A survey of student perceptions of team-based learning: assessment of Pakistan and UK students

Raja Ahmed Jamil, Mehwish Iftikhar, Sadia Arif, Gulbahar, Sadia Bibi, Muhammad Imran Qureshi and Khalid Zaman

Department of Management Sciences, COMSATS Institute of Information Technology, Abbottabad, Pakistan.

ABSTRACT

Team-based learning (TBL) is an effective way of incorporating interactive small group peer teaching and enthusiasm for learning. The objective of this study is to evaluated student perceptions of team based learning by using a survey that elicited perceptions of different modes of learning between UK and Pakistani students. Overall 733 students were selected on the basis of quota sampling between two countries. Student preferences of teamwork were measured with 15 items scale. These were self administered questionnaire asking for responses on a five point Likert scale. Structural equation model (SEM) was applied on the obtained data set to find the difference between the preferences of English and Pakistani students regarding teamwork. Both groups had a common definition of teams and agreed on the value of teams with regard to satisfaction and productivity. The result shows that there exists difference in student preferences of teamwork. Students of both the cultures show positive response that teams are effective way to learn the management courses and increase their productivity and working in a team improve their ability to learn new things. However, Pakistani students showed more preference for teamwork as compared to UK students. Their attitudes diverged, however, with regard to the presence of slackers on the team. Possible reasons for the similarities and divergence are discussed.

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Introduction

Business organizations, both large and small play an imperative role in the economy. Majority of businesses are small and some of them grow to become large Multinationals. These businesses not only offer products to customers that they need but also create jobs for the people. A greater majority of jobs are created by these small organizations (Craig, 2006). Business organizations used to have individual workers who tend to work all alone, concerned with their own tasks, is the concept that has replaced by more focus on teams.

Within the last couple of decades, teamwork has become a well-known phenomenon. Adams (1998) argued that effective teamwork has led to an increase in productivity, a reduction in costs, a rise in employee involvement and flattening of the organizational structure. In response to this, teamwork has been implemented by organizations in different countries over the last few years. Faced with this growing demand for a workforce with teamwork experience, businesses are increasingly interested in the teamwork skills, behaviors and attitudes that new graduates bring to the workplace (Pineda, 2009). In 1994, University of Manchester medical school changed the curriculum for its undergraduate students from traditional to team based, and found positive results (Willis, 2003). There is growing evidence that team-based learning (TBL) is an effective way of incorporating interactive small group peer teaching and enthusiasm for learning (Parmelee, 2007). Dillenbourg (1999) found that education research has emphasized that when students are actively involved in collaborative activities tend to learn best and more of what is taught, retain it longer than conventional teaching, appear more satisfied with their classes and improve project quality and performance. Collaboration also helps students to develop social, cognitive and reasoning skills such as communicating and making ideas explicit, being responsible and cooperating with others (Schlichter 1997).

However, students do not always hold positive attitude about their experiences of teamwork and the effectiveness of teamwork in facilitating performance (McCorkle et al., 1999). Hamlyn-Harris (2006) found students who have had experience in team based tasks before, who found teamwork training useful, and who worked with people they have worked with before did not necessarily consider themselves to be more satisfied with team work. Studies have been conducted around the world to compare the student differences in preferences of teamwork. Pineda et al. (2009) conducted a study to explore student preferences of teamwork across USA and Lithuania students and found that students from societies with different cultural values could be developing different attitudes toward teamwork from their educational experiences. Hills (2005) studied several national cultures on individualistic vs. collectivistic dimensions and found that cultures having high degree of collectivism could be more comfortable with group process. Culture plays a part in developing students 'attitudes towards teamwork and it vary across the cultures. Thus we are interested in finding and comparing the attitudes of UK and Pakistan university students as former is the developed economy while the later is in transition phase. This study is to explore and compare the students' preference of teamwork in UK (London) and Pakistan. Specifically, the present study intend to know the following questions i.e.,

- How much students are satisfied in both groups (UK and Pakistan), from their teamwork experience?

Tele:
E-mail addresses: khalidzaman@ciit.net.pk

● To find out preference of students regarding to the production of better outcomes while working in teams as compare to working alone.

The study framework is shown in Figure 1 which shows four hypothesized relationships among the variables i.e., teamwork, productivity, satisfaction and slackers.

