impact on student outcomes, CPI plans must be crafted to reach the vast range of schools functioning in the middle. Cur- rent programs are weighted toward rewarding high-performance schools and identifying and improving low-performing schools. As such, they may be limiting the results potentially achievable by the vast majority of schools. Once a state identifies a range of schools that remain static, alternative policies should be found to also enhance their capacity to progress. CPI plans have captured teacher attention. Further research is needed into a number of elements to refine them further. What is the ideal balance between fairness and complexity in school evaluations for awards? What is the optimum size of the bonus? To achieve greater teacher involvement, will CPI plans require significantly increased funding? How can states protect the stability of these plans to ensure high levels of teacher confidence? Can the expectation of "continuous progress" be sustained as a long-term goal? What is the role of the sanctions accompanying most plans, and is reducing negative outcomes a desirable feature? What are the best mechanisms for building school capacity for growth" (Raham 157)
Conclusion	"CPI systems are a part of the new accountability landscape for schools. Carefully designed plans that are perceived to be meaningful, fair, and stable are "associated with improved student achievement when adequate capacity to improve instruction is present" (Fuhrman, 1999, p. 10). In addition, teachers generally find the new systems motivating (p. 7). However, CPI plans are insufficient in themselves to raise student achievement, and continuing re- search is needed to provide further information about their most effective use" (Raham 157)
My Notes	• This study specifically looks at motivating students with performance rewards. • These acts of performance may be due to grades or classroom motivation. • Since not every student will get straight A's, this seems to be a good system to give every type of student the opportunity to feel successful.

Guilloteaux, Marie J., and Zoltán Dörnyei. "Motivating Language Learners: A Classroom-Oriented Investigation of the Effects of Motivational Strategies on Student Motivation." *TESOL Quarterly*, vol. 42, no. 1, 2008, pp. 55–77. *JSTOR*, JSTOR, www.jstor.org/stable/40264425.

Purpose of Study	To study the effects of motivational strategies on student motivation.
Research Question	"In the current study, we set out to examine empirically how a teacher's motivational teaching practice affects his or her students' motivated learning behavior, as manifested by the amount of attention the students pay in class and the extent of their participation and volunteering in tasks. When we designed the study, we realized that the standard data gathering technique of L2 motivation research - namely, the administration of questionnaires - would not be sufficient to assess this process. We therefore decided to carry out a large-scale classroom observation study with a motivational focus, with the intention of producing generalizable results and of obtaining varied and rich quantitative data concerning both the teacher and the students. To this effect, we designed a highly structured observation scheme following the model of Spada and Frôhlich's (1995) COLT. We supplemented this instrument with a student questionnaire and a teacher appraisal form" (Guilloteaux & Dörnyei 51) "1. How does the teacher's motivational teaching practice affect the students' classroom motivation in terms of the level of their attention, participation, and volunteering? 2. What is the relationship between the students' self-reported motivation (assessed by questionnaire), their actual classroom behavior, and the teacher's classroom practice?" (Guilloteaux & Dörnyei 60)
Participants	"40 learner groups in our study, with a student population of more than 1,300. It followed from such a design that, instead of focusing on the impact of specific strategies used by specific teachers, which would have required a more intensive and preferably longitudinal investigation, we focused on examining the quality of the teachers' overall motivational teaching practice by generating a composite index of the rich observational data" (Guilloteaux & Dörnyei 51) "After receiving their principals' permission, 27 language teachers (4 male and 23 female) agreed to take part in the main study. They presented a suitable variety: Their ages ranged from 23-44 (M = 31.65) and their teaching experience ranged from 1-20 years (M = 8.32). All teacher-participants were asked to evaluate their own level of proficiency in English: None of them rated themselves as fluent, 30% judged them- selves to be advanced, 40% higher intermediate, and 30% lower intermediate. Because of the considerable wash back effect of the university entrance examination (i.e., teaching to the test) in Korea, we excluded high school classes from our sample in favor of junior high classes, and among the junior high students, we preferred Year 1 and Year 2 learner groups (12-13 and 13-14 year olds) to Year 3 students (14-15 year olds) when- ever possible. The final student sample involved 1,381 students in 40 classes; 46% of the sample was from Year 1, 46% from Year 2, and 8% from Year 3. The participating students were 60% boys and 40% girls.1 All of them were South Koreans and spoke Korean as their

