

# THE IMPACT OF GROUP FORMATION METHOD (STUDENT-SELECTED VS. TEACHER-ASSIGNED) ON GROUP DYNAMICS AND OUTCOME

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## Abstract

In today's business and social world, the ability of an individual to cooperate effectively and efficiently with others is a mandatory skill, not only a necessary one. It is important for a student to acquire this ability. For this reason business schools have reacted toward this environment by increasing the number of students' teamwork experiences. In addition, the adequate group composition is considered a key factor for a successful teamwork. Therefore, it is important for instructors to be aware of the elements that can influence the students' teamwork experience. The aim of this study was to examine whether the group formation method, namely student-selected vs. teacher-assigned, affects team members expectations, group dynamics, outcomes and students' Attitudes toward the group experience. In line with its experimental comparison group design, the students of Scientific Master in Business Administration (N=39) of Faculty of Economy/University of Tirana, participated in this study over one academic semester, in one of the subjects that they study. The comparison was made between the traditional self-selected method versus the teacher-assigned method, which indeed was a non-tested before method in this context, specifically "Getting to know you" method. Half of the students (N=20) were required to self-select their working partners, while the other part (N=19) were assigned into groups by the instructor using the abovementioned method. The qualitative data gathered from the initially fulfilled form were analyzed by the author of the study in order to compose groups, as the method suggests. Meanwhile the quantitative data, obtained from students' responses of the two other questionnaires, underwent an independent t-test analysis. The results indicate that method of assigning students to groups has a moderate influence on members' expectations, attitudes and viability, but there are no statistically significant differences in terms of group dynamics. Even though these statistically significant differences favor the self-selected method, they are insufficient to conclude that this is the best method. Another important conclusion to mention is that students' initially resist to teacher-assignment method, but then the adaption phase occurs, and they show better group dynamics.

**Keywords:** *student teams, group selection methods, group dynamics, group outcome*

## Introduction

In the modern world, the use of groups in the organization has become so common that is considered that groups can be found anywhere (Chapman K. J., Meuter, Toy, & Wright, 2010). Organizations increasingly rely on groups to achieve their goals and objectives (Sundstrom, Meuse, & Futrell, 1990). The use of working groups is considered as very important for the

organization (Guzzo & Dickson, 1996). The ability to work effectively in a team, it is not just a sufficient requirement for the success of a student, but it is a necessity (Johnson & Johnson, 1989; Stevens & Campion, 1994; Aube & Rousseau, 2005). In today's business environment, group performance is consistently exceeding individual performance in fulfilling complex tasks, this is particularly true for those tasks that require a variety of skills, experience, and opinions to be accomplished (Robles, 2012). The ability to work in groups is the most common criteria demanded by recruiters, due to the massive use of groups as a way of working in an organization (Kozlowski & Ilgen, 2006). Moreover, Kozlowski and Ilgen (2006) saw the group as a part of everyday life, according to them, the success of working together is important for the wellbeing of a wide range of social functions. Precisely for these reasons, we are entitled to believe that for a student, the creation and acquisition of the ability to work in a team is important.

The use of small work groups has grown fast these past two decades (Hassaskhah & Mozaffari, 2015). Business schools have responded to this environment by adding the number of teamwork experiences that students have in throughout the academic years of study. As evidenced in the study of Chapman and Van Auken (2001), performed in 32 business schools, the students had been part of the groups, at least in eight different projects during the academic years. The purpose of activating students in working groups was for them to learn about communication, collaboration, cooperation and compromise (Kidder & Bowes-Sperry, 2012; Alexander & Stone, 1997) and in the same time, to adapt them to labor requirements (Blowers, 2003). It seems like, to succeed in the business environment, students must show positive attitude towards teamwork. Instructors play a key role, because they can lead students throughout this positive attitude, by giving them the chance to experience positive situations in the group, in this way they can also exhibit productive behavior in their group of tasks (Bacon, Stewart, & Silver, 1999; Chapman & Auken, 2001; Kidder & Bowes-Sperry, 2012; Blowers, 2003).

