
Systems Analysis and Design: Student Group Projects in a Blended Environment

Dr. Emre Erturk
School of Computing
Eastern Institute of Technology
eerturk@eit.ac.nz



Helping Groups Succeed in a Blended SAD Course



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Abstract

This paper discusses some of the aspects of preparing the Systems Analysis and Design course for blended delivery, with particular emphasis on student group assignments in a blended environment. The first step is to understand how blended is different from pure classroom delivery, especially pertaining to student project groups. A brief literature review reveals interesting alternative approaches and good practices that may be used in the future. These approaches and practices together with additional online learning material may help groups succeed at the same level as in a pure classroom delivery. At the end, the ideas are summarized to form a recommendation for further work on this course.

Keywords

Systems analysis and design, blended delivery, group work

Introduction

Students in a blended SAD course will have fewer lecture meetings. Therefore, in comparison with pure face-to-face students, they will have fewer regular occasions for group relationship building and communication. As a result, they may have fewer face-to-face interactions: with members in their own group, with all other students that may benefit their own group, and with the lecturer.

They will also acquire the SAD knowledge differently. How well they understand SAD phases, principles, and models will also impact how well they will perform in their group project. Instead of learning and discussing SAD concepts and guidelines primarily in the face-to-face classroom, they will be expected to conduct more independent learning as well as using online learning materials.

Literature Review

Project-based collaborative learning induces students to translate cognitive knowledge into practical and creative results (Tilchin, 2010). This involves breaking down the project into specific tasks, deliverables, and stages. Each student in a group needs to be assigned to a specific task(s) independently. Online learning tools assist the lecturer in monitoring how students distribute the tasks, and progress through interim deliverables and stages.

There is a need to track interactions and progress in each group beyond just the meeting minutes. This can help the lecturer intervene if necessary, especially in a blended environment where the lecturer has less face-to-face contact with the students (Steenkamp, 2002). The lecturer can do this both by using the online learning tools to capture such information, and by appointing (or requiring the election of) a leader in each group and communicating with him/her.

A Possible Framework for Guidance

The course designer and the lecturer (teacher) need to consider certain questions, and answer them. For this paper, the questions are about student project groups and the role of the teacher and the technology in facilitating them. Thus a new matrix (below) may be created that matches the educational actors according to Caceffo & Rocha (2011) with the stages of group development according to White (2009).

	Teacher	Technology	Students
Forming			
Storming			
Norming			
Performing			
Reforming			

Table 1: A Matrix of Stages of Group Development and the Main Actors of Blended Delivery

The objective is to ask and answer the appropriate question for each cell, for example, what role can the teacher play during the forming phase... what role can course technology (e.g. software) play during the storming phase?... etc.

Conclusion and Recommendations

Blended delivery requires that lecturers are available via email or chat for consultation more than in pure face-to-face classes (Felder, 2001). Some of the information about the internal interactions in each group needs to be available online as examples to all other groups in order to offset the possibility that inter-group interaction and assistance will be less during blended delivery. For a blended SAD course, one half of the theoretical contents can be delivered via face-to-face lectures, which will leave only some lectures and mostly tutorials to be done online or independently by the students.

References

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