	first language" (Guilloteaux & Dörnyei 51)
Method/Collection	"To obtain a valid and reliable picture of the motivational characteristics of the sample, we used three different types of instrument: (a) a classroom observation scheme, (b) a student questionnaire, and (c) a post lesson teacher evaluation scale. All three instruments were developed for this study. Each instrument underwent extensive piloting, which is described in the Procedures section" (Guilloteaux & Dörnyei 61)
Findings	"Classroom motivation research is ultimately about one key issue, analyzing the determinants of the learners' motivated behavior, which then leads to learning outcomes. In our study, we addressed two factors that were theoretically expected to have a bearing on the student's motivated classroom behavior: (a) the self-report index of their course-related motivation, which was measured by the questionnaire, and (b) the teacher's motivational influence, which was measured by the composite teacher instructional behavior factor. In analyzing student motivation in specific language tasks, Dôrnyei (2002) argued that both situation-specific and more general motives contribute to task motivation, but that the more situated a measure is, the more directly it will be linked to a particular motivated behavior. Therefore, within our research paradigm, we expected the teacher's motivational practice to have the stronger association with the students' motivated behavior. The correlation coefficients confirmed this prediction: As Table 3 shows, the teacher's motivational practice has a highly significant positive correlation with the learners' motivated behavior, with a coefficient exceeding 0.6 and explaining 37% of the variance in the students' motivated learning behavior measure. L2 motivation studies typically detect meaningful correlations within the 0.3-0.5 rang" (Guilloteaux & Dörnyei 69)
Conclusion	"This study examined how the teacher's motivational teaching practice affected student motivation as manifested in the students' classroom behavior. The primary research approach involved gathering structured classroom observation data. The inclusion of this type of data is a novel element in motivational studies, where past investigations have relied almost solely on survey research rather than objective observational data. The significant positive correlations we found between the teacher and student measures are particularly strong within the context of L2 motivation research, thereby providing powerful evidence that the teach- er's motivational practice does matter……This finding is important because so far the literature has not reported any empirical evidence concerning the concrete, classroom-specific impact of language teachers' motivational strategies. Although our study looked at the teachers' motivational teaching practice as a whole without focusing on specific individual strategies, the results are so robust that they warrant further research in more narrowly defined strategy domains" (Guilloteaux & Dörnyei 72)
My Notes	• While this study was conducted in 2008, the findings are still very relevant for our society today. • I will be citing this study specifically for their date collection on student's self claimed motivation as compared to how they perform in the classroom. • I think students may sometimes not know when they are truly motivated which could ruin the data collection process, but this study finds ways around that. • I particularly enjoyed their Figure 1 model, shown below.

FIGURE 1
The Components of a Motivational L2 Teaching Practice



Annotation 4

Bowman, Richard F. "How Can Students Be Motivated: A Misplaced Question?" *The Clearing House*, vol. 81, no. 2, 2007, pp. 81–86. *JSTOR*, JSTOR, www.jstor.org/stable/30189961.

Purpose of Study	Not sure If I want to use this study…
Research Question	The question is not "how can students be motivated?" but rather, "how can educators be deterred from diminishing-even destroying-student motivation and morale through their policies and practices?
Participants	Not sure If I want to use this study…
Method/Collection	Not sure If I want to use this study…
Findings	Not sure If I want to use this study…
Conclusion	Not sure If I want to use this study…
My Notes	This study is more about whether or not motivation is good for the students. I do not yet know if I will be using this information. I will save the study here for later.

Annotation 5

Emmett, Joshua, and Dean McGee. "Extrinsic Motivation for Large-Scale Assessments: A Case Study of a Student Achievement Program at One Urban High School." *The High School Journal*, vol. 96, no. 2, 2012, pp. 116–137. *JSTOR*, JSTOR, www.jstor.org/stable/23351965.

Purpose of Study	"The purpose of this case study was to discover the critical attributes of a student achievement program, known as "Think Gold," implemented at one urban comprehensive high school as part of the improvement" (Emmett & McGee 116)
Research Question	"What were the critical attributes of the "Think Gold" program that influenced changes in student attitudes and behaviors toward state assessments and contributed to improved student achievement at Lincoln High" (Emmett & McGee 122).
Participants	"Selection of the site for the case study reflected purposeful sampling. Patton (1990) asserts, "the logic and power of purposeful sampling lies in selecting information rich cases for study in depth" (p. 169). The case under study presented a unique sample as it served as one site within a large district of 18 comprehensive high schools (serving only grades 9-12) that had implemented a distinct school improvement strategy utilizing extrinsic motivation. Officials at

	the school had implemented the strategy for two years when the research was conducted, providing an element of time to further bound the case. As a unique sample, this single school site allowed the researchers to gather rich descriptive data on the phenomenon under study. Therefore, a case study would allow for rich descriptive analysis in response to the research question (Merriam, 1998). Lincoln High School is a large, urban comprehensive high school within one of the largest high school districts in California. Demographics and achievement data will be detailed within the narrative of the case" (Emmett & McGee 123).
Method/Collection	"The research began in the spring of 2011 and continued into the fall of 2011. Interviews with adults and students were conducted in the spring of 2011. School officials administered the student survey in both the spring of 2010 and 2011, after students had completed the state assessments, to query their response to "Think Gold." Student responses from both administrations of the survey were provided to the principal researcher in the summer of 2011. Achievement data from spring 2009 served as baseline data (prior to implementation of the "Think Gold" program in fall 2009). Preliminary analysis of school-level student achievement on state assessments from 2009 and 2010 was conducted at the outset of the research in the spring of 2011, which provided context for the initial inquiry for stakeholder interviews. When student achievement from large-scale state assessments for 2011was available in the fall of 2011, a complete analysis was conducted comparing school-level student achievement from 2009 to 2011. Key informants participated in a focus group member check in the fall of 2011, helping to ensure trustworthiness in the presentation of the case" (Emmett & McGee 123).
Findings	"The findings of this case emerged from the analysis of data in response to the research question. The theoretical framework for the study guided analysis. The findings are presented in the form of the three critical attributes identified in the "Think Gold" program. Details are also provided for the rates of improvement in student achievement from 2009 to 2011 with reflection upon the influence of the program on these changes. Critical Attributes The findings revealed that the "Think Gold" program demonstrated a number of attributes that contributed to improved student achievement at Lincoln High School. The attributes that as supporting the feasibility of the program were: the differentiated system to recognize students at ranging levels of achievement, the relative sustainability of the recognition efforts with limited impact on otherwise tight budget constraints, and the establishment" (Emmett & McGee 130).
Conclusion	"If the use of extrinsic motivation establishes a connection for high school students between their individual decisions toward state assessments and the outcomes of their performance, then perhaps this element can inform the discussion of improving student achievement. The findings of this single case study do not provide a "magic elixir" or school improvement model for high schools. However, what is learned from this case study may inform other schools similarly situated and those encountering obstacles to improvement. The impact of the use of extrinsic motivation may contribute to the discussion of transforming school culture toward academic achievement" (Emmett & McGee 135).
My Notes	"Think Gold" is a motivational strategy that utilized extrinsic motivation to influence change in student attitudes and behaviors toward state assessments. The program contained three levels of recognition • Level 1: "Proficient" or "Advanced" on 2 or more state

	assessments. • Level 2: Improvement of 2 or more performance bands on all combined state assessments. • Level 3: Proficiency on school-based assessments throughout the year. I don't think that the strategy is particularly good, but the evidence is spectacular. None of the other studies that I have researched have been able to test motivation on such a large scale.

Annotation 6

Tuckman, Bruce W. "Using Tests as an Incentive to Motivate Procrastinators to Study." *The Journal of Experimental Education*, vol. 66, no. 2, 1998, pp. 141–147. *JSTOR*, JSTOR, www.jstor.org/stable/20152552.

Purpose of Study	"The purposes of this study were to compare two approaches for enhancing the recall and understanding of text and to compare the effectiveness of the two approaches for students differing in procrastination tendency. The first approach was to provide incentive motivation by giving a test on each text chapter; the second approach was to provide a learning strategy by requiring students to out line each chapter as a homework assignment. Eighty-two students were classified by level of procrastination based on scores on the Procrastination Scale. Half of the students experienced the test condition; the other half experienced the homework condition. Although the test condition produced significantly higher scores overall on a final achievement examination than the outline condition did, a significant interaction between condition and student procrastination level reflected an almost 12% advantage for the test condition among high procrastinators. There was virtually no difference between conditions for medium and low procrastinators" (Tuckman 141).
Research Question	Can tests be used as an incentive to motivate procrastinators to study?
Participants	"Eighty-two college juniors and seniors, preparing to be teachers, participated in the study. The average age of the students was 21, and two thirds of the group were women" (Tuckman 143).
Method/Collection	"The students were enrolled in two sections of a 6-week, summer educational psychology course required for teacher certification. A comparison of the two classes on age, gender, and self-reports of scores on the combined verbal and mathematics portion of the College Level Academic Skills Test (CLAST), prior semester's GPA, and grade expectation showed them to be equivalent. Correlations between CLAST scores and achievement in this course have been found to be about .5 (Tuckman, 1993). Both sections met twice a week (at the same time of day), covered the same content (learning theories), and used the same textbook. The same instructor taught both courses" (Tuckman 144).
Findings	"I conducted a two-way analysis of variance (ANOVA) on scores on the final achievement test with condition (spot quiz vs. outline) and procrastination score (high, medium, low) as the independent variables. The results of the ANOVA are shown in Table 1, and the means and standard deviations are shown in Table 2. The main effect for condition was significant at the .01 level, with the spot-quiz students outperforming the outline students on the achievement test (76.8% to

	71.7%). The main effect of procrastination was not significant. The interaction of condition and procrastination level was significant at the .05 level. A comparison of means using the least significant difference approach revealed that although TABLE 1 ANOVA of Achievement Test Score, by Condition and Procrastination Level Source df SS MS F Condition 1 527.27 527.27 6.05** Procrastination level 2 63.28 31.64 0.70 Interaction 2 540.50 270.25 3.10* Error 76 6,625.53 87.18 *p< .05. **p< .01). This content downloaded from 132.174.250.14 on Wed, 14 Mar 2018 13:55:21 UTC All use subject to http://about.jstor.org/terms 146 The Journal of Experimental Education low and medium procrastinators differed only slightly on achievement across the two conditions (75.2% to 72.9% in favor of SQ for lows; 75.9% to 74.8% in favor of SQ for mediums), high procrastinators differed significantly in achievement across the two conditions, ?(26) = 3.54, p < .01 (79.2% to 67.3% in favor of SQ). In other words, high procrastinators who took spot quizzes on each chapter obtained significantly higher achievement test scores on the final exam than those who completed outlines on each chapter did. No such advantage based on spot quizzes was found for low procrastinators. Time-log scores for class preparation by the students in the two conditions showed no significant differences. The students in both conditions reported an average of approximately 2 hours of preparation time per week. The relative independence of procrastination, by itself, and achievement was reflected in a correlation of-.0" (Tuckman 145-146).
Conclusion	In the present study, the students who were given spot quizzes on each chap ter outperformed the students who completed chapter outlines on a test of achievement; the difference between the conditions was based primarily on the performance of procrastinators, who profited most from the quizzes. Procrastinators are difficult to motivate and, therefore, are likely to put off school assignments and studying until the last possible moment. They may study for exams but cannot necessarily be counted on to keep up with assigned read ing. As a result, their study burden immediately preceding an exam that covers a number of chapters of assigned reading can be overwhelming. Spot quizzes, as an instructional intervention, motivated procrastinators to study continually over an entire course. They induced students to study on a daily or weekly basis, rather than postponing studying until the middle or end of the course. Moreover, completing homework assignments did not have the same impact on procrastinators as weekly spot quizzes did, despite students' reports that they spent an equivalent amount of time completing assignments as studying for quizzes. For procrastinators, incentive motivation may provide the needed inducement to self-regulate. Regular testing of assigned material appears to be a necessary stimulus for causing timely studying by procrastinators. Current thinking on instruction promotes the reduction of formal course requirements and the use of evaluation strategies other than testing, but teachers may be favoring the more motivated students by following that approach. Procrastinators may have difficulty acquiring new knowledge if steps are not taken to enhance their motivation. Frequent testing, therefore, may be thought of as a motivational "equalizer." Additional research should be undertaken to examine the long-term effects of this approach, especially in regard to transfer" (Tuckman 146).
My Notes	This study was helpful for my research because it allowed me to see the results of using simple tests to motivate students. Based on the results of this study, I do not believe tests will help students to be motivated since students usually procrastinate when studying for a test.

Annotation 7

Reiser, Robert A. "Reducing Student Procrastination in a Personalized System of Instruction Course." *Educational Communication and Technology*, vol. 32, no. 1, 1984, pp. 41–49. *JSTOR*, JSTOR, www.jstor.org/stable/30219867.

Purpose of Study	"This study examined the effects of three pacing procedures on student withdrawal rate, rate of progress, final examination performance, and attitude in a personalized system of instruction course. Undergraduate students (N = 100) who were enrolled in an introductory speech communication course were randomly assigned to either a reward, penalty, or control condition. Those students in the penalty group proceeded through the course at a more rapid pace than students in the control group. There were no significant differences in student withdrawal rate, final examination performance, and attitude. Final examination performance was not affected by the interaction between pacing procedures and student perception of locus of control. The benefits of reducing student procrastination, and appropriate means of doing so, are discussed in light of these results" (Reiser 43).
Research Question	Is there a way to reduce student procrastination with a more personalized system of instruction?
Participants	"The subjects in this study were 100 under graduate students enrolled in a 10-week introductory speech communication course at Florida State University. Of the 51 females and 49 males who participated in the study, 26 were seniors, 42 were juniors, 25 were sophomores, and 7 were freshmen. Forty-four of the students were majoring in communication (Reiser 43)
Method/Collection	"On the first day of class, all the students met in one classroom, and the course instructor provided the students with a brief overview of the course content and procedures. The students were also asked to respond to the Rotter Internal-External Locus of Control Scale, often referred to as the I-E scale (Rotter, 1966). The I-E scale measures individual differences in generalized expectancy for internal versus external control of reinforcement. The higher an individual's score on the scale, the more external the individual. External individuals are those who usually perceive reinforcement as being externally controlled. Internal individuals are those who usually consider reinforcement to be contingent upon their own behavior. On the second day of class, each student was randomly assigned to one of three treatment groups and was asked to go to a smaller room where special instructions were given to the members of that student's group. When they were in the smaller rooms, students in each of the three groups were given a schedule listing the suggested dates for mastering each of the six instructional units in the course. The schedule, which was the same for all three groups, also listed a mandatory deadline for mastering a prerequisite unit on how to use behavioral objectives. Students were required to master the prerequisite unit within a 2-week period (all of the students did so). Suggested deadlines for mastering the six instructional units were spread out evenly over the succeeding 6-week period. Whereas the schedule each group received was the same, the consequences of following the schedule varied across groups. Students in one group, the reward group, and received two additional points for each instructional unit they mastered by the suggested deadlines. Students in a second group, the penalty group, lost two points for each instructional unit they failed to master by the suggested deadlines. Students in the third group, the control group, were neither rewarded for mastering, nor penalized for failing to master, an instructional unit by a suggested deadline. Although each group was told only of the consequences

	applicable to that group, the instructors did not attempt to prevent the students from discussing those consequences with other students in the class. Thus, it is likely that during the course of the semester, many of the students became aware of the conditions under which students in the other groups were working. It is difficult to judge accurately the effects such knowledge may have had on student performance and attitude. In at least one respect, however, the effect seems to have been minimal. Very few students expressed concerns or complaints about the differences in treatment conditions" (Reiser 43-44).
Findings	"Final examination performance was not significantly affected by the two interactions (GPA x treatment group and I-E score x treatment group), $F(4, 71) = .64$, $p > .25$, $R2 = .007$; therefore, the interaction terms were dropped from the regression model. Final examination performance did not differ significantly among the three treatment groups. Mean scores on the final examination were 49.2 (SD = 5.2) for the penalty group, 48.9 (SD = 5.1) for the re ward group, and 48.3 (SD = 5.2) for the control group. While membership in a particular treatment group did not affect final exam performance, grade-point average did. As indicated in Table 2, GPA accounted for a significant portion (19.4%) of the variance in final examination scores, $F(1, 75) = 14.21$, $p < .001$. The other predictor variables score and rate of progress) did not have a significant effect on final exam performance. Attitude: For each of the nine questionnaire items designed to measure student attitude to ward a particular aspect of the course, there were no significant differences in responses across the three treatment groups. Student attitude in each of the groups was generally favorable, with at least 63% of the students in each treatment group responding positively to each item. Response to the item regarding student understanding of course procedures also did not differ across the three treatment groups. Over 86% of the students in each treatment group indicated that they had a clear understanding of course procedures. The number of students indicating they paid close attention to the suggested dead lines for taking unit quizzes did differ significantly among the treatment groups, $X2(8) = 3.02$, $p < .001$. In the penalty group, 77% of the students indicated they paid close attention to deadlines, compared to 50% in the reward group, and 23% in the control group" (Reiser 45-46).
Conclusion	"One difference between the two studies was the emphasis placed on meeting dead lines. In both studies, at the beginning of the semester, students were given copies of a pacing schedule and were informed of the pacing contingencies they would be working under. In the first study, however, there were no systematic attempts during the course of the semester to remind students of the importance of maintaining an adequate pace. In contrast, in the present study, the deadline for passing each unit quiz was posted in large print in the testing and study areas, and, as each deadline passed, the names of those students who were keeping pace were prominently displayed. This simple difference between the two studies most likely was a primary factor in increasing the percentage of deadlines met from approximately 25% in the first study to 43% in the present study Given that this one difference in procedures between the two studies had a pronounced effect on the percentage of dead lines met, it is not unreasonable to speculate that it may have also affected the nature of the interaction between the pacing contingencies and student locus of control scores. As Cronbach and Snow (1977, p. 493) indicate, interactions are "sure to wan der in and out of view" as changes in instructional or experimental conditions occur across studies. Further studies should help to identify how various instructional conditions, such as the emphasis placed upon reminding students of deadlines, affect the interaction between pacing procedures and locus of control. While several research questions

	must still be answered, it seems clear that by modifying the self-pacing feature of PSI courses, student procrastination can be reduced without adversely affecting withdrawal rate, attitudes, or final examination performance. Future research should be directed toward identifying the most appropriate alternatives to the self-paced approach and the conditions under which those alternatives should be employed" (Reiser 47-48).
My Notes	

Annotation 8

Marks, Helen M. "Student Engagement in Instructional Activity: Patterns in the Elementary, Middle, and High School Years." *American Educational Research Journal*, vol. 37, no. 1, 2000, pp. 153–184. *JSTOR*, JSTOR, www.jstor.org/stable/1163475.

Purpose of Study	"Drawing on sometimes overlapping elements from the Bronfenbrenner (1979), Finn (1989, 1993), and Newmann et al. (1992) models, this study proposes to apply elements central to these models to investigate engagement among elementary, middle, and high school students. Specifically, from the Bronfenbrenner model, the study takes the ecological concept of support derived from system linkages. From the model Newmann and col leagues have proposed, the study takes the concept of authentic instructional work (an idea also suggested by Bronfenbrenner). From the Finn model, the study takes the notion of orientation toward school (i.e., previous school experience) as contributing to present engagement (a notion also suggested by Newmann and colleagues) (Marks 159)
Research Question	1) To what extent do personal background and orientation toward school (when personal background is taken into account) contribute to students' engagement 159 in instructional activity? How consistent are the estimated influences on engagement for students in elementary, middle, and high schools? (2) To what extent do school initiatives to improve students' learning (namely, providing authentic instructional work, providing a socially supportive en vironment for learning, involving parents with their children's schooling) counter the influence of personal background and orientation toward school on students' engagement in instructional activity? To what extent are the estimated influences on engagement consistent for students in elementary, middle, and high schools? (3) How influential is the subject matter of the class (mathematics compared with social studies) on students' engagement in instructional activity?" (Marks 159-160)
Participants	"Because the majority of schools have not undertaken the substantial changes theorists have suggested as important to student engagement, a random sample of schools would be inadequate to conduct the study. In addition to providing data to make the constructs proposed by the engagement theorists operational, the ideal sample would need to include students at various stages of schooling in elementary, middle, and high schools. Data meeting both these criteria were collected by the Center on the Organization and Restructuring of Schools during 1991-1994 and used to study school restruc turing in the United States. The Center studied 24 schools (8 elementary, 8 middle, and 8 high schools) selected through a national search for schools that had made substantial progress in restructuring (Berends & King, 1994; Newmann et al., 1996). To investigate engagement in instructional activity, this study concen trates on a portion of the sample, that is, students in Grades 5, 8, and 10 from six core classrooms (three

	mathematics and three social studies) in each of the 24 schools. Participating schools selected the core classrooms in each subject area according to two criteria specified by the Center: "At least one core teacher in each subject area is involved in the school's effort to restruc ture student experiences and ... the three classes reflect the range of student achievement within the grade as a whole (Center for the Organization and Restructuring of Schools, 1992)" (Marks 160)
Method/Collection	For students at all three-grade levels, social support for learning reduces substantially the differential effect of female gender on engagement. Among elementary and middle school students, the forms of social support for learning also account for the effect of prior achievement. Although SES is not a significant factor for the engagement of elementary and high school students in the presence of social support, the effect of social class on engagement persists among middle school students. The social support forms model accounts for 18%, 20%, and 22% of the variance in student engagement among students in elementary, middle, and high schools (Marks 170)
Findings	"Although not refuting the positive influence of generalized restructuring (e.g., organic rather than bureaucratic school organization) on student engagement, this investigation provides support for the importance of intellectual substance and quality in school restructuring initiatives. Within a sample of nationally selected restructuring schools chosen because of significant innovation in student experience and the professional life of teachers, considerable variation exists in student engagement. Specific restructuring con tent (e.g., authentic instructional work and structures of support for learning) proved important in raising student engagement even where generalized restructuring was taking place" (Marks 176)
Conclusion	"For students at all grade levels, orientation toward school affects engagement in the expected directions, that is, successful students are more engaged, alienated students less so. Perceiving class work to be authentic and experiencing forms of social support enhance engagement for all students. These separate models predicting student engagement are evaluated simultaneously in the next section as part of the investigation of the influence of subject matter on engagement. The second research question investigated the efficacy of authentic instructional work and forms of social support for learning (in the school, in the classroom, and through parent involvement) in enhancing engagement for students at all grade levels, net of students' personal background. Authentic instructional work contributes strongly to the engagement of all students. Tapping standards of intellectual quality-higher order thinking, depth of knowledge, substantive conversation, and connectedness to the world beyond the classroom-the salience of authentic work stands in contrast to alienating work, portrayed by Bronfenbrenner (1979, 1986) and Newmann and colleagues (1992) as sources of student disengagement. Although the analysis does not directly compare two forms of student work (alienating vs. Authentic), it does imply that more authentic work brings about greater engagement. The third research question investigated whether the subject matter of the class, mathematics compared to social studies, differentially affects student engagement. The analysis took into account the characteristics of the students in the class, including how authentic they perceived their instructional work to be and the extent of their social support. Mathematics classes promote high levels of engagement among elementary and high school students much more than social studies classes do. However, among middle school students, subject matter makes no difference to their level of engagement" (Marks 188)

Annotation 9

Cooper, Kristy S. "Eliciting Engagement in the High School Classroom: A Mixed-Methods Examination of Teaching Practices." *American Educational Research Journal*, vol. 51, no. 2, 2014, pp. 363–402., www.jstor.org/stable/24546691.

Purpose of Study	"This case study analyzes how and why student engagement differs across 581 classes in one diverse high school. Factor analyses of surveys with 1,132 students suggest three types of engaging teaching practices—connective instruction, academic rigor, and lively teaching. Multilevel regression analyses reveal that connective instruction predicts engagement more than seven times as strongly as academic rigor or lively teaching. Embedded case studies of five classes use interviews and observations to examine how various classes combine connective instruction, academic rigor, and lively teaching and how these practices individually and collectively engage students. Across these analyses, this study introduces a typology for thinking s}« thematically about teaching for engagement" (Cooper 363).
Research Question	How and why student engagement differs across 581 classes in one diverse high school.
Participants	"Participants were 1,132 students in Grades 9 through 12 at Riley High School in Riley, Texas,1 a predominantly blue-collar, one high school town located about 30 minutes outside a major city. Riley's student body repre sents the changing demographics of Texas—integrating the town's historic White community with a growing influx of immigrants from Mexico and families who have relocated from the city. An administrator described Riley as "pretty much a middle of the road high school," containing a socio economically and racially diverse population (44% Latino, 44% White, and 12% Black), doing moderately well on standardized tests, graduating a per centage of students just above the national average, and offering the broad array of courses customary in comprehensive high schools. The 1,132 survey respondents constituted 80% of the school's full enrollment of 1,420 and rep resented the racial demographics of the student body fairly well (36% Latino, 42% White, 10% mixed race, and 9% Black2). The respondents were 53% female and 46% male, which was close to the enrollment of 51% female and 49% male. The 20% of students who did not respond to the survey included two classes whose teachers forgot to administer it, special educa tion students for whom teachers felt the survey was too difficult, and stu dents who opted not to complete the survey. The survey asked students to complete a separate report for each class in which they were enrolled at that time, so each student reported on an aver age of six different classes with a maximum of eight classes, leading to a total of 6,842 reports on individual classes. In total, students reported on 581 clas ses taught by 106 different teachers. Across the 6,842 cases, responses repre sented 11 academic and elective subjects, with the greatest representation covering English classes (in 15% of the cases), social studies (14%), math (13%), science (13%), and visual and performing arts (12%)" (Cooper 370).
Method/Collection	"During one 30-minute advisory in December 2009, teachers administered a previously piloted, paper-and-pencil survey to the students in their advisory. The survey included demographic items (grade level, gender, race, and levels of parents' education) and asked for a separate report on each class in which students were enrolled. Although some research has identified potential threats to validity

	when students report on their perceptions of one class while sitting in another class (Green, Martin, & Marsh, 2007; Marsh, Martin, & Debus, 2001), these threats were weighed against those that would be introduced if teachers were to administer surveys about their own class to their own students and those that would be introduced if researchers were to administer surveys in all 581 classes, which would require an extended period of time. Given these concerns, having all stu dents complete the survey during one sitting in the presence of their advisory teacher (on whom they were not reporting unless they happened to have their advisor for another class) was deemed preferable. The survey sought to address the first research question regarding the main and interactive effects of the three types of practice in predicting engagement. For each class, students reported on the prevalence of 12 teaching practices—6 constituting connective instruction (e.g., "How much do the things you learn in this class relate to your life goals?" "How much do you feel like this teacher cares about you?" "How much do you feel like this teacher knows who you really are?"), 3 for academic rigor (e.g., "How often does this teacher give you challenging work?" "How often does this teacher push you to work hard?"), and 3 for lively teaching (e.g., "How often do you work on projects in this class?" "How often do you work in groups with other students during this class?"). For each class, students also answered five engagement items from a survey of the National Center for School Engagement (2006) (e.g., "How often do you do all of your work in this class?" "How happy are you when you are in this class?" "If you don't understand something in this class, how often do you try to figure it out?"). The mean of a student's responses on these five items formed the classroom engagement composite (a = .76), which was the outcome in the regression models. For each class, students also answered one control item on how well they fit in with their classmates to remove the effect of peer belonging on engagement (Furrer & Skinner, 2003). All items included five Likert-style response anchors resulting in scores ranging from 1 to 5. In completing these reports, students also provided their course schedule (period, class, and teacher), which was then matched against school records to provide control variables for class period, subject, and the academic level of a course (e.g., general education, Advanced Placement" (Cooper 370-371).
Findings	"The present study drew on identity as a rationale for theorizing how and why connective instruction might be particularly critical during adolescence. Despite being motivated by this possibility, the present study did not examine this premise empirically. Future research can more closely examine the role of identity formation in students' classroom experiences with connective instruction and explore whether and how connective instruction practices influence students' identity formation. As a separate issue, the fact that identity formation is the primary develop mental task of adolescence (Erickson, 1968) raises unaddressed questions regarding developmentally appropriate instruction for adolescents. Literature on "developmentally appropriate instruction" often examines early childhood education (e.g., Elliott & Olliff, 2008; Van Horn & Ramey, 2003) or programming for at-risk youth (e.g., Meschke, Peter, & Bartholomae, 2012; Pedlow & Carey, 2004). Yet, the notion of making every day classroom instruction across content areas developmentally appropriate for adolescents through a focus on identity is largely overlooked in research and practice. Even among studies that examine identity in high school, the focus is on how schools and schooling experiences inadvertently shape or are shaped by students' identities (e.g., Davidson, 1996; Lannegrand Willems & Bosma, 2006; Nasir & Hand, 2008; Roeser, Peck, & Nasir, 2006; Yonezawa et al., 2009). The literature does not address how high schools can intentionally capitalize on identity formation as a mechanism for engagement. In this way, while the present study is small and non-generalizable, it does suggest a new arena for research on teaching

	for engagement" (Cooper 397).
Conclusion	"Given the importance of engagement to academic success, increasing engagement can no longer rely on teachers' idiosyncratic teaching styles. With a stronger, more systematic understanding of how various teaching practices link to engagement, educators can begin to more uniformly modify classes for increased engagement. This study takes a step toward such a systematic approach by classifying teaching practices according to their mechanisms for engagement and assessing the engagement potential of various practices. Collectively, these findings support Martin and Dowson's (2009) notion of connective instruction as a valid and promising strategy for increasing engagement. Given the centrality of identity development in how adolescents experience and understand school, it is not surprising that the personal, relational facets of connective instruction were so strongly linked to engagement. Indeed, more attention to practices that enable Cooper students to make personally meaningful connections to classes would be a critical step toward increasing student engagement" (Cooper 397-398)

Annotation 10

Van Calster, Kris, et al. "Affective Attitude toward the Personal Future: Impact on Motivation in High School Boys." *The American Journal of Psychology*, vol. 100, no. 1, 1987, pp. 1–13. *JSTOR*, JSTOR, www.jstor.org/stable/1422639.

