

Strategies for Students and Instructors how to Improve Online Groupwork

Abstract

Online groupwork is becoming an increasingly popular instructional strategy. Although researchers have questioned the benefits of groupwork in online learning environments, little empirical research has examined the challenges it presents. The purpose of this study was to investigate the experience of students involved in online groupwork by to find strategies that could be implemented to assist students in completing groupwork online.

Introduction

Online learning has grown rapidly in recent years and continues to expand as educators in a variety of sectors adopt this form of education (Saba, 2005). For example, the number of students enrolled in distance education courses offered by in degree-granting postsecondary institutions increased from 1.6 million in the fall 2002 to 3.5 million during the fall 2006. The percent of postsecondary students who enrolled in at least one online course increased from 10% in 2002 to 20% in 2006. More than two-thirds of all higher education institutions now offer online courses, with the majority of these providing programs that are fully online (Allen & Sherman, 2007). The growth of online learning is expected to continue in the foreseeable future for both undergraduate and graduate education.

As with face-to-face learning environments, online learning environments are designed in a variety of ways and use many strategies to meet the needs of students (Bonk, Lee, Liu, & Su, 2007). Some of the literature related to online learning indicates that groupwork in online classes is beneficial (Conrad & Donaldson, 2004; Palloff & Pratt, 2005). However, others have indicated that online groupwork may be perceived as more challenging than groupwork in face-to-face settings (Kim, Liu, & Bonk, 2005; Koh & Hill, 2006).

Although online learning may be helpful to some students, teaching online is not always easy for instructors. Most educators lack expertise in building and promoting effective teams in an online class. Further, improving the quality of online classes remains an important and necessary challenge for many instructors. One of the key components of good teaching and learning in online groupwork is to promote students' group social interaction. Successful collaborative learning does not start automatically (Oliver & Shaw, 2003), so establishing teaching strategies for helping student's groupwork may prove to be useful.

The purpose of this study was to explore the experience of students in online groupwork. Our intent was to find strategies that could be implemented to assist students in completing groupwork online. To guide this research, two primary research questions were posed:

1. What do students suggest for prospective online groupwork learners could be done in the learning environment to make their groupwork and collaboration more effective?
2. What do students suggest for faculty members how to facilitate student groupwork?

Literature review

Student Perceptions of Online Learning

Some researchers have found that learners perceive flexibility, convenience, and learning enhancement as strengths in an online learning environment (see, for example, Song, Singleton, Hill, Koh, 2004). While there are many advantages to online learning, there are also numerous

challenges particularly for instructors and students. For example, the degree of satisfaction or dissatisfaction that learners' experience in online learning varies (Chyung & Vachon, 2005). The literature related to online learning indicated that students experience frustration in several areas: technological problems (Hara & Kling, 1999; Song et al., 2004), delayed feedback from the instructor (Hara & Kling, 1999; Vonderwell, 2003), ambiguous instructions on the Web site and via e-mail (Hara & Kling, 1999), lack of sense of community (Kim et al., 2005; So, 2006; Song et al., 2004), and difficulty understanding the objectives of the online courses (Song et al., 2004).

The overall benefits and challenges of online learning create an important context for understanding specific interactions in these environments. As indicated above, many of the reported benefits and challenges relate to participant interaction. This pattern also holds true when examining groupwork in online contexts. Several aspects of groupwork reported as beneficial and challenging are related to the social interaction that occurs when teams of students work collaboratively toward project completion.

Groupwork in an Online Learning Environment

Groupwork is one of the instructional strategies used for the social construction of knowledge and skills (Vygotsky, 1978). Through interaction and collaboration, students experienced multiple perspectives and constructed their knowledge (Fung, 2004). They developed critical thinking skills through the process of judging, valuing, supporting, or opposing different viewpoints. Collaborative learning encourages students to engage more deeply and actively and to reflect more on what and how they are learning.

