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STUDENT CHARACTERISTICS AND TEAM COMPOSITION: INSIGHTS FROM 1ST SEMESTER INTERNATIONAL BUSINESS STUDENTS

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Abstract

Forming student teams is a common phenomenon in European Higher Education Institutes (HEIs). Students, who participate in teams share certain characteristics. We present insights on student teams and students' perception of team composition. The student sample belongs to 1st semester students from international business course as part of a bachelor of business administration degree programme in a Finnish HEI. This study focuses on students' characteristics that affect team composition. For the purpose of data collection, a survey was developed. Empirical data was collected at the beginning of the course. This study follows a quantitative research methodology. First, student profiling is achieved. Students' perception of team composition is explored using four variables including 'personalities', 'motivation', 'intelligence' and 'cultural factors'. The variable 'motivation' was assessed to have very high effect on the teamwork composition. Students' assessment of 'personalities' and 'cultural factors' were somewhat considerable and little to somewhat significance respectively on the teamwork composition. Further analysis of the data revealed that the female students considered the 'cultural factors' to be more significant in the teamwork composition compared to the male students. The male students assessed the 'cultural factors' to affect only a little, whereas the female students' assessment was somewhat higher for this specific variable. The results indicate that the students' profile influence their perception of team composition in the courses. This study contributes in providing insights into the practice of student learning in higher education institutes.

Keywords: Teams, teamwork, international business, team characteristics, exchange students, higher education.

1 INTRODUCTION

The team-based learning (TBL) as a teaching method was introduced in business related courses by Dr. Larry Michaelsen in the 1970s due to an increase in the number of enrolments from 40 to 120 students [1]. TBL has been considered an instructional strategy deals with developing, designing and linking a sequence of activities to achieve deep student learning and improved team development [2]. At present, TBL has become a common teaching method, which has been documented and validated in several business and management courses around the globe. The situation is the same in the European Higher Education Institutes. Several researchers argue that the potential success of TBL as a method relies mainly on high-functioning student teams [1].

Based on the propositions by Dyer [3], Salas et al. [4 p. 541] describe a team as a '*social entity formed by its members with high task interdependency and shared and valued common goals*'. A team is a group of people who share collective identity, have common objectives, and have distinct roles but interdependent outcomes [5, 6]. According to O'Neill et al. [7] teamwork refers to the performance or effectiveness as a whole and to a team's collective success. Higher Education Institutes (HEIs) face a critical issue related to the assessment of student teams [7]. Such assessment influences several pedagogical purposes. Previous research reveals that an unhealthy team undermine students' learning [8]. Similarly, a recent study [9] investigating the correlation between a team and learning highlights issues related to unpleasant learning experiences of team members that negatively affect learning outcome and grades.

Literature on team performance, see for example [10], advocates that the team composition deals with the personality, cognitive ability and motivation of team members as well as members' cultural background. Research shows that the higher the collective orientation of these variables among team members, the higher are the chances that team members would deliver the tasks and attend to the needs of other fellow team members, which leads to improved team performance [4]. The cognitive ability enables each team member to effectively plan and negotiate with other members as well as to coordinate in problem solving tasks [4]. Similarly, personal qualities and academic ability both need to

be taken into account to explore team composition and relevant team's academic achievements [11]. Research highlights the relationship between member's personality and intelligence and member's academic achievement [12, 13].

A recent study [14] highlights that student motivation is one of the most important characteristics that influence teamwork. It is a stable mental or emotional state [15]. In educational research, motivation is also viewed as a process in which goal-directed activities are sustained [15]. Motivation as an engaging factor has been explored in various learning environments. A team member's motivation enhances overall team composition; thus influencing teamwork [16]. According to Driskell et al. [17], one of the most important team composition variables is the collective orientation of the team members.

Other explorative studies [18] have investigated the influence of multi-cultural context on team performance in various learning settings. In that sense, the cultural background of team members, as a characteristic, has been investigated in terms of team composition. Previous studies highlight a need to further explore and understand the role of culture in team performance [4]. Team members' interpersonal relationships and positive attitudes influence their teamwork [2]. A study by Neumeyer and Santos [19] explores the variables, such as gender, which influence team composition. Skills that enhance teamwork are required by undergraduate students in order to prepare them for their possible future employability [20]. Hence, such skills become a relevant prerequisite for graduating students [21]. Higher education institutes are promoting team based learning in several fields of studies especially business related subjects [19].

As such, the aim of this study is to explore the characteristics of first semester students that influence the team composition during one of their courses as part of their degree program at a Finnish higher education institute. The description of the course and research design is provided in the following section. The results of the data analysis are presented. The conclusions of the study with research limitations and possible directions of future research are provided in the later section of the study.