Figure 1: Research Framework
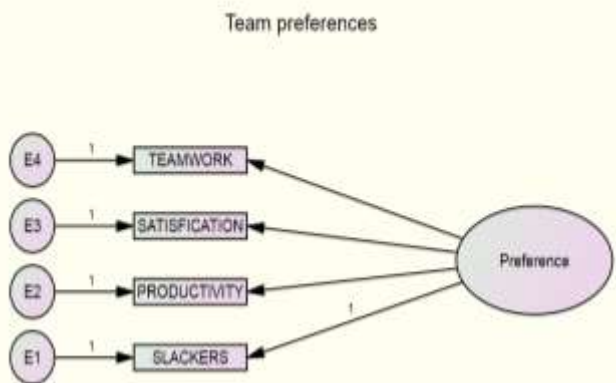
Source: Self extract.

In the light of above statements, the following hypotheses have been generated:

H_1: There exists difference in student preferences of teamwork

H_{1a}: *Pakistani students are more likely to in teams.*

H_{1b}: *Pakistani students are more satisfied in teamwork.*

H_{1c}: *Pakistani students are more productive teams.*

H_{1d}: *Slackers will reduce team performance of Pakistani students.*

This study divides in to the following sections: after introduction which is shown in section 1 above, Section 2 shows the literature review. Data source and methodology are shown in Section 3. Results are discussed in Section 4. Final section concludes the study.

Literature Review

Before discussing an idea of teamwork, we should have a common definition of a "team" first. *A team consists of two or more individuals who must interact to achieve one or more common goals that are directed toward the accomplishment of a productive outcome(s)* (Baker et al., 2005). Teams may have variety of purposes (to learn, to solve problems, to produce products, to gain acceptance) (Cohen and Baily, 1997). Conceptually a team is supposed to create synergy and progress towards a common goal. Many authors' use the term teams, while others use the term group. Teamwork is defined as "a joint action by a group of people, in which each person subordinates his or her individual interests and opinions to the unity and efficiency of the group" (Webster's online Dictionary, 2011).

Concept of teamwork has remained a centre of attraction in corporate environment from decades. Goold et al. (2008) mentioned team skills are a part of suite of professional skills that employers expect graduates to have and be able to apply in the workplace. This created a need among fresh graduates to be equipped with skills to work in a team. This focus was reflected in academics as more and more emphasis was put on students to form teams to accomplish their tasks. Students perceive that teamwork at the graduate level contributes to their future abilities in the profession by addressing their skills in the areas of collaboration, team unity and cultural diversity (Volkov, 2010). Most of the corporations are increasingly focusing on the use of teamwork tasks in order to meet up the challenges of world global competition. In the reaction of these global

challenges, the concept of teamwork has been applied in most of the organizations worldwide and is practicing over the last couples of years (Frobel and Marchington, 2005). Educators, especially business college educators recommended implementing teamwork more in classroom activities. So that more use of teamwork will be seen in most of universities around the world (Shaw, 2004). Brown (2001) indicated that group effectiveness skills like negotiation, communication, and teamwork are very much important in today's diverse classroom. According to Aycan (2002), it's really hard for team members to work with the person who they do not like or don't know. A brief review of literature reveals different ways of measuring student's preferences about effectiveness of teamwork.

Satisfaction Measures

Satisfaction is actually the measurement of happiness of the students when they are working in the teams (Keyton, 1991). If we talk about the educational objective/goal of the teamwork it should not be the judgment of the team performance, based on marks obtained on any assignment or a project, but it should have an objective of improving an individual learning when he/she participates in the project assigned to do in teams. We can not suppose that satisfaction of the students while working in the teams can be measured on the bases of marks attained by students on a work submitted that they did in teams (Volkov, 2010). A study showed that student's previous experience regarding teamwork has no impact on the level of student's satisfaction with the current teamwork. This outcome weakens the affirmation of many academic researchers that students who used to a lot of work in teams always get good at working in teams (Barbara et al, 2006).

A slacker is an idler, someone who avoids doing a work, particularly military work (Microsoft Encarta dictionary, 2009). In teams, slacker means a student who is not making a significant contribution in team efforts and not pulling an enough weight. Barbara et al, (2006) concludes that around 90% of students who are being surveyed were seemed satisfied or neutral about their teamwork, and about half of them were very satisfied.

Productivity Measures

An increasing trend of interdependence and integration of world economy has convinced the businesses to rely on teamwork as more as possible. Today business cultivates teams to improve efficiency and quality, to redesign the systems and products, to formulate strategies and to carry on firm's governance (Guzzo & Dickson, 1996). Adams (1998) suggested that effective teamwork leads an organization towards cost cutting, increases productivity and employee engagement, and also makes an organizational structure flattened. Adams (2001) concluded in his study that most of the students perceived that they were capable to perform efficiently and effectively in teams and felt that teamwork will be useful for them in order to prepare them for future workplace. Aycan (2002) obtained results that teamwork requires equality in relationships and cooperation. The results of survey conducted by Adams (2001) indicated that students believe that giving assignments in teams in the class prepared them for doing work effectively at workplace in future and this thing contributes a lot to their career development and plays a vital role in skills development as well that are necessary for success.