While, hard skills are the technical expertise and the required knowledge to do the job, in soft skills spectrum there are involved interpersonal qualities, also known as human skill and personal qualities that an individual possesses (Schulz, 2008; Robles, 2012). The teamwork ability is considered as a soft skill (Robles, 2012). Various authors (Azim, Gale, Lawlor-Wright, Kirkham, Khan, & Alam, 2010; Schulz, 2008; Bancino & Zevalkink, 2007) have studied the importance of soft skills for students, both during and after school. Soft skills play an important role in shaping an individual's personality (Schulz, 2008). In fact they are very important and ranked as the most preferred ability for potential employees in many organizations. Employers point out that instructor should teach their students how to collaborate with others in the workplace (Schulz, 2008). In recent decades, the ability to work in groups is one of the most wanted qualities in the labor market (Hassaskhah & Mozaffari, 2015). Recruiters want their potential employer to have teamwork skills; a student who has these skills automatically has an advantage over those who don't. How should be a group organized, in order to assume that the student has actually acquired this skill? Russell (2010) warns about this fact, he suggests that simply assigning students to groups doesn't guarantee the expected benefits.

A number of issues may arise, but in this study the focus is on the group selection method. According Huxham & Land (2010), two ways can be used to assign students to groups, according to their preferences or by the instructor. Chapman et al. (2006) in their study evidenced that if students are left to their own choice of their groups, they tend to choose based on friendship, those

with whom they feel comfortable, other authors (Ku et al., 2013; Oakley et al., 2004) have also reached the same conclusions. Among the methods of assigning students to groups, is the random method, by which every student in the class has an equal probability to be part of a group (Chapman K. J., Meuter, Toy, & Wright, 2006). This method has its disadvantages and this is why instructors are trying to provide better ways of assigning students in groups, one of which is the method proposed by Oakley et al. (2004). This indeed tries to compensate some of the disadvantages of the random method. Since heterogeneity is proved (Muller, 1989) to have a positive impact on group effectiveness, in this study was used the "Getting to know you" method, aimed to create heterogenic groups. This method, proposed by Oakley et al. (2004) is compared with self-selection method in order to identify which is the best team, in terms of group dynamics and effectiveness.

## **Background**

Literature that reviews the impact of group formation method on their effectiveness, is divided into two types. Some articles are focused mainly on the effectiveness of a single method (example: the method of assigning students to groups by the instructor, or self-select assignment to groups) while others have taken comparative steps to assess which method is best. In the same time, group effectiveness itself has been analyzed from two different perspectives. There are studies (Bacon, Stewart, & Silver, 1999; Chapman K. J., Meuter, Toy, & Wright, 2006; Hilton & Phillips, 2010; Rusell, 2010; Greenlee & Karanxha, 2010) that have investigated the effectiveness in terms of group dynamics, which are related to group's internal characteristics, and include elements such as group collaboration, trust, acceptance, commitment and other elements that concern teamwork. On the other hand, there are studies (Mushtaq, Murtaza, Rashid, & Khalid, 2013; Mahenthiran & Rouse, 2000) that have measured the performance based on the final grade. Both types bring contradictory results, some are in favor of one method, others to another, there is no consistency, or a best model.

Studies (Bacon, Stewart, & Anderson, 2001; Blowers, 2003; Hilton & Phillips, 2010; Huxham & Land, 2010) suggest that most instructors use one of the two most common methods for assigning students to groups: self-selection method or random assignment method. A number of other methods can be used, such as those offered by Blowers (2003), Oakley et al. (2004), Curseu et al. (2010), and others. One method could be creating teams based on personal characteristics or personality, as suggested by Dillon (2010) in his study. Another alternative can be the hybrid approach, in which the instructor initially allows students who want to work together, to do this thing, and assigns the other part of the group randomly, or by following any effective model suggested by studies or created by the teacher (Chapman K. J., Meuter, Toy, & Wright, 2006). Despite these alternatives, most of the instructors and lecturers claim that they face difficulties when using group-work projects (Huxham & Land, 2010). The most common issue is the failure of people to collaborate efficiently.