It should be noted that online collaboration does not occur automatically, nor does it simply make learning easier. Online collaboration is affected by several factors. These factors are also important to group dynamics in an online learning environment. To improve collaborative learning, Han and Hill (2007) recommended the use of small discussion groups to reduce challenges in managing the large number of messages generated and to support students' engagement in more in-depth discussions.

In order to produce effective virtual learning groups, collaborative group-based learning must successfully incorporate three important processes: creation of the groups, structuring of learning activities, and facilitation of group integrations. The important factors for creating effective learning groups in an online learning environment include group size and group composition. Learning activities should be structured to create positive independence and accountability. Group integration also requires developing group skills and group norms (Graham & Misanchuk, 2004). These factors have been found to help learners engage in powerful, meaningful collaborative processes that allow them to learn content and develop better collaborative learning. These factors are also important for group dynamics and group development in virtual learning environments.

Group Dynamics

The term group dynamics implies that individual behaviors may differ depending on individuals' current or prospective connections to a group (Forsyth, 1999). One of the well-known progressive models is the group development model developed by Tuckman (1965). Tuckman's group development model assumed that most groups move through four stages: forming, storming, norming, and performing. Like a linear model, each stage of Tuckman's model is an essential step for a team; if the first step is not accomplished, the later stages will not

be successful. Group dynamics play an important role in enhancing students' learning and satisfaction.

For online group development, Palloff and Pratt (2005) suggested that online groups build trust first, and then move through several phases, including a normative phase, a problem-solving phase, a disagreement or conflict phase, an action phase, and a termination phase. Similarly, Conrad and Donaldson (2004) also recommended the implementation of strategies for learning in online engagement phases. In this frame, at the beginning of a class, an online learner must establish comfort with the technology, comfort with primarily text-based communication, and comfort with the online course. The learner will be frustrated with the course if the comfort level is not reached. In addition to these elements, learners have the uncertainty of having to quickly build trust and interdependence with others whom they may never meet. So the online instructor must provide increasing opportunities for learners to know and trust one another, with the goal that learners will gradually be able to develop into a community.

Social Interaction

Social interaction is important for online collaborative groupwork. Students communicate with their peers, group members, or instructors, negotiate meaning, and get feedback through interaction. This interaction can impact students' perception of collaboration and social presence. Social interaction plays a role in enhancing student learning and satisfaction (Fulford & Zhang, 1993). In turn social interaction may impact group formation, group dynamics, and the building of group structures (Kreijns, Kirschner, Jochems, & Van Buuren, 2004). Social interactions are affected by several factors: individual learners' characteristics, technology, task type, and instructor's pedagogical strategies.

Social Presence

Social presence—the feeling of community (Rovai, 2002) and connection among learners (Gunawardena & Zittle, 1997)—is one aspect of interaction that has received considerable attention in the literature. Social presence plays an important student role in student satisfaction with online courses (Gunawardena & Zittle, 1997; So, 2006). Social presence affects student learning and interaction. Social presence enables students develop effective groups online, which assists the students in building a sense of community in an online class (Palloff & Pratt, 2005).

Some researchers have sought to identify strategies to make the social interactions that occur in online learning environments more explicit. An increase in the level of online interaction occurs with an improved level of social presence (Tu, 2002). As a predictor of satisfaction within online learning environment, social presence include three dimensions—social context, online communication, and interactivity—emerged as important elements in establishing as sense of community among online learners. Fostering the culture of community appears to be a key contributor to be the perception of successful learning. Han and Hill (2007) also suggested encouraging participants to share their backgrounds and experiences both formally and informally. The authors suggested that the generation of social dialogue may encourage participants to engage in discussion, enabling the development of social presence. Hill, Rave, and Han (2002) recommended giving learners sufficient opportunities to interact with each other as well as with the instructor. They address the importance of having face-to-face (f2f) meetings. However, in distance course, many of students who are full time employees and live in different areas cannot attend meetings. If face-to-face meetings are unavailable, initial contacts can be

made through the online learning environment (Zhang & Ge, 2006). Group members also need to set up regular meeting to build sense of community and work.

