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Making Teamwork Work in the IS Classroom

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Introduction

Objective: To present a "Teamwork Design Model" that will help participants identify and manage the key design decisions they make, explicitly or implicitly, when using team projects in their IS courses.

Rationale: IS practice requires not only technical skills, but also the ability to work with others. The importance of developing students' teamwork skills leads many IS faculty to incorporate team projects in their courses. Unfortunately, placing people in groups does not guarantee that they are going to be able to work as a productive team. Not surprisingly, team projects frequently generate a lot of anxiety and frustration for all involved (including the instructor!), resulting in more entropy than synergy.

The "Teamwork Design Model" draws from group dynamics and teamwork literature to identify the nature and impacts of the various decisions that IS instructors make when structuring team projects. These decisions can have profound effects on both the process and the outcomes of a team project. They are often made, however, with little or no awareness or reflection about their consequences. In many cases, instructors may not even be aware that certain features of team projects reflect design choices, rather than imperatives. This workshop will help participants to become aware of the decisions they make, consciously or unconsciously, when structuring team projects in IS courses. It will also help participants to anticipate and evaluate the possible consequences of these decisions.

Format: The presentation will be highly interactive, and supported by a laptop PC, running Windows, connected to a Liquid Crystal Display (LCD) panel. The model will be displayed in successive images, where the level of detail and complexity will gradually increase).

The nature of the problem

* Why teams are so necessary, and yet so difficult to manage in the IS classroom.

Overview of the model

* The model represents a team as an open system, working to accomplish a series of goals related to the successful completion of an IS project.

* Design decisions made by the instructor affect the input variables (team composition, tasks and resources), as well as the environment of the team (the culture of the class and its subgroups, the reward systems used in the course). Input variables and environment affect what happens in the "black box" of the operations of the team (team process, structure and work technology), thus influencing the outcomes of the team project.

* The team's ability to work together also varies over time, as the team experiences the various phases of group development. Interventions by the instructor may facilitate or hinder group development, thereby affecting team performance.

* Outputs of the team project include not only objective task outcomes (the project itself), but also subjective outcomes related to group and personal outcomes (level of satisfaction, change, growth).

Using the model to make teamwork work in the IS classroom

Discussion of participants' experiences visavis the predictions of the model and examples from the author's direct and indirect experience. We will explore the nature and impact of design decisions related to:

a) Input Variables

* team composition (should the instructor determine the number of participants in the team, or leave it up to the students? should the instructor assign individuals to the teams on the basis of their characteristics and skills? what are the important dimensions for assessing the degree of homogeneity or heterogeneity of a team, for different types of IS projects?

Figure not available. Please contact author.

when should we expect homogeneous or heterogeneous teams to be most productive?);

* team project (what objectives should we try to accomplish when defining an IS team project? how do the relevance and nature of team project affect the motivation and commitment of team members? what is the appropriate level of task uncertainty we should try to build into the team project? what types of interdependence, and consequent coordination requirements, does the project involve? what is the pedagogical "fit" of the project in the overall course?);

* team resources (how much time, both in and out of class, should be devoted to working on the team project? what elements of the spatial and physical set up can be used to facilitate interaction? what is needed, and what is available, in terms of hardware and software to support the project? how can email help team members coordinate their

activities and exchange information? what level of IS expertise is necessary for the project, and what is realistic to expect from the students?)

b) Environment:

* culture of the class and its subgroups (how can the instructor support the development and maintenance of a culture whose values, symbols, rituals, stories support teamwork?);

* reward systems in the course (what should be the impact of the team project on the overall course grade? what instruments and processes should be used to performance? should performance be evaluated in terms of desired behaviors or desired outputs? should we be concerned with assessing individual contribution to the team project? should we evaluate the performance of each team against absolute standards, or in comparison with the other teams? how much heterogeneity or homogeneity of results should we aim for, and expect?

c) Team Development:

* stages in group development over time (what types of situations should the instructor anticipate as the teams go through the developmental stages of "forming, storming, norming, performing"? how should the instructor help the teams handle the opportunities and threats inherent in each of these stages);

* "midpoint" phenomena (what are the project design implications of the changes in team dynamics that typically happen at the midpoint of the time available before a deadline?).

d) Team Functioning:

* team process (what interventions, if any, are available to instructors for helping teams deal with issues in goal setting, decision making, problem solving, conflict management, power and leadership, communications?);

* team structures (should, and can instructors help team members define role expectations? should, and can instructors train students to perform roles that are necessary for the project, but do not come naturally to them? should, and can instructors interfere with the norms and status systems of the teams?);

* work technology (what types of instructor intervention are desirable, and possible, to help students define the activities necessary for task completion, the more appropriate forms of division of labor, the best use of resources?);

e) Output Variables:

* objective task outcomes (what should be the instructor's expectations regarding the effectiveness and efficiency of teams in completing their projects? how much learning of IS concepts and techniques can be accomplished through team projects?);

* subjective team and personal outcomes (should IS instructors have explicit goals for the project in terms of subjective outcomes such as: team cohesiveness, development and growth; level of satisfaction or dissatisfaction with team experience; individual change as team member and person?)

WrapUp

* Suggestions for further exploration of how to "make teamwork work" in the IS classroom (references, exercises and other resources).

References

Available on request from the author.