2 METHODOLOGY

This study deals with the students' perception of teams and teamwork, which can impact their contribution and their performance in the diverse teamwork assignments given during the course "Introduction to International Business" which is part of a bachelor of business administration degree programme. The aim of this 10 ECTS course is to give the students an understanding of the general business framework by identifying the general business competencies. The study was conducted in autumn 2020 semester on three implementations of the same course.

2.1 Teamwork assignments & activities

In order to grasp a deeper knowledge of the business topics from an international perspective, the students are provided with different pedagogical methods/tools, which are based on teamwork. All along the course, and during classes, the students are divided into small groups of 3 to 6 people and are given teamwork tasks (questionnaires, debates, discussions). Besides those tasks, another pedagogical and teamwork method, called Problem Based Learning (PBL), is used during five weeks in the first part of the course, which imitates a professional meeting and places the students in the active role of problem-solvers. This method uses three phases, the first (finding the problem & the learning objectives inside the provided trigger) and last (sharing the individual research to answer the learning objectives and the problem) phases are completed by the team, the second phase individually (the research itself).

The group class is divided into three distinct teams of 12-14 people, each team guided by a Tutor/teacher. During five weeks, the students can take freely different roles (discussion leader, observer, recorder, team member). This PBL section of the course consists of 40 % of the overall course assessment. However, these tasks are graded individually. The teams are formed by the course's teachers, and assembled depending on the workload task, the students' gender, personality and nationality, to provide each team with a greater diversity.

In addition, 30 % of the course assignments are clearly designed for teamwork. New teams are formed by the course teachers based on the previous tasks' performance. For those specific assignments, part of the teamwork is done during the class, part of it during students' free time. For the first assignment, the students are divided into groups of three and must elaborate a poster representing the different steps of a business topic given. The students have a week time to divide the roles and tasks between themselves and do the research individually to come up with an elaborated, logical team poster. Their poster is then reviewed by the teacher in charge, and by all the other teams, using an assessment form.

For the second and biggest assignment, the students are divided in teams of 6-7 people and they have five weeks to plan and implement an online event, where they invite guest speakers from an area of business of their interest. During those five weeks, the students meet during their free time and keep track of their meetings and agenda via online tools (e.g. Trello) or Word document. Those documents are then reviewed weekly together with the teacher to check progress. On the 6th week, the students provide a two-hour online event, addressed to the course group, but also to the audience they invited (friends, professionals, and teachers). To assess their performance during the planning and the event itself, the students have to fill in a team work assessment form within the team, discussing various criteria, such as the communication, the roles, tasks & completion, their presence/participation at the meetings. The students must have a presentation on their event feedback addressed to the course group, the event coach-teacher and two other course teachers, who attended the online events. The three teachers assess the online events and the students' feedback presentations. These teamwork assignments are graded based on the team performance.

2.2 Quantitative study

This study follows a quantitative research methodology, for which the data has been collected via a questionnaire. The survey questionnaire has been created for this specific study. At the end of the first course's class, the participants were asked to provide some demographic data and to answer few quantitative questions related to their perception of teamwork.

Participants were previously informed that their participation to this survey would be voluntarily based and their data would stay confidential. The empirical data was collected with Webropol 3.0 Survey tool. Out of 116 participants on the course, 108 answered the survey. The sample population for this study is a group of 46 males and 62 females 1st semester students that represent 22 different nationalities.

The data was analyzed with the IBM SPSS statistical tool and Microsoft Excel. In the analysis, the assessment scale was from 'Not at all' (1) to 'Considerably' (4). Additionally, the Mann-Whitney U test was applied to find statistically significant differences between genders.

3 RESULTS

The students represent both genders. However, the proportion of female respondents is somewhat higher than that of males. (Table 1.)

Table 1. The respondents' genders

<i>Gender</i>	<i>Frequency</i>	<i>Percent</i>
Male	46	42,6 %
Female	62	57,4 %
Total	108	100,0 %

The students are relatively evenly distributed into three age groups. Majority of the respondents are over 25-year-old. (Table 2.)

Table 2. Age distribution of the respondents

<i>Age</i>	<i>Frequency</i>	<i>Percent</i>
17 - 20 years	35	32,4 %
21 - 25 years	31	28,7 %
26 years or older	42	38,9 %
Total	108	100,0 %

The male respondents are mostly 21 years or older. The youngest respondents are mostly females. (Table 3.)

Table 3. Age distribution based on the respondent's gender

Age	Gender		Total
	Male	Female	
17 - 20 years	7 15,2 %	28 45,2 %	35 32,4 %
21 - 25 years	21 45,7 %	10 16,1 %	31 28,7 %
26 year or older	18 39,1 %	24 38,7 %	42 38,9 %
Total	46 100,0 %	62 100,0 %	108 100,0 %

The students represent 22 nationalities and nine students have double nationalities. However, majority of the students are Finnish. (Table 4.)