Purpose of Study	"To study the motivational significance of the affective attitude toward the personal future, we translated this concept in terms of the expectancy-value models in motivational psychology. We used it as a substitute for the algebraic sum of the valence of all more or less important or personally relevant motivational goals in the future. The hypotheses therefore predict an interaction effect of this time concept and the perceived instrumental value of performing well in high school for success in future life on the motivation to study and on exam scores. The results confirm the hypotheses. A positive attitude toward the future combined with a high perceived instrumentality gives the highest motivation to study and the best academic performances. When the attitude is high and the perceived instrumental value is low, motivation to study and school results are very low. The educational practice of motivating students by explaining the future importance of their present school work and school results will have the best effects when students have a positive affective attitude toward their personal future" (Van Calster 1).
Research Question	How can we motivate male students in High School?
Participants	"Subjects were 230 Dutch-speaking male senior high school students (17 to 19 years old). The group was composed of 12 all-male classes of 12 to 33 students" (Van Calster 5).
Method/Collection	"The Study Orientation Test (SOT) and the Davis Reading Test (DRT) were administered in a first session. The original SOT (Gellynck, 1969) measured nine aspects of study habits, study motivation, and study methods. Van Calster and De Volder (1978) factor analyzed (orthogonal varimax) the 108 questions on a group of 437 high school seniors and replicated the factor analysis on a second group of 258 high school seniors. The analyses yielded three factors: (a) study motivation ("I never spend time studying during the weekends; I am working hard, even for

	boring courses"), (b) capability to concentrate ("I am easily distracted during my study work"); and (c) what may be referred to as "reactions to prior achievements" ("My achievements were often worse than I expected during examinations"). A comparison of the two factor analyses gave coefficients of congruity of .97, .96, and .93 for Factors 1, 2, and 3, respectively. The factor solutions are hence highly equivalent. The internal consistency of the factor scale "study motivation" (SOT-M) is .91 (KR-20). Its correlation with academic achievement varies between .38 and .63 (for different study programs and/or institutions, $p < .01$). In the present study we use the SOT-M scale as a measure of study motivation. The DRT measures the intellectual ability of high school seniors. We use it to control for differential effects of intellectual ability on academic performance and to determine under- and overachievement. The Dutch version of this test (Dudal, 1968) has an internal consistency of .82 (KR-20) and a mean correlation (per class) with school performance of .30. This mean correlation was .34 for our sample" (Van Calster 5).
Findings	"Of the 38 underachievers, 29 belong to the low perceived instrumentality group, and 22 of the 34 overachievers belong to the high perceived instrumentality group, $X2(1) = 10.70$, $p < .01$. There is no significant relationship between the affective attitude toward the future (high-medium-low) and over- versus underachievement x2(2) 2.98. However, the main effect of perceived instrumentality now becomes less important because of a significant interaction of perceived instrumentality and affective attitude. In the high-perceived instrumentality group, 10 of 22 overachievers had a high positive affective attitude and 11 of 22 a medium attitude. Only one overachiever in the high PI group scored low for attitude. But two thirds of the underachievers (6 of 9) with a high perceived instrumentality had a low attitude toward their future, $x2(2) = 14.30$, $p < .001$. In the low perceived instrumentality group, however, none of the 12 overachievers had a high attitude toward the future, 7 had a medium, and 5 a negative attitude. In this group, only 6 of 29 underachievers had a negative attitude, 12 had a medium, and 11 had a high positive attitude toward the future, $X2(2) = 6.47$, $p < .05$" (Van Calster 9).
Conclusion	"The interaction effects of the perceived instrumentality of school results for success in future life and the affective attitude toward the personal future on study motivation and academic performance validate our interpretation of the affective attitude toward the future in the context of the expectancy-instrumentality-value model in motivational psychology. This interaction can, of course, be understood in two ways. The first interpretation states that the motivational impact of the affective attitude toward the future is mediated by the perceived instrumentality of school results for future success. When school results are not seen as important for future success, study motivation will only be a function of the immediate consequences of studying and not be determined by the affective outlook on the future. How ever, when school results are perceived as instrumental for success in future life, then the motivation should increase with an increasing positive attitude toward the future. The second interpretation holds that the motivational effect of perceived instrumentality is mediated by the attitude toward the future. This means that a high perceived instrumentality would have a positive effect when the attitude is positive, and a negative effect when the attitude is negative. The existence of a future time perspective in present activities (instrumentality) will increase the motivation only for subjects with a positive outlook on the future. Any reference to the future will reduce the motivation to act for subjects with a negative attitude toward their future. The second interpretation implies a disordinal interaction between the attitude and the perceived instrumentality

	variable. Our data on the motivation to study confirm the second interpretation. Whatever interpretation is most adequate, the implications are clear. Induction of a future time perspective in present activities will increase the motivation only for subjects with a positive attitude toward the future. From a motivational point of view, any reference to the future con sequences of present activities should be avoided for subjects with a negative attitude toward the future. The data on school results reveal some unexpected tendencies. Unlike study motivation, they show no significant main effect of the affective attitude toward the future. Moreover, there is a negative relationship between the affective attitude toward the future and school results when the perceived instrumentality is low (see Table 2). Of 31 students with a high attitude toward the future and a low perceived instrumentality, 11 are underachievers. An a posteriori ex planation of this unexpected finding makes use of assumptions made in The Dynamics of Action (Atkinson & Birch, 1970). These students may have a very positive attitude toward their future because of future goals that are unrelated to studying. Because they perceive their studies to be unrelated to their future (low PI), their motivation to study is very low and competes with alternative behavioral tendencies directed toward goals other than school success" (Van Calster 9-10).