## **Self-selection method**

The self-selection method of group assignment allows students to choose with whom they want to collaborate for teamwork and this is one of the most common ways of assigning students to groups (Bacon, Stewart, & Anderson, 2001). This method is simple to follow, there are some studies (Bacon, Stewart, & Silver, 1999; Mello J. A., 1993; Chapman K. J., Meuter, Toy, & Wright, 2006; Rusell, 2010; Hassaskhah & Mozaffari, 2015) supporting the fact that this method stimulates good group dynamics and better performance, also the shift in the development stages is accelerated. Chapman et al. (2006) found that students who knew each other well before the start of the semester were performing better. Anyway, this friendship could be problematic, since it often leads to groups with low diversity (Bacon, Stewart, & Anderson, 2001; Buckenmyer, 2010), which according to the studies, can have an impact on group performance (Bacon, Stewart, & Stewart-Belle, 1998). Also, this can lead to some students feeling left out. Even though the instructor can assign them to groups they may find it difficult to enter into the already existing social network. This may reflect negatively on group dynamics (Bacon, Stewart, & Anderson, 2001). Students tend to choose each other based on similar skills and level of motivation, the study of Bacon et al. (1998) showed that the self-selected members of the groups had similar levels of skills.

### **Teacher-assignment method**

This method can use a number of approaches to compose groups. Bacon et al. (2001), highlighted that one way might be the use of questionnaires to collect information on religious diversity, language, age, different experiences, creativity, and based on these answers they can compose groups. Rollier (1992), recommended another approach, which has to do with the identification of the most "powerful" students in class and then assigning at least one such student in each group, although, of course, he admits that is difficult to define the skills indicators. As it can be understood, the basis of this method is the facilitator, which in this case is the instructor; he interferes pursuing one or several approaches aiming to create effective teams. Oakley et. al. (2004) offer a guide for teachers, so that they can manage tasks performed in the group. These suggestions are suitable mostly in the cases where there are no guides on ways how to enable students to work in groups. In this study were offered suggestions also about the optimal number of teams, the criteria to be considered on composing groups, and the procedures for assigning and deforming teams. "*Getting to know you*" is one of the proposed techniques and is used on conducting this study.

### ***"Getting to know you" method***

The necessary information to compose teams can be provided using the form "Getting to know you" which is filled by students. In its original version, this form provides information about the level of skills and their unavailable time for working in groups. But in this case, considering the organization of the Faculty where the study was conducted, which differs from other countries (example: most of the courses are mandatory, not optional), there are considered also other aspects. Specifically, in this form were considered the following elements: (i) demographic data; (ii) the branch of Bachelor and Master's degree; (iii) their performance during Bachelor studies and during the first semester of Master studies (iv) whether or not they are currently employed; (v)

commitment (measured by the reason they chose to study in this branch); (vi) the gap between expectations and reality. The grades are considered as a good measure of skill. From a student perspective, asking for GPA is a normal thing that every instructor makes on the first day of the course (Oakley, Felder, Brent, & Elhadj, 2004). The students, who do not want to tell their GPA, are randomly distributed in the squad.

### **Students' resistance**

When students are told to work in groups, especially in cases where teamwork is a not traditional way, some may strongly oppose. Others will want to work with friends, relatives, roommates, and join the chorus of opponents when informed that their request is not accepted (Oakley, Felder, Brent, & Elhadj, 2004). This is why the reason their teacher has decided to use a specific approach for composing teams should be clearly explained to students. They should emphasize the advantages and benefits they can have, as students and as future employees. Anyway, researchers (Driskell & Salas, 1992) suggest that this attitude can be influenced by their preference for teamwork in general. There are students who simply do not enjoy teamwork. On the contrary they struggle a lot being part of the interpersonal relationships created (Connerley & Mael, 2001). It is important for the instructor to understand the source of this resistance.

## **Method**

### **Participants**

The setting for this study was the Faculty of Economy, part of University of Tirana, located at the capital of Albania. This faculty has six departments (Management; Mathematics-Statistics-Informatics; Economics; Finance; Marketing; Accounting). For the sample selection was followed a non-probabilistic approach, but was used an intentional selection, which is the most common technique of sample selection (Marshall, 1996). Students of "Scientific Master in Business Administration" participated over one academic semester, in one of the subjects that they study. The sample size was 39 students<sup>1</sup> (77% females and 23% males).

### **Procedure of data collection**

The whole procedure followed in this study went through some phases as suggested from Oakley et. al (2004). Everything started with the collection of the information throughout "Getting to know you" form, in the same time students were asked if it was any person in class with whom they didn't want to work. In that same day, half of the students were required to self-select their working partners. They were chosen randomly and were assigned in eight groups, four self-selected and four teacher-assigned. Next step, was measuring their expectations related to this collaboration, that's why this questionnaire was issued the day after, so that they could have enough time to process the information. Then, students continued their classes as normally,

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<sup>1</sup> All the students of this class participated in this study.

without any interference from the author. Five weeks later, after finishing their projects, the final questionnaire was filled, which intended to measure the performance of the study variables. It should be emphasized that Oakley et al. (2004), suggest that groups can be de-formed after four weeks, and can be composed other ones, this is why five weeks were considered as enough for the creation of a measurable experience.