Teamwork and Leadership are two important components, if their characteristics match to socio-cultural framework it contributes a lot in effectiveness of any organization. But a

particular style of leadership or a particular process of teamwork may be effective for one cultural framework and may not be valid for another cultural context (Aycan, 2002). There is growing trend in UK and Pakistan of working in a team in colleges and universities. However there are few studies that have investigated student attitudes toward teamwork in Pakistan. Pineda et al. (2008) conducted a study to explore student preferences of teamwork across USA and Lithuania students and found that students from societies with different cultural values could be developing different attitudes toward teamwork from their educational experiences. Hofstede (1984) studied several national cultures on individualistic vs. collectivistic dimensions and found that cultures having high degree of collectivism could be more comfortable with group process. Straight (2004) surveyed US and Lithuanian nationals and found US nationals to be high on individualism as compared to Lithuanian nationals. This could indicate that Lithuanian had more favorable attitude towards teamwork.

Studies have shown that team-based learning (TBL) increased learner's engagement and preparedness, improved problem solving, communication and teamwork skills, and knowledge outcomes (Thompson et al., 2007). However, a systematic analysis of student experience or perception of TBL strategies has not been performed. The purpose of this study was to evaluate students' perceptions of their TBL experiences by using a questionnaire survey that elicited different modes of learning between UK and Pakistan students.

Data and methodology

This study is an explanatory in nature where we intend to find the differences between UK and Pakistani student's preference about teamwork in two different cultures. The target population of this study is students of universities that are offering management courses.

Data Collection

Data collection is collected through a structured 5 point Likert scale questionnaires containing 15 items scale where 1 represents "strongly disagree" and 5 represents "strongly agree".

Sample Size

Questionnaire is distributed among convenient sample of 733 students 436 from England and 297 from Pakistan. Response rate of the questionnaire is given in Table 1.

Table 1: Response rate of Questionnaire Received

|	Category	Sent	Received	Response rate
Gender	Male	500	412	82.4%
	Female	500	321	64.2%
Country	Pakistan	500	297	59.4%
	UK	500	436	87.2%

There are two graduate and two masters program where 57 percent of the respondents are taught in BBA, 29 percent in MBA, 10 percent of the students are doing MS and remaining four percent students are doing Bachelor of Environmental Sciences (BES). Figure 2 shows the visual representation of program wise allocation of questionnaires received.

Figure 2: Graduate and Master Degree Programs Allocation
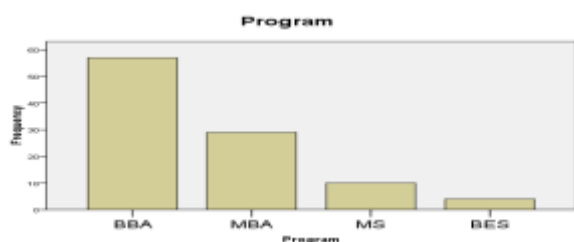
Similarly, these respondents are classified as semester wise where 14 percent of the students are in semester 1, 26 percent in semester 2, 31 percent in semester 3, 16 percent in semester 4 and 13 percent in semester 5. Figure 3 shows that the majority of the respondents are in 3rd semester having percentage of 31%.

**Figure 3: Frequency distribution of Semester**
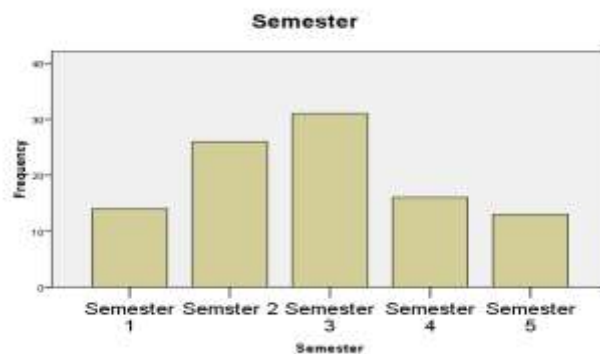
Results and discussions

The results of descriptive statistics are shown in Table 2.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Teamwork	733	1.60	5.00	3.7440	.55420
Satisfaction	733	2.00	5.00	3.6567	.75576
Productivity	733	1.60	4.60	3.9280	.90588
Slacker	733	1.00	5.00	2.8750	.90279

Result shows that teamwork has a mean value of 3.74, satisfaction has a mean of 3.65; productivity and slackers is 3.92 and 2.87 respectively. Figure 4 displays the path diagram resulting from the structural modeling analysis using AMOS. The results exhibit that all the measurements have significant values.

