

REMODELING CLASS PREPARATION ACTIVITIES TO LEVERAGE TECHNOLOGY

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Engineering instructors should pursue creative ways to promote preparation prior to class to include videos, reading, as well as analyzing charts and figures. At the U.S. Military Academy, instructors of Environmental Decision Making (EV450) used a series of class preparation exercises to achieve this goal. The cadet curriculum is demanding and motivating cadets to prepare for ungraded events can be a challenge. Students were given a 5-point assignment before half of all lessons throughout the semester. Utilizing Blackboard Learn® as the delivery method, students were given three questions, one review and two requiring class preparation. The results were plotted against overall course grades, listed below in Figure 1.

It showed that the outcome of a student's class preparation generally correlates to the student's performance in the class. The wide range in course grades for students with similar course preparation scores (effort). The students who earned an A+ on all course preparation assignments had final grades range from an A+ to a C. Students who gave a strong effort by preparing for class routinely were either doing well or failed to meet expectations on major graded events. Using Blackboard is an excellent method to filter out the A students and identify the B and below students who may need more one-on-one instruction to help them achieve a higher course average. Early identification of these students is paramount to the success of improving student performance earlier in the semester to affect student motivation. Future changes based on lessons learned are to increase Blackboard preparation assignments in the first few lessons, identify those students who are not preparing for class or who are struggling with comprehension of the material, and creating a model for faculty to improve the lesson instruction and determining the proper methods to increase student motivation.

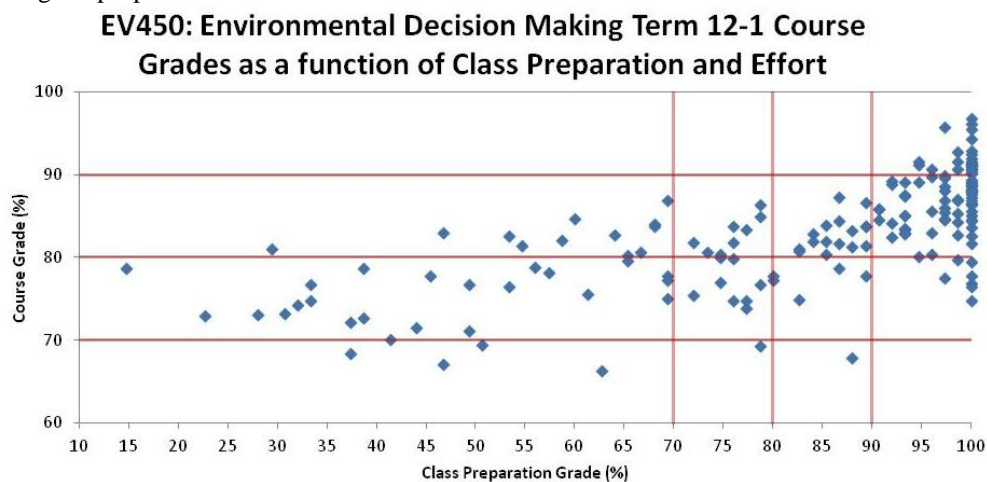


Figure 1: Undergraduate student's final course grade compared to the level of effort in preparing for each lesson leveraged by Blackboard®. The class preparation grade was worth 7.5% of the course grade.

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