Technology

Communication technologies give geographically and temporally distributed students the opportunity for team collaboration in a virtual workplace by providing an environment for knowledge construction through collaborative learning (Stacey, 1999). Yet current web-based learning environments may not fully support opportunities for social interaction. In this environment, online groupwork may be perceived as more challenging than groupwork in face-to-face settings.

Communication tools can be difficult to use and may hinder communication between group members, which, in turn, can make collaboration between group members difficult. When communication is problematic, the collaborative process is not able to function at an optimal level (Ragoonaden & Bordeleau, 2000). Student experience of technology shapes and influences their perceptions of online collaborative learning, as well (Ragoonaden & Bordeleau, 2000). For a successful online collaborative learning environment, the instructor has to make students comfortable with the system and with the software that they are using.

Teacher as facilitator

As a facilitator, motivator, and guide and coordinator, the online instructor plays an important role in offering guidance, feedback, and support in online learning environments (Fung, 2004; Koh & Hill, 2006). Palloff and Pratt (2005) recommended that the instructor should act as “a facilitator or guide, allowing students to create their own learning process through the phases of collaborative activities” (p.19). Successful collaborative learning does not start automatically (Oliver & Shaw, 2003), so establishing teaching strategies for helping student’s groupwork may prove to be useful.

Methodology

Research Design

The study used qualitative case study methods including a background survey, interview (individual and group), observations, and archival documents as sources of data.

Participants and Groupwork

The target population for this study was graduate students at a large southern university who was taking one course in instructional technology, which was supported by Horizon Wimba® and WebCT®. The course required them to be involved in weekly group activities and a group project. The course required them to be involved in weekly group activities and a group project.

Six students, all the two group members, in two groups completed a background survey and participated in four interviews at one-month intervals. The participants were four females and two males. In terms of ethnicity, five were Caucasian, and one was African American. The number of previous distance courses the participants had taken varied from two to nine.

Procedure

Data was collected over sixteen week in spring semester 2007. The first researcher asked students who took the online course to participate in this research in the first face-to-face

meeting. The participants completed a background survey. Then, the researcher conducted one 30-minute-interview each month with each participant, allowing her/him to reflect on the groupwork experience during the past month. The first researcher also observed their group interaction processes and their perceptions two or three times each month by listening in on their synchronous discussion and reading their online group chatting.

Data Analysis

Inductive analysis methods were used to analyze the data (Merriam & Associates, 2002). Qualitative data was organized according to the participants' response to each interview question. The researchers coded the interview transcripts individually and then compare the coding in order to identify themes that would inform the initial research questions. Validity measures of triangulated data and reliability measures of multiple data collection approaches provide a framework for accuracy and transferability of this research. The qualitative data analysis was completed on August 2007.

Results

Results of the study indicate that four of the six students agreed that online groupwork helped them to construct knowledge by allowing them to experience multiple perspectives from the other group members. However, students have encountered technical problems, delayed feedback from group members, lack of accountability, difficulty communicating with each other in order to make decisions, and difficulty understanding group project goals. The individual group members had different levels of satisfaction with their online learning environment and also had different perceptions of online groupwork.

Strategies for Students

The students suggested the strategies for students that could be implemented to assistant students in complete groupwork online. The strategies included three areas: group formation, communication, and building a sense of connection (see Table 1.).

Table 1. Strategies for Students

Areas	Strategies for Students
Group formation	<ul style="list-style-type: none"> • Having a small group • Finding a group based on shared interest • Choosing people that you know and have worked with before
Communication	<ul style="list-style-type: none"> • Checking email every day • Sending frequent emails even if it's something minor • Having a regular synchronous online group meeting • Having a group coordinator • Setting up a group communication protocol
Sense of connection	<ul style="list-style-type: none"> • Attending a face-to-face meeting • Spending time together socially

Strategies for Instructors

The students also suggested the strategies for instructors that could be implemented to assistant students in complete groupwork online. The strategies include two areas: design and process (see Table 2.).