Figure 4: Student's Preferences of Teamwork in Pakistan
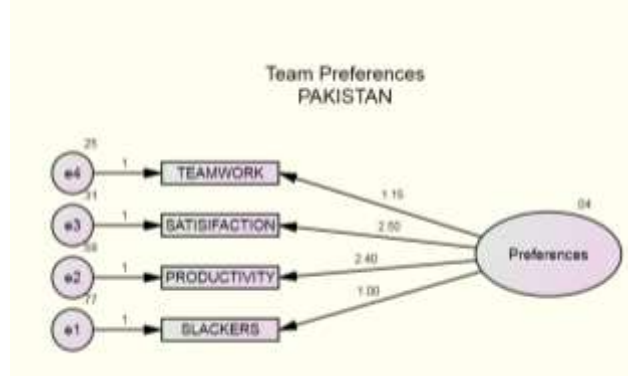
The Goodness of fit indexes for Pakistan's students is shown in Table 3. The result shows that overall the model has a satisfactory fit with GFI = .974, AGFI = .868, and CFI=.917. The RMSR is only .0297, which shows goodness of fit.

**Table 3: Goodness of fit indexes for Pakistan students**

	Values	Acceptable values
GFI	0.974	p>0.95
AGI	0.868	Near to 1
RMESA	0.297	P<0.06
NFI	0.816	Near to 1
CFI	0.917	Near to 1

It should be noted that even though all the *t*-values of the measurements are significant at 0.05 level, their weights are different. Slackers have a low *value of* 1.00, indicating that all other variables has more strong relationship with team

preferences than slackers. The results also show that the values of satisfaction 2.50 and productivity 2.40, which indicates their strong relationship with team preferences of Pakistani students. Figure 5 displays the path diagram for team preferences of UK students.

Figure 5: Student's Preferences of Teamwork in UK
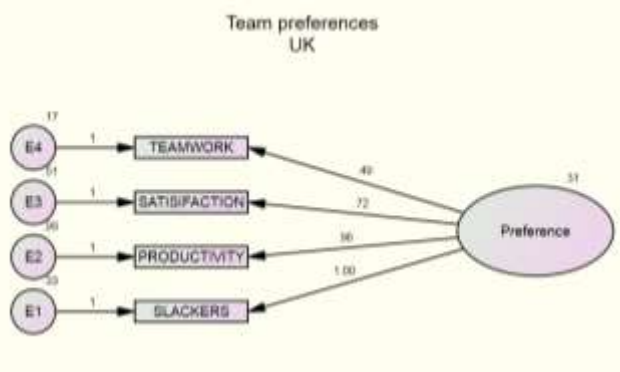
The overall goodness of fit for UK is shown in Table 4.

Table 4: Goodness of fit for UK students

	Values	Acceptable values
GFI	0.941	p>0.95
AGI	0.703	Near to 1
RMESA	0.046	P<0.06
NFI	0.790	Near to 1
CFI	0.917	Near to 1

The results exhibit that all the measurements have significant loadings to their corresponding second-order construct. Overall, the model has a satisfactory fit with GFI = .941, AGFI = .703, And CFI=.917. The RMSR is only.046, which is very good. Weighted regressions results indicated that slackers have a strong relationship with students preferences with a coefficient of 1.00 and all other values are less than this. Productivity has coefficient values of 0.96, satisfaction 0.72 and teamwork 0.49 and slackers 2.03 show higher preference for teamwork in England as compared to the Pakistani students.

Conclusion and Recommendations

In the new challenging era, the ability to work in teams is an attribute highly valued by employers. Teamwork-based assignments contributing to student's skill-set to aid their future professional careers is highly considered. With the intent to find the difference of student's preference in two different cultures; Pakistan and UK, from the analysis and interpretation of the collected data, the study concludes that in both the cultures i.e. Pakistan and UK have the differences in preference about the team work, which supports our hypothesis i.e., there exists difference in student preferences of teamwork. Students of both the cultures although, show positive response that teams are effective way to learn the management courses and increase their productivity and working in a team improve their ability to learn new things. However, Pakistan's student shows more preference for teamwork as compared to UK students, which supports our sub hypothesis.

Regarding limitations and avenues for further research, the major limitation of this study is that the 733 students were from universities. That clearly hinders our ability to generalize the results of sample to the entire students' population of both the cultures. Future research should replicate this study across more universities to access a larger sample size making the results to be more generalized.

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