## Instruments

Respondents were asked to rate the success of their team on various dimensions pertaining to team functioning and performance, in two questionnaires and one form. The first one measured self-efficacy (the expectations), the second one measured each element of group dynamics and output. The questionnaires were developed by the author, based in different researches. Each group member was asked to provide Likert-scale ratings (5 = “Strongly Agree”; 4 = “Agree”; 3 = “Neutral”; 2 = “Disagree”; 1 = “Strongly Disagree”) in both administered questionnaires.

The heterogeneity level was evaluated following what Oakley et al. (2004) suggestions and based to their guides were made the four teacher-assigned team compositions. In their study, Guzzo et al. (1993) showed that self-efficacy is a measurable attribute, which can predict teams’ performance. Ten items were used to evaluate self-efficacy (or potency), some items to mention were: (i) Enthusiastic about working together; (ii) Confidence in group members’ abilities; (iii) Took interest in each other; (iv) Expectations about members commitment, etc. This questionnaire was built upon some research (Werner & Lester, 2001; Chapman K. J., Meuter, Toy, & Wright, 2006) findings, and had a .830 Cronbach alpha, which suggests that this is a reliable questionnaire (Field, 2009).

In the final questionnaire, which measured group dynamics and outcome, were used a total of 30 items, and its reliability resulted .773, which again shows that was a reliable questionnaire. Most of these items were adapted from previous researches on group dynamics and outcomes (Chapman K. J., Meuter, Toy, & Wright, 2006; Chapman & Auken, 2001; Hilton & Phillips, 2010; Greenlee & Karanxha, 2010; Werner & Lester, 2001; Chapman K. J., Meuter, Toy, & Wright, 2010; Aube & Rousseau, 2005; Hamer & O’Keefe, 2013). Participation, as an basic characteristic of effective teams (Greenlee & Karanxha, 2010), intended to measure the level of students perceptions related to suggesting new ideas, participation in discussions, an active behavior, etc. This variable was measured by six items, which were abstracted mainly from two (Greenlee & Karanxha, 2010; Hilton & Phillips, 2010) studies.

Another variable was the workload sharing, which relates to an equal sharing of assignments between team members, for its measurement there were used four questions, which found support from many authors (Chapman K. J., Meuter, Toy, & Wright, 2006; Werner & Lester, 2001; Hilton & Phillips, 2010; Chapman & Auken, 2001). For supporting behavior, which has to do with the level of positive interaction between members, there were used four questions, mainly used or suggested by some interesting studies (Werner & Lester, 2001; Hilton & Phillips, 2010; Aube & Rousseau, 2005). Communication and Managing Conflicts, were measured using five questions abstracted from three (Chapman K. J., Meuter, Toy, & Wright, 2006; Chapman K. J., Meuter, Toy, & Wright, 2010; Greenlee & Karanxha, 2010) studies, meanwhile the only one question measuring collaboration levels was build based on Greenlee & Karanxha (2010)

suggestions. Other eight items that measured members' attitudes toward teamwork experience were supported from other studies (Ku, Tseng, & Akarasriworn, 2013; Chapman K. J., Meuter, Toy, & Wright, 2010; Chapman & Auken, 2001; Hamer & O'Keefe, 2013). In table 1, there are demonstrated all the above mentioned items with their respective Cronbach' Alphas.

**Table 1: Questionnaire items and its reliability**

<b>Variable</b>	<b>No. i items</b>	<b>Cronbach' Alpha</b>
Participation	6	.709
Workload Sharing	4	.637
Supportive Behavior	4	.778
Communication and Managing Conflicts	5	.669
Collaboration	1	-
Attitude toward teamwork experience	8	.778
Viability	2	.895

Group projects grade assessment was considered as an output measurer. The assignments that were executed in teams were evaluated in scores by the instructor, scores which normally vary from zero to ten in this program of study.

## Data analysis and Results

The main aim of this research was to understand if there were any differences between self-selected teams and teacher-assigned ones, regarding to a variety of group dynamics, attitudes and outcomes. It was assumed that differences will be found regarding to self-efficacy, was expected that students in teacher-assigned teams would rank lower levels of self-efficacy because of their tendency to resist to change. To test these differences, students were asked regarding to enthusiasm to work together in that team, confidence in members' abilities, possible disagreements, etc.

An independent t-test analysis (using IBM SPSS Statistics 20) was conducted in order to compare the two applied methods. By conducting this analysis the hypothesis that the two means of populations were different (or otherwise equal) was tested. Prior than doing an independent test, the four assumptions of parametric data (Field, 2009, p. 133) were proved to be met. By comparing means between two samples, independent t-test showed that there some differences regarding to their self-efficacy. Students of self-selected teams ( $N = 18$ )<sup>2</sup> showed higher enthusiasm to work together  $M=4.33$  ( $SD=.594$ ) in comparison with students in teacher-assigned teams ( $N=19$ ) who showed lower levels of enthusiasm  $M=3.47$  ( $SD=1.073$ ). To test the hypothesis that differences in enthusiasm were statistically significant, an independent t-test was applied, and this test showed an important statistical effect  $t(35) = 2.99$ ,  $p = .005$ . So, self-selected teams had a higher enthusiasm comparing to teacher-assigned teams.

<sup>2</sup> In total they were 20 students assigned in four self-selected teas, but two students didn't respond to this questionnaire.

In the same way, analysis was made for other items, and it resulted that self-selected teams had higher levels of: Enthusiasm about working together; Confidence in group members' abilities; Took interest in each other; Expectations about members' commitment; No disagreements expected; Expected an equal workload sharing. All were associated with a statistically significant effect ( $p < .10$ ), as shown in table 2. So, it can be said that initially students of self-selected teams have a high enthusiasm about working together, they expect that their workload is shared equally, they like team members, they do not expect any disagreements, and they think that members will be committed. This is a normal reaction, because they usually select each other based on friendship (Chapman K. J., Meuter, Toy, & Wright, 2006; Donald R. Bacon, 1998).

**Table 2: Mean Responses on Self-Efficacy Measures Based on Method of Group Formation**

<b>Self-Efficacy measures<sup>a</sup></b>	<b>Self-Selected</b>	<b>Teacher-Assigned</b>
Enthusiastic about collaborating	4.33	3.47**
Confident in team members' abilities	4.39	3.63*
Liking team members'	4.56	3.63**
Members' commitment to accomplish assignments	4.22	3.58*
Comfortable to show myself in this group	4.61	4.58
Confident that meeting times will be used effectively	4.22	3.79
No conflicts with team members'	4.39	4.05*
Worried about my grade on group assignments	3.44	3.16
Fair workload sharing between team members'	4.00	3.32*

<sup>a</sup> Ratings are based on a 5-point scale where 5 = strongly agree and 1 = strongly disagree.

Significance of difference between teacher-assigned and self-selected groups: \* $p \leq .10$ , \*\* $p \leq .05$ .

### **Impact of Group Formation Method on Group Dynamics**

The data presented in Table 3 suggest that the method of group assignment didn't influence group dynamics. Compared to self-selected teams, students of teacher-assigned teams had higher participation in executing their projects. Regarding workload sharing, teacher-assigned teams, had higher mean responses. So, they perceive an equal workload sharing ( $M = 3.89$ ), higher than in self-selected teams ( $M = 3.7$ ). Actually their expectations regarding to workload share in the first questionnaire were opposite. Initially, self-selected teams expected an equal workload sharing ( $M = 4$ ), when teacher-assigned teams rated lower responses ( $M = 3.32$ ). Regarding to social support, there are no big differences in mean responses of the two methods, anyways self-selected teams rank these elements higher. This is expected and explainable by their pre-existing friendly relationship. But, it is important to note that these aren't statistically significant differences ( $p > .10$ ).



