

Investigation of Learners' Perception of Stages in Group Work

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Abstract

Working in groups has become the most preferred strategy of teaching and learning due to its powerful impact in engaging students and providing them with opportunities to have meaningful collaborative learning experience through online and face to face learning. With regards to this, Tuckman's Four Stages Model of Group Development (1965) is utilized to investigate the learners' perception towards performing stage, forming stage, storming stage, and norming stage. This research is a quantitative study using survey methods conducted online and the sample was obtained from students of UiTM Cawangan Kelantan. The instrument of survey was divided into 5 main sections including demographic profile and 4 stages of Tuckman's Model. A total of 52 responses were received and recorded. The findings reveal that each stage has a significant influence on a group's interaction. The study contributes to the literature on group work impacts towards learners' interaction. This further emphasises the needs for educators to optimize group work in the classrooms for better students' engagement and motivation in learning.

Keywords: Group Work, Tuckman's' Model, Forming Stage, Storming Stage, Norming Stage, Performing Stage.

Introduction*Background of Study*

Group work is viewed as an integral part in classrooms. It assists the instructors in achieving intended objectives of the lessons taught. Apart from that, it has received positive outlooks among educators as it facilitates students' learning. The most well-known model used across different fields related to group work or teamwork is Tuckman's Model 1965. The model emphasis on stages of group development which are forming, storming, norming and performing. The Tuckman model suggests that a group cannot move into the latter stage without completing the stage before. During these stages the team members will face challenges in planning their work, tackling problems, and finding solutions and lastly providing the results (Tuckman 1965). Hence, it is highly useful in enabling groups to achieve their target and fulfil true potential.

Brown (2001) defines group work as a common term that covers a wide array of techniques in which two or more students are assigned a task that involves collaboration and self-initiated language. Richards, et. al (1985) mentions group work as a learning activity which involves a small group of learners working together on a single task or different parts of a larger task. It can be concluded that group work is one of the learning strategies that involves learners forming a group to work together to complete tasks, achieve objectives and provide more interacting opportunities.

Moreover, students who work individually often show insignificant progress compared to those in groups as they can solve problems with minimal assistance. This collaborative way of learning is parallel with Malaysian Communicative Language Teaching (CLT) which encourages group work among learners especially to promote second language learning. This is because in group work, learners will have more opportunities to use the language while interacting in the stages mentioned in Tuckman's model. It allows learners to initiate the discussion, have turn taking, practice the negotiation of meaning and have conversational exchanges in the target language compared to individual work. Therefore, with the use of Tuckman model it will shed some light on learners' perceptions towards group work specifically looking at group dynamics in discussion.

Statement of Problem

Group work has been a popular learning activity in language learning due to the many advantages it brings about both to the learners and the teachers. For one, it is suitable to be conducted both in and outside classrooms for students at different levels of language proficiency. The learning process itself is made fun when learners are prompted to communicate among themselves while completing the task given in group work. In short, group work promotes real language use through oral interactions that take place among group members and hence, would help to enhance their competency in using the language.

Due to these advantages, group work has become a research attraction in language learning. While some examined group work has effects on learners' performance (Al.masri, 2018; Chen & Yang, 2019), others were more interested to identify the types of group work strategies favoured by students (Rezaei, 2018).

In group work analysis, one commonly referred model is proposed by Tuckman (1965) who divided the group work process into four stages namely forming, storming, norming and performing. In this regard, studies have been conducted to examine the influence of group work stages on group's behaviour such as Kamarudin et al. (2023) while others tried to explore the perception of learners on their use of learning strategies based on Tuckman's four

group work stages (Samad et al., 2023). While the data of these two studies were based on learners' physical group work experience, other studies such as one conducted by Rik et al. (2022) utilized the data from learners' online learning experience. More specifically, the study examined learners' perceptions on how Tuckman's four stages of group work were displayed in online group activities.

At this point, it was noticed that the first two studies focused on how Tuckman's four group work stages influence learners' behaviours and learning strategies, respectively. The current study deviates from these two studies by examining learners' perception of the four stages of Tuckman's group work itself namely forming, storming, norming and performing. Additