

Multicultural Student Group Work: A Case Study of Exploration of Constraints Felt by Students

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Abstract. This study aims to examine the constraints on group work of multicultural students in higher education and the differences between students from different cultural backgrounds in and how they perceive the importance of dealing with obstacles in group work. The survey was used with 19 items with 141 students as respondents at different levels at Pakuan University. Students were asked to fill out a questionnaire with a Likert scale (from 1 to 5) about the importance of facing certain obstacles in group work. Constraints for students in groups were analyzed using a scale centered on cross-sectoral and cultural-related constraints in multicultural group work identified in the exploratory factor analysis. Test analysis using one-way analysis of variance (ANOVA) was performed based on individualist cultural dimensions. The results showed that students' cultural background (individualist-collectivist dimension) influenced their perception of the importance of facing obstacles in group work.

Keywords: *multicultural, group work*

I. INTRODUCTION

The number or population of students around the world is increasingly multicultural. College graduates will work in a group both nationally and internationally as part of their expertise to face their future. Therefore, the ability to work effectively in culturally heterogeneous groups must be an integral part of student competence. However, combining group work in higher education, particularly in multicultural settings, creates both challenges (in terms of: coordinating communication skills, behavior patterns, and intercultural competencies of different students) and potential (in terms of sharing knowledge of diverse cultures). Previous research has shown that when designing and implementing forms of collaborative learning [1]; [2]; [3]; [4]; [5]; [6]. Meanwhile, one of the pillars of the current higher education system is group work, which can create obstacles for national and international students [7]; [8]; [9], knowledge about what barriers are inherent in learning groups in academia and how culturally diverse students perceive these barriers is still lacking. Over the past 30 years, much research has been devoted to providing valuable insights into multicultural group work as: a collaborative approach to learning. The scientific literature finds positive research on the diversity of group work in terms of (a) shifting to a more global and less ethnocentric approach to higher education; (b) prepare students to work effectively in culturally heterogeneous groups in both academic and professional environments; (c) sharing of culturally diverse knowledge and development of intercultural competence [10]; [11]

However, several studies have pointed to the ineffectiveness of student groups in general [12] and multicultural student group work in particular [8]; [11]. Despite these recent findings, group work of culturally diverse students can be positive and beneficial if the differences and similarities that arise are managed properly

[13]. Therefore, it is important to have a better scientific understanding of cross-cultural cooperation when working in culturally heterogeneous groups of students. In this context, this study aims to explore the constraints faced by students from different cultural backgrounds in higher education. Gaining insight into these constraints will help educators and instructional designers improve learning environments for culturally heterogeneous groups in higher education. In addition, to effectively manage.

Multicultural group work is needed to find out the underlying causes of cultural conflicts and provide solutions, as well as enable groups to work together to face obstacles in the future [14]. This study has a dual purpose: (1) to identify the constraints that occur in multicultural learning groups in higher education and (2) to examine the extent to which culturally diverse students perceive different challenges to be important in groups. in higher education. This research is structured as follows: first, the obstacles faced by students in multicultural group work are explored based on previous research studies. Second, this theoretical framework provides a basis for examining in-group constraints in higher education as perceived by students with different cultural backgrounds.

Multicultural student group work can be defined as the collaboration of two or more individuals from different (national) cultural backgrounds, who have been assigned interdependent tasks and are jointly responsible for the end result, who see themselves and are seen by others as collective unit. embedded in the academic environment and who manage their relationships within specific educational institutions [8].

Based on the research results of [14], it can be said that some constraints are unique. According to [14] monocultural and multicultural groups share obstacles related to task planning and coordination, problem solving and decision making, conflict management, sticking to schedules, and agreeing on acceptable group behavior, multicultural "but" groups must overcome additional layers of complexity due to

culturally related differences". Following the line of reasoning of [14] students who work in multicultural groups have to face both challenges. Based on the literature, it should be noted that most of the studies on group work were carried out in the field of education. Despite the fact that students are multicultural, Groups within a university setting function according to their own intrinsic nature and special conditions, students can still face challenges that are unique to professional environments. Thus, the current study will focus on group constraints in the context of higher education. According to Salas, Stagl, Burke, and Goodwin (2012), more than 130 conceptual models and group frameworks can be found in the literature. Although the phenomenon of group work has been viewed from many perspectives, there are three main studies in the scientific literature on the constraints that may occur in multicultural groups.

Research studies on group work have focused on: (1) organizational level factors [15]; [16]; (2) group-level factors [17], [18]; [19]; [11]; and (3) group climate, group effectiveness criteria, group performance [20]. Research studies addressing the constraints faced particularly in multicultural groups have mostly focused on: (1) how cultural differences of group members affect group work performance [14]; [21]; [22]; [23]; [11], and (2) how the behavioral dimensions of group members' culture influence their understanding of collaborative situations and their actual actions/behaviors in collaborative situations.

The issue of the impact of cultural diversity on the process of group work is very interesting to study. In most of the cultural value frameworks studied, the individualist-collectivist dimension has proven to be one of the most powerful concepts. Research that replicates and supports the robustness and validity of Hofstede's cultural dimensions is large in scope and number, exceeding more than 1500 published studies [24]. This dimension is relevant and has implications for group processes [25].

Many studies on the individualist-collectivist dimension have focused on attitudes and behaviors related to group work. [26] suggests that some of the differences between individuals from collectivist and individualistic cultures are related to attitudes toward group work. Representatives of collectivist and individualistic cultures have different attitudes towards diversity among group members: (1) collectivists tend to believe that diverse groups cannot function effectively because of different interests and lack of shared values, while individualists believe that group work can be beneficial because it is perceived as a place the confrontation between different perspectives in the pursuit of knowledge and problem solving [27], (2) individualists are directed specifically towards personal goals while collectivists tend to make substantial contributions to group success and their behavioral motives are driven by general group identity [8]; [28]; (3) individualists do not tend to work in groups because group work is generally associated with working together for a common goal rather than individual goals, and it may be difficult to distinguish individual contributions by assessing the end result of group work [7], (4) as noted above, people from individualist cultures are

more likely to be "lazy" because of their greater willingness to work individually than in groups.

In line with the objectives of this study, this study addresses two research questions, namely what are the most important obstacles faced during group work of multicultural students in higher education? and to what extent are students' perceptions of individualistic and collectivistic cultures different about the importance of dealing with possible obstacles in multicultural student group work in higher education?

Methodology

The survey was conducted on PGSD students at several levels, namely levels 3, 5, and 7. The sample consisted of 141 students consisting of semesters 3, 5, and 7. The students came from various regions, including West Java, Central Java, Sumatra, and Papuans. The age group of respondents ranged from 18 to 21 years. The science learning course was chosen as a case study for this research because this course requires students to work in multicultural groups to carry out a project. This course trains students in applying teaching skills, collaborating in managing the design and implementation of learning. Small groups of 2-4 students are assigned to observe primary schools and make lesson plans which will be simulated. Each group member works full time, for one semester. At the end of the semester, students carry out a simulation as the final part of the lesson plan that has been made.

During the project implementation phase, all group members actively worked on the synthesis and participated in the design of learning starting from lesson plans, teaching materials, media, LKPD, and evaluation tools. Each group member is expected to prepare a self-assessment document. After following the course, students are expected to be able to: (1) determine the purpose of the lecture and formulate assignments and lecture plans based on their disciplines; (2) recognizing the constraints and benefits of working in a multicultural group; (3) assessing the contribution of other group members to group function and task execution and providing feedback in written and oral form; (4) successfully solve problems caused by differences in interaction standards, thinking styles and problem solving styles in multicultural groups; (5) recognize and develop their personal communication style during encounters and conflicts.

A questionnaire was developed to examine whether the students' cultural background influenced their perception of the importance of dealing with obstacles in a group. The instrument is divided into two parts: Part 1 is intended to list the characteristics of the respondents such as area of origin, gender, age, and work experience of multicultural groups of students. Section 2 asks students to rate the importance of dealing with specific obstacles that may occur in the group work process. A 5-point Likert-type scale format was used to assess all instrument items (perceived importance of dealing with constraints: 1 = not very necessary; 2 = not necessary; 3 = neutral; 4 = necessary; 5 = very necessary). Five questions regarding membership of a multicultural group.

Data analysis begins with calculating Cronbach's alpha. Cronbach's alpha reliability coefficients were calculated for each scale with respect to the constraints encountered in the group and ranged from 0.83 for the "cross-sectoral constraints in multicultural group work" to 0.85 for the "cultural constraints in multicultural group work" scale. To determine the validity of the survey size, the trial was conducted on a small number of students and was developed for readability and consistency of meaning. Peer feedback from ten lecturers in education with extensive experience in multicultural student group work provided corrections with respect to wording and survey order. As stated above, differences in students' perceptions of the importance of facing obstacles at the group level were measured by a 19-item instrument that describes the most common obstacles in groups in higher education. Descriptive statistics are used to determine what constraints are considered the most important by students in the group.

Result and Discussion

The constraint exploration factor analysis in multicultural student group work resulted in two factors with satisfactory Cronbach's alpha levels. The first scale is labeled "Cross-sector barriers to multicultural group work" because all items that fit this scale are placed in the group work process, which ties most groups of multicultural students into the calculation of the additional level of complexity due to culture. - Appreciate the differences that members bring to the group. The second scale is labeled "Cultural-related constraints in multicultural group work" and is defined by boundaries unique to culturally heterogeneous groups.

The first research question asked students what the most important barriers to multicultural student group work were. Descriptive statistics are used to determine what constraints are considered the most important by students in group work. All constraints were considered least important by the whole group of students. According to students, inadequate communication skills, students are not able to communicate well, resulting in miscommunication in doing assignments, which is the most discussed obstacle. The dominance of students in doing assignments is also an aspect that becomes an obstacle in determining group assignment decisions.

The results of the analysis showed that students from the exploration factor analysis of constraints in multicultural student group work produced two factors with satisfactory Cronbach's alpha levels. The first scale is labeled "Cross-sector barriers to multicultural group work" because all items that fit this scale are placed in the group work process, which ties most groups of multicultural students into the calculation of the additional level of complexity due to culture. - Appreciate the differences that members bring to the group. The second scale is labeled "Cultural-related constraints in multicultural group work" and is defined by boundaries unique to culturally heterogeneous groups.

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The results of the analysis showed that students from collectivistic cultures scored significantly higher at 0.95 than students from individualist cultures of 0.82 regarding cultural-related constraints within the group. Furthermore, differences in perceptions of cross-sectoral importance and cultural-related challenges in multicultural groups were more pronounced for students from individualist cultures by 0.73, than students from collectivist cultures by 0.99.

In an effort to better understand the influence of cultural diversity on group work in the context of higher education, this study explores the obstacles students face in multicultural group work. This study extends or expands on previous research, research shows that certain obstacles in group work in higher education are perceived differently by students with diverse cultural backgrounds. Analysis based on the survey found, first, that almost all constraints were considered least important by all respondents (scores higher than 3 on a Likert-type scale). Second, inadequate communication skills and students who did not communicate well were considered by all the participants of this study as the biggest obstacle in group work. Third, the results showed that the cultural background of students (individualist-collectivist dimension) influenced their perception of the importance of facing obstacles in group work. Students from individualist cultures perceive traditional constraints in group work as more important than students from collectivist cultures. Students with more collectivist values attend to emphasize cultural constraints in group work more than students from individualist cultures. In addition, differences in perceptions of cross-sectoral importance and cultural-related constraints in multicultural groups were more pronounced for students from individualist cultures than students from collectivist cultures. Previous research studies have confirmed that communication is one of the most important obstacles associated with group work [29]; [8]. Indeed, when group members do not contribute to group work to their full potential, it negatively impacts group climate, group participation, and overall group performance. In addition, students' communication and perception of this barrier as the most important was most likely related to other variables, such as language ability. This is in accordance with the research of [30], [31] and [32], which show that language difficulties in this case communication can pose challenges for students. The fact that Indonesian is a lingua franca, not the mother tongue of all participants, can result in problems with understanding between group members with different knowledge levels and a large variety of accents. It is known from the literature that the ability to communicate successfully across cultures is essential for intercultural cooperation [33]

Thus, providing training to students on the development of communication skills can help coordinate and harmonize the communication methods of culturally different group members. If students know how to act and what is expected of their peers in certain situations, they can potentially benefit from “culturally different knowledge sharing”. Especially with regard to language, it is important to encourage all group members to actively listen to one another and promote the idea that a lack of language/communication skills does not indicate a lack of competence in a course material.

The students themselves emphasized the need to facilitate communication skills in group work. Further analysis and investigation of the most challenging aspects of group work is needed to determine if and how these constraints can be overcome. What strategies can be used by lecturers and students when facing obstacles when working in groups. Further elaboration of these constraints is warranted, paying particular attention to cultural-related differences. Therefore, it is suggested that further research should answer these questions using various research methods (eg, interviews, observations, self-reports) to promote better understanding.

The second research question addresses the influence of students' cultural backgrounds on how they assess the importance of possible constraints on group work in higher education. The results showed that students from individualistic cultures found it more problematic to face cross-cutting obstacles in multicultural group work (such as students not communicating well, inadequate language skills, group conflict, low levels of motivation) than students from collective cultures. Perhaps the perception of the importance of cross-sectoral constraints is related to learning objectives. Mutual understanding and finding common ground with respect to group goals plays a key role in multicultural groups because of the different expectations, individual goals, and backgrounds that members bring to the group. Individualists are geared specifically towards personal goals while collectivists tend to make substantial contributions to group success and their behavioral motives are driven by common group identity, group cohesion and task interdependence. Constraints can be caused by misinterpretation of the ultimate goal of group work and level of commitment. Students from individualist cultures perceive that communication produces more problems in group work, whereas students from collectivist cultures perceive communication as less important for group performance.

Conclusion

The challenges of the 21st century require that university graduates have both individual skills and experience working in culturally heterogeneous groups, because group work is becoming an increasingly important way to organize work in both academic and non-academic environments. This indicates the need for successful cross-cultural collaboration which implies the application of collaborative learning. Finally, it can facilitate solving problems that arise in the process of working together and can promote group success

both in the classroom, outside the classroom, and in the community later.

This study aims to achieve a better understanding of group dynamics in multicultural settings in higher education through students' perceptions of the constraints in group work. It is recommended to develop multicultural group work improvement in further research, so that it will respond to intercultural contexts, build collaborative learning components and utilize educational methods, techniques and assessment tools.

One of the main conclusions from this study is that perceptions of constraints in multicultural student group work differ across cultures. It therefore contributes to a better understanding of the importance of cultural differences in student group work. Members of a culturally diverse group may have completely different expectations regarding in-group learning and the behavioral motives of others, which can result in misunderstanding and conflict. If educators and instructional designers are successful in leveraging positive intercultural experiences in multicultural group work while minimizing the negative aspects, multicultural groups can develop the ability to be more successful and productive as a result of cultural amalgamation.

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