**Table 3: Mean Responses on Group Dynamic Measures Based on Method of Group Formation**

<b>Group Dynamics measures<sup>a</sup></b>	<b>Self-Selected</b>	<b>Teacher-Assigned</b>
Influence on the way assignments were completed	4.00	4.11
Active during teams' meetings	4.15	4.37
Participation during teams' discussions	4.20	4.42
Members listened each other carefully	4.00	4.26
Lack of motivation to collaborate effectively	2.47	2.47
Low participation of other team members	3.95	4.37
No need to complete work of other members	3.55	4.00
Fair workload sharing between team members'	3.70	3.89
Effective use of the available time	3.60	3.68
Had to complete the greatest part of work	2.15	2.11
Members helped each other on completing assignments	4.10	3.84
Urged each other to realize a quality work	4.15	4.05
Members recognize and appreciate each other's contribution	3.95	4.05
Positive and friendly environment in team	4.00	3.84
Team had some conflicts	2.50	2.11
Achieved harmony by managing conflicts effectively	4.05	3.94
Encouraged to express their point of view	4.05	4.28
Achieved harmony by avoiding conflicts	2.30	2.47
Good communication with each other	4.10	4.05
Could have worked together better	3.37	3.42

<sup>a</sup> Ratings are based on a 5-point scale where 5 = strongly agree and 1 = strongly disagree.

Significance of difference between teacher-assigned and self-selected groups: \* $p \leq .10$ , \*\* $p \leq .05$ .

Based on these results it can be said that initially students will have the tendency to doubt the chances to succeed, regarding to group dynamics, if they are told that will work in teacher assigned teams. However, in the end these perceptions change, even though this study can't prove these differences, is important to note that students show different perceptions in their responses.

### **Impact of Group Formation Method on Outcomes**

Group formation method had a moderate effect in students' attitude toward teamwork experience. Students in elf-selected teams (N=20) showed better attitudes toward assignments quality  $M=4.35$  ( $SD=.587$ ) compared to students in teacher-assigned teams (N=19) which showed lower mean responses  $M=3.74$  ( $SD=.933$ ). These were statistically significant differences  $t(37) = 2/496$ ,  $p = .018$ . In the same time, there were statistically significant differences also in students' perceptions regarding to their effectiveness, in which self-selected teams showed more positive attitudes.

**Table 4: Mean Responses on Students' Attitude Measures Based on Method of Group Formation**

<b>Students' Attitudes measures<sup>a</sup></b>	<b>Self-Selected</b>	<b>Teacher-Assigned</b>
Good experience	4.20	4.11
Satisfied with project grades	3.75	3.47
Good quality of assignments	4.35	3.74**
Effectiveness of group work	4.20	3.68*
Enjoyed the way of collaboration	4.05	3.84
Could have learned more if worked individually	2.29	2.44
Useful experience	4.05	3.89
Groups are an effective tool to learn with	3.95	3.74

<sup>a</sup> Ratings are based on a 5-point scale where 5 = strongly agree and 1 = strongly disagree.

Significance of difference between teacher-assigned and self-selected groups: \*p ≤ .10, \*\*p ≤ .05.

Regarding to viability, mean responses are consistent with group dynamics and students' attitudes. So, there are statistically significant differences in favor of self-selected method. Students show willingness to be a part of this team until the end of semester; actually both want to continue collaborating. Anyway, self-selected students want also to work with each other in other subjects too.

**Table 5: Mean Responses on Viability Measures Based on Method of Group Formation**

<b>Viability measures<sup>a</sup></b>	<b>Self-Selected</b>	<b>Teacher-Assigned</b>
Willingness to be part of this group until the end of this semester	3.95	3.53**
Willingness to be part of this group in other subjects too	3.75	2.89**

<sup>a</sup> Ratings are based on a 5-point scale where 5 = strongly agree and 1 = strongly disagree.

Significance of difference between teacher-assigned and self-selected groups: \*p ≤ .10, \*\*p ≤ .05.

Another important measurer it was instructors' evaluation in scores for the projects that teams executed. It is interesting to note that even though teacher-assigned teams have had a higher mean score M=8.342 compared to self-selected teams M = 8.125, still isn't a big difference. Also, when analyzing the best group in terms of instructors' evaluations, it results that the best group is one of teacher-assigned teams, anyways there isn't enough information to show if this happened because of group formation method.

## Conclusions and Recommendations

When comparing the two questionnaire responses of the two teams can be noted that they didn't rank their answers in a consistent way. In the questionnaire of self-efficacy, in which there we partially measured the same elements as in the final questionnaire, the differences were in favor of self-selected groups, while at the end, although accompanied with some divergences, means were in favor of the teacher-assignment teams. Initially there was a tendency of certain teacher-assigned groups to resist, showing lower expectations. These findings confirm those of Hilton and

Philips (2010), showing that the initial perception toward the method of group formation (in this case, toward the model "Getting to know you") seems negative, but over time becomes positive.