Table 2. Strategies for Instructors

Categories	Sub-categories	Strategies for Instructors
Course Design	Designing for facilitating interaction	<ul style="list-style-type: none"> • Providing multiple communication methods for groups • Having a mandatory weekly group activity during the asynchronous portion of class
	Providing an overall plan for the class	<ul style="list-style-type: none"> • Providing a specific deadline, checklists, rubrics, and examples. • Giving plenty of clear benchmarks about where students should be at certain points in the semester. • Posting weekly announcement
	Preparing for technology	<ul style="list-style-type: none"> • Setting up a WebCT course in advance before the first class started
Process	Helping Group formation	<ul style="list-style-type: none"> • Providing group formation guidelines • Limiting group size • Helping students a find a group
	Building sense of connection	<ul style="list-style-type: none"> • Having a face-to-face meeting • Providing a time for group members to learn each others' background and skills
	Building virtual team skills	<ul style="list-style-type: none"> • Having students knowing how to use communication tools. • Address groupwork process , strategies, and characteristics of groupwork
	Being involving in group process	<ul style="list-style-type: none"> • Checking if they were on track • Monitoring their groupwork process • Check to see if there is any problem
	Evaluating the process	<ul style="list-style-type: none"> • Being more involved in group evaluation. • Providing a group evaluation rubric or checklist for group evaluation. • Having students submit individual work samples. • Assigning a group meeting time, attend their group meeting, and evaluate each group member.

Implications and Conclusion

In this study, participants indicated that the instructor role should include being a facilitator, motivator, and guide. Instructors should be also prepared to design and facilitate the most effective learning experience. Establishing teaching strategies for helping students' groupwork may prove to be useful. Successful collaborative learning does not start automatically (Oliver & Shaw, 2003).

The current study has several implications for practice. The results of this study can inform educational practice about online learning environment, and, in particular, the facilitation of group interaction and group dynamics. First, online instructor should be provided increasing opportunities for learners to get to know each other and to build trust in another. There is a need to work with learners to assist them with building familiarity and establishing community in online contexts. Integrating strategies for community building into the design of the course may assist with this effort. Continued research related to community building strategies in a variety of

contexts is also needed to enable the advancement of best practices in the dynamic context of online learning environments.

Second, online educators should assist students in forming groups; both homogeneous and small group. Researchers indicated that homogeneous groups tend to be more cohesive and that homogeneous group may be more effective for distance learners because it can lessen frustrations and problems. Group size was also an important factor for groupwork. Having a small group may enable students to communicate and interact with group members easily in a synchronous online learning environment. Through interaction, they may build sense of connection more easily.

Third, an online instructor should intervene in students' online groupwork. The instructor should be involved in students' groupwork process, should monitor their groupwork process, should evaluate each group member, and should ask if there are any problems. The instructor should provide appropriate guidance to assist with groupwork and should make use of specific interventions that help the group become more aware of the fundamental issues and how these issues may shape and influence the ways they work together.

Fourth, an online instructor should provide students with detailed guidelines for groupwork projects and for the course. Detailed and clear guidelines help students to understand the objective of the groupwork more easily. This is especially important as online learners often have very busy schedules. Five of the six participants were full time workers, so they wanted the instructor to provide specific deadlines, checklists, rubrics, and examples for the group project as they believed this would help them to plan their time more effectively.

Finally, online instructors need to adapt their teaching methods to better support students' groupwork. When learners have conflicts with their group members or have problems with their groupwork, they can feel frustrated. Establishing teaching strategies to facilitate students' groupwork may prove to be useful.

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