

CRITICAL SUCCESS FACTORS FOR COLLABORATIVE PROJECTS IN HIGHER EDUCATION COURSES – A COMPARISON STUDY BETWEEN UK AND MALAYSIA STUDENTS

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Abstract

Almost every Higher Education (HE) institution integrates group assignments into their course activities. This is to help students to develop some transferable and employability skills such as team working, written & verbal communication, problem solving & decision making, and organization & time management. Despite the importance of collaborative projects, students are still disinclined to participate actively in them. As past research shows, many group work activities fail and this has been seen as a major obstacle for HE academics. A large body of research has been published on group work success in the work environment. However, substantially less research has focused on HE, and therefore there is limited understanding of what motivates students to actively participate in their group assignments. Consequently, this research seeks to answer two important questions: a) what are the key factors affecting success of group work activities in HE? And b) how these factors vary from one HE institution to another? Towards answering these questions, this study first propose a conceptual framework highlighting the key factors influencing group work performance at both Undergraduate and Postgraduate levels. Next, it will conduct a qualitative study to sanity-check the framework. This will be followed by a large quantitative study to examine empirically the framework and research hypotheses. For the purpose of this study, the data will be collected from UG and PG students from Coventry University (UK) and Tunku Abdul Rahman University College (Malaysia). The final outcomes of this study will make significant contributions to both knowledge and practice. In terms of knowledge, this study will extend the existing knowledge on the antecedents of group work success in HE. In terms of practice, it will propose a set of guidelines and practices to help academic practitioners on how to improve students' engagement in their group work activities.

Keywords: Group Work Activities, Collaborative Learning Projects, Group Work Success, and Collaborative Project Success

1 BACKGROUND

Employability has been recognized as one of the most important points about Higher Education (HE). There is well established literature which shows how HE can help students with their employment prospects. Thus

nowadays universities are constantly looking to find better ways to help students in that regard. Academic activities have been designed in a way to help students to develop skills that can assist them in gaining employment after they graduate. Almost every institution integrates group assignments into their course activities as past research indicates (Colbeck et al., 2000, Colbeck et al., 2009). This is because students can benefit from it in many ways. Group work projects can be seen as training for students which facilitates their personal development and provide them not just with subject skills and knowledge and the ability to apply theory, but it also helps them to develop a set of transferable skills which can assist them with their future career (Thomas, 1999, Coers et al., 2009). These transferable skills include team working, written & verbal communication, problem solving & decision making, and organization & time management. Through group assignments students learn how to work effectively within a group of people from a wide range of backgrounds to accomplish tasks (Coers et al., 2010) and learn how to communicate ideas and information effectively both in writing and verbally (Thomas, 1999). Collaborative projects also train students to learn how to identify obstacles, identify diverse solutions and make appropriate decisions to overcome problems (Jonassen and Kwon, 2001, Beebe and Masterson 2010). Further, it helps them to learn how to organise their time and resources, accomplish tasks, and meet deadlines (Owen, 2001). These set of skills are those that employers are expecting from graduates (Owen, 2001). Therefore, one could argue that group assignment assists students to gain employment and quickly become effective team members (Ettington and Camp, 2002). In addition, group work activities facilitate students' self-development. It aids their critical thinking and teaches them how to evaluate their own performance, identify their weaknesses, and take actions to improve themselves (Gokhale, 1995). Subsequently, group work activity has been recognised as an effective teaching and learning strategy in university courses, and has been employed by many academic educators (Goldfinch et al., 1999). Some researchers have criticized this approach as they argue that it is a poor reflector for individual skills and academic abilities (De Vita, 2002, De Vita, 2001). Yet the importance of group projects in HE, particularly its impact on students' employability, is eminent in the literature (Jenkins and Pepper, 1988, Alistair, 1998, Oakley et al., 2004).

2 RESEACH GAP

Despite the great benefits to be gained from group work activities, students often appear reluctant to get actively engaged in them, and therefore often group work activities fail (Gottschall and García-Bayonas, 2008). This has been seen as one of the major challenges HE educators face during their teaching practice. Although several empirical studies have attempted to investigate the factors leading to success or failure of group work (Salomon and Globerson, 1989, Lester et al., 2002, Vandenberghe et al., 2004, Brooks and Jeong, 2006), very limited research with regards to group projects in the context of HE exists. Thus, this research aims to answer the questions:

What are the critical factors leading to the success of failure of group work activities in HE? How do these factors vary from one HE institution to another?