Table 4. The respondents' nationalities

	Frequency	Percent
Finnish	68	63,0 %
European	20	18,5 %
Americas	4	3,7 %
Asia	5	4,6 %
Africa	3	2,8 %
Double nationality	9	8,3 %
Total	108	100,0 %

The students were asked to assess to what extent does 'personalities', 'motivation', 'intelligence' and 'cultural factors' affect teamwork composition. The assessment scale was from 'Not at all' (1) to 'Considerably' (4). The variable 'motivation' was assessed to have very high effect on the teamwork composition. 'Personalities' were also considered to be somewhat considerable. 'Cultural factors' were assessed to be little to somewhat significance on the teamwork composition. (Fig. 1.)

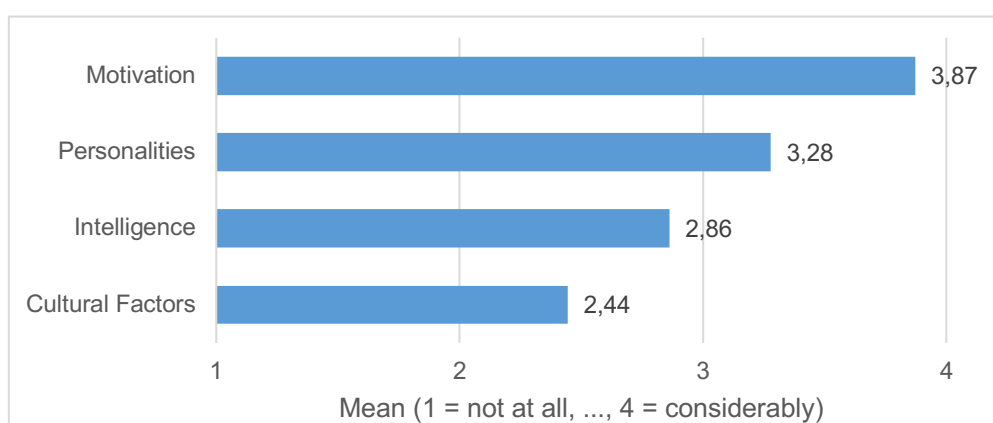


Figure 1. Means of characteristics' effect on teamwork composition.

The female students considered the 'cultural factors' to be more significant in the teamwork composition compared to the male students ($U = 1789.00$, $Sig = 0.017$). The male students assessed the 'cultural factors' to affect only a little, whereas the female students' assessment was somewhat higher (Fig. 2).

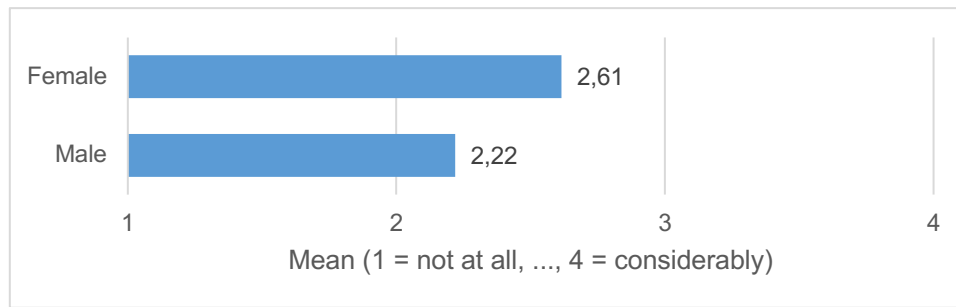


Figure 2. Cultural factors' effect on teamwork composition by gender.

The results of the study are summarized in the following section.

4 CONCLUSIONS

The aim of this study is to explore the characteristics of first semester students that influence the team composition during one of their courses as part of their degree program at a Finnish higher education institute. Using a predefined assessment scale, the students were asked to assess to what extent do 'personalities', 'motivation', 'intelligence' and 'cultural factors' affect teamwork composition. The variable 'motivation' was assessed to have very high effect on the teamwork composition. Additionally, students assessed the variable 'personalities' also to be somewhat considerable. On the other hand, the variable, 'cultural factors' was assessed to be little to somewhat significance on the teamwork composition. Further analysis of the data revealed that the female students considered the 'cultural factors' to be more significant in the teamwork composition compared to the male students. The male students assessed the 'cultural factors' to affect only a little, whereas the female students' assessment was somewhat higher for this specific variable. The study provides insights into students' characteristics that influence student team composition during first semester of their undergraduate degree studies at a Finnish higher education institute. Attention should be paid in generalizing the results of the study due to limited empirical data. It is recommended that a larger data should be used to further explore the effects of student characteristics on team composition and teamwork.

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