Regarding group dynamics, teacher-assigned teams consistently ranked high levels of group dynamics. They ranked high participation levels of themselves as well as other members. Also, self-selected teams converge toward agreeing about high participation, but the ranking level of answers is higher from the self-selected groups. It is interesting how the students of teacher-assigned teams perceived equal workload sharing, when in fact it is expected that students who know each other well, not to have any problems with workload sharing. However, other factors that this study did not consider may have influenced. As regards the supporting behavior, there are no big differences in the average of the answers of the two groups. The managing conflicts variable, does not tell us much, either in terms of differences or in terms of what was intended to be measured. Both groups show that there were no disagreements.

Even though with moderate differences, the results converge with those of Chapman et al. (2006). In fact these authors favor and suggest students' self-selection, since according to them they achieve a better harmony and good dynamics. About the effectiveness of groups, as a total summary of the three variables that measure it, can be said that self-selected groups have a more positive reaction in a moderated way. When adding instructors' evaluation, it turns out a higher average for the groups according to the model, but with a slight difference. Therefore, it can be concluded that there are no significant differences between groups regarding their effectiveness. If studies (Hassaskhah & Mozaffari, 2015; Rusell, 2010; Chapman K. J., Meuter, Toy, & Wright, 2006) have shown that in fact the experience of self-selected students, generally turns out to be *strongly* more satisfactory, why didn't it happen in this case? One possible explanation may be the relationship orientation, because of friendships that already exist, and maybe these people spend more time being socialized with each other, rather than focusing on academic tasks (Hassaskhah & Mozaffari, 2015; Hilton & Phillips, 2010).

The best group according to the instructors' evaluations turns out to be one of the groups created with the method "Getting to know you", anyways it cannot be certainly said whether this result can be attributed to heterogeneity. By analyzing their answers about heterogeneity, actually turns out that in self-selected groups, only one group has levels of heterogeneity comparable to teacher-assigned teams, others are more homogeneous, especially regarding to the reason they chose this branch, and regarding to personal preferences (sports, music, movies, etc.). When analyzing the score evaluation from the instructor, this group belongs to average levels. Therefore, we cannot attribute the results of the best group to the effects of heterogeneity, at least not only to that variable. The best group shows much higher levels, almost maximal, to all answers regarding group dynamics: participation, workload share, effective communication and managing conflict, also higher levels of cooperation. This shows that within their group exist almost identical perceptions, in their dynamics and their attitudes as well. Interestingly, among the four teacher-assigned teams, these students generally had higher and positive expectations. Following the same logic, one could say that this happened because they haven't resisted to this change, however, other factors with individual or environmental nature may have also affected (temperament, task oriented, etc.). The best group, in terms of scores, seems to be the best in terms of other elements too, they want to continue their cooperation until the end of the semester ( $M = 4.80$ ) and they would like to be part of the same group ( $M = 4.00$ ) on other subjects too. Finally, although it turns

out that the self-selected groups generally had a more positive experience than specific groups according to the model, we cannot conclude that self-selected method is superior to the method according to the model.

Based on these conclusions, regarding to group formation method it can be recommended that instructors should use the method that fits more the objectives and the subjects' content. The results suggest that self-appointed groups may reach harmony, but teacher-assigned teams are the ones that face real challenges. Beside the fact they will have to get used to the new situation, may also face challenges in communication, in the social aspect or in achieving the goals they have. Let's not forget, that students face such challenges not only in the day-by-day life, but most probably are challenges that will accompany them in the labor market. Although the professors' purpose when allowing students to self-select is for students to pass with ease and harmony their teamwork experiences, we cannot forget that the market, which awaits them outside the doors of the University, is not so friendly. Therefore, students need to face the challenges before giving up in the real market.

### **Limitations of the study**

This research has some limitations. First of all, the variables were studied only from the perspective of the participants. Also, the impact of the independent variable on the dependent variables wasn't measured. Another limitation might have been the way the students were distributed in groups, because the chosen method is subjective enough. There is no mathematical model, or a suggested technique for the formation of groups according to the model. The *sample* was a major limitation, as is only one of the eight by then existing branches of Master of Science in the Faculty of Economics. There could have been used at least two branches, in order to possible comparisons between them. The variable "Group projects score assessments" is another limitation. Finally, evaluations were considered only at group levels, their individual performance wasn't included due to the inability to ensure this information.

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