Accordingly, this action research aims to investigate the most important factors leading to the success or failure of group projects in both undergraduate and postgraduate education. This research will first make an attempt to propose a framework to better understand several key factors related to success or failure of group task activities in HE. Subsequently, future research will be conducted to test the framework and also to further investigate ways to overcome the identified obstacles. The final outcome of this research is expected to help academic practitioners on how to improve students' engagement in group work activities.

3 CONCEPTUAL FRAMEWORK

Building upon prior related work, the present study proposes a framework (See fig 1) to better understand how different factors such as communication, commitment, time management, group size, and group diversity may influence group work success in HE.

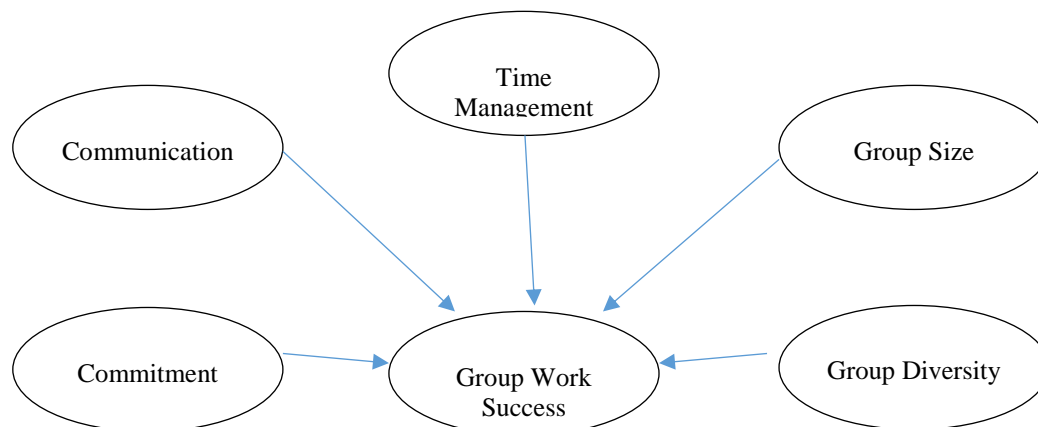


Fig 1: Framework

3.1 Communication

The importance of communication for the success of group projects in organizations is well documented (Pinto and Pinto, 1990, Eastman and Swift, 2002). Communication has been identified as one of the crucial elements in group work activities, which has an impact on group members' performance (Eastman and Swift, 2002). For example, prior research has shown that good communication has a positive impact on group work outcomes, particularly in newly formed groups (Lester et al., 2002). Technologies transform the ways that people work in group projects (Webster and Wong, 2008). Team communication is usually facilitated by technologies such as discussion boards, online groups and emails. Prior researchers have emphasized the effectiveness of some of these technologies for group work activities (Ballard et al., 2008, Brooks and Jeong, 2006). One study shows that although students have a positive attitude towards using discussion boards for group work, they fail to utilise it effectively (Robinson, 2011). Findings from several other studies reveal that students tend to communicate better in their group projects when using technologies that they already use regularly (McCarthy, 2009, Lampe et al., 2011). Accordingly, one can draw a conclusion that effective communication is one of the key success factors for a group task.

P1: There is a positive link between effective communication and group work success in HE

3.2 Commitment

Commitment is another crucial element in collaborative process. The significance of commitment within organizations, particularly its effect on group work performance has been well recognized for several decades (Thomas and Bryan, 1996). There is well-established literature demonstrating the positive effect of task commitment on group work outcomes. For example, in their study, Vandenberghe et al. (2004) have found that commitment positively relates to team members' behaviour in collaborative learning projects which ultimately has a significant impact on team work outcomes. Similar findings were also reported in several other studies (Klein and Mulvey, 1995, Wech et al., 1998). Consistent with these findings, the present study postulates that students' commitment has a positive impact on their performance in their group work activities. Accordingly, it could be then argued that commitment was another success factor for the task.

Commitment is a complex and multidimensional construct. It has been studied in different disciplines including Education, Psychology, IS, Business, Marketing, and Organization, and therefore it has been defined in many ways in the extensive literature. The concept of commitment is regarded as a person's readiness to continue to invest in and maintain a relationship (Stanko et al., 2007, Gharib et al., 2017, Tsiros et al., 2009). This is the necessary condition for developing long term relationships (Jae Wook et al., 2008). In the organizational context, it is described as a psychological bond which makes employees stay with their organizations (Meyer and Allen, 1991, Meyer et al., 2002). Thus, in the context of group work, it can be referred to as a psychological bond that could shape the students' participation behaviour. Three types of commitment are found in the reviewed literature, namely affective commitment, continuance commitment, and normative commitment (Bateman et al., 2010, Gharib et al., 2017). Affective Commitment reflects the bond between students and their group that is based on the members' strong emotional attachment that makes them stay and participate in their group. Differently, Continuance Commitment, often branded as 'calculative commitment' (Dabholkar et al., 2009), can be described as students' belief that leaving their group would be costly. Thus, in a group project, a student may decide to stay and continue to participate because of the costs associated with leaving. Normative Commitment, unlike the two previous types of

commitment, reflects the students' feelings of obligation to stay with the group. The effect of these three types of commitments has been tested in various study contexts (Gharib et al., 2017), yet only limited research has been found that focuses on group work activities in the HE context. Accordingly, the present study will also make an attempt to examine how these different commitment types may affect group work success. Therefore this research proposes the following:

P2: Different types of commitment have different effects on group work success in HE

3.3 Time Management

Time management is one of the principals of good academic practice in HE. It serves as a medium for collaboration in teams, which has a significant impact on teamwork effectiveness (Gersick, 1988). Effective time management is a crucial point in group work activities as the interaction between the members and the whole process occurs through time (Ballard et al., 2008). Particularly, researchers have suggested that time management is one of the three vital success factors for group projects (Atkinson, 1999). Furthermore, prior researchers have reported that there is positive relationship between time management and students' academic performance (Macan et al., 1990). Consistent with prior research, the present study proposes that effective time management has a positive impact on group work success in HE.

P3: There is a positive link between effective time management and group work success in HE

3.4 Group Diversity and Size

Group diversity is defined as the differences between group members, and has been seen as one of the important factors that can contribute to the success of group work activities. The positive affect of group diversity on the success of collaborative learning projects and team working is renowned in the literature (Shaw and Barrett-Power, 1998, Pelled et al., 1999, Thomas, 1999, Ely and Thomas, 2001). In their study Ely and Thomas (2001) reported that group diversity has a positive impact on group work outcomes. Furthermore, group size has been seen as another crucial point in group work activities (Littlepage, 1991). Researchers have emphasized the importance of group size in collaborative works (Rau and Heyl, 1990, Gokhale, 1995). For example, Rau and Heyl (1990) have reported that small groups have less diversity while large groups make it difficult for all members to participate; both of these factors are likely to impact on group performance. It has been suggested that a group containing four members can be considered as a reasonable size (Gokhale, 1995). In line with the findings of prior studies, the present study finally postulates that group diversity and optimum group size have a positive impact on group work success in HE.

P4: There is a positive link between optimum group size and group work success in HE

4 METHODOLOGY

This study adopted a deductive approach to propose a conceptual framework highlighting the key important factors for group work success at both Undergraduate and Postgraduate levels. The next stage of the research will involve conducting a qualitative study using semi-structured interviews. The aim of this study would be to further explore the framework and identify any other important factors that may have been missed during the framework development stage. This will be followed by a large quantitative study to empirically examine the framework. For the purpose of this study, the data will be collected from UG and PG students from Coventry University (UK) and Tunku Abdul Rahman University College (Malaysia). The collected data will be analyzed using an SEM approach in Smart – PLS.

5 CONCLUSION AND FUTURE WORK

While numerous studies have examined the determinant success factors for collaborative projects, very few studies have been found that focus on factors pertinent to the group work success in HE. Towards filling this gap in the literature and to explore some of the most important factors affecting students' performance in their group assignments, this study proposes a conceptual framework that highlights how five main important factors such as students' communication, commitment, time management, group diversity, group size may impact on group work outcomes. Understanding these factors will assist academic practitioners to better understand some of the challenges students face during their group assessments. From the initial proposed framework, the following best practices can be drawn from the present study.

Including effective communication in the assessment criterion would encourage students to use communication methods such as email, discussion forums, and social media. Thus one may suggest that academics should require their students to provide evidence showing there was a sufficient communication between the group members.

Further, academics may include criteria that assess an individual student's commitment to their task by providing an individual report in the form of a reflection showing their contributions to the group task and their participation during the whole collaborative process. Additionally, adding planning and time management to the assessment criteria can be seen as another way to ensure the students' effective time management. When forming groups, academics should ensure each group has a reasonable group size (e.g. 4 to 6 members maximum) and also ensure each group has good diversity. For example, groups should have students with different gender, different age, different background, and if possible with different knowledge, skills and expertise. One might acknowledge that this research is at the early stage and therefore future qualitative and quantitative studies will be conducted to assess the proposed framework as well as its practical implications.

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