SOFE 3490U Laboratory PROJECT: LAB 2

Student Engagement System

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Overview

The topic chosen for our group project is an integrated student engaging application through the blackboard course management system. We are proposing this project because we believe student engagement is integral to students' success and we believe we can maximize their studies by increasing their overall involvement in the classroom. The primary problem our topic addresses involves student absence from the classroom and increasing overall engagement of students . Attendance can be very low due to the lack of student classroom engagement and to prevent this we need to give the students a reason to stay focused on their studies. The purpose of this project is to develop a viable solution we can implement to increase participation and engagement within the classroom setting.

Objectives

The overall objective of this project is to create student engagement in classrooms. We will achieve this by collaborative learning as discussions can take place either online or offline as every classroom now has access to digital tools. For example, students can be given a passage to read or a video to watch and can later discuss with their peers on Google Classroom or groups on Blackboard. Comparatively, discussions can be held offline as the professor can pause the class and ask students to think-pair-share with the rest of their peers, creating an interactive and exciting environment, as students are learning and discussing with each other. Our project group will be focusing on collaborative learning the most as it focuses on students' critical thinking, compromise, and developing a skill set of problem solving inside and outside of school.

Other objectives we will be focusing on as well are interactive in-class activities - ie: mastery orientations, and an online discussion classroom after the lecture is complete. Interactive in-class activities, whether they are online or on paper, can create a fun environment for the class as it will encourage students to come to class and participate. Our group will be focusing on mastery orientation instead of performance orientation. The reason for this is because we want students in classrooms to pursue an activity for the main purpose of learning and understanding, rather than trying to obtain good grades, please their parents or outperform their peers (performance orientation). Emphasizing the class to work as a team can better students to learn, therefore, games such as kahoot can test students' skills, create an interactive experience and leave students with a full and thorough learning experience. Additionally, we would like to create an online discussion on Blackboard for students to interact online over the material that was learnt during class. This learning space will allow students to

ask their peers questions and discuss topics outside of school hours. Also, video lectures will not be posted so therefore, students will be motivated to come to class and if some students by any chance have to miss a class, discussions can be held to talk through what was taught in the past lecture.

Conclusively, the main three objectives our group will be focusing on are collaborative learning, interactive in-class activities, and online discussions. We believe that emphasizing these goals will help students learn and understand course material better, as well as create a fun and entertaining class environment, encouraging students to come and participate in class.

Measures of Success

The project will measure the success rate of student classroom engagement through five methods. The first method will be through maintaining a schedule, which will provide graphical visualization of all major milestones and the corresponding dates. This will also further impact the overall project timescales by maintaining dates for proposals, design, development, testing and execution/project delivery. The second method that will be used to measure success rate is through project quality measurement. This method will be used throughout the project including the design, development and testing stages. This measure will allow for an evaluation of all the standards and regulations at each stage, further preventing any potential errors in the system. The third measure of the project objective will be done through cost analysis and cost management which will maintain the financial aspect of the project. This management technique will be used throughout all the project stages to consistently compare actual money spent versus the project budget and to ensure the projects' costs do not exceed money provided by the investors' contract. This method will also allow engineers to re-evaluate costs dedicated to certain portions to maintain the overall budget until the final delivery stage. This process will also allow for future enhancements for similar projects as it will provide a better understanding of the cost estimation for each stage. Furthermore, the fourth measurement of success for the project will be through the measurement of Stakeholder Requirements. By allowing feedback from stakeholders at each stage will ensure a constant evolution of the product that will result in satisfaction for the end-users. The final method to measure success of the project will be during the final iteration and product delivery which will compare the final product to the initial scope of the project. It will measure whether the final product achieved lies within the objective of the initial framework.

Infrastructure

Our student engagement application will be done through a course management system so it will have a software infrastructure. The software will be available through blackboard. Students will login and navigate to the course of their selection. We want to be able to add a link to our application within each course homepage for professors to add certain modules and even

special notes that will allow students to be successful in their studies. Furthermore we need to actually track the progress of our students. We can store progress in a database in which the school and professors can see if their students are actually involved. For example, maybe the professor will issue mini tasks that can only be done in class and upon completion and submission of a task, it will be documented and saved in our software application database. This way professors can see that students are active and involved. The overall functionality of the application works similar to blackboard, but instead of reporting grades, it tracks and stores progress of students. If they realize their involvement is low, it should encourage them to take more of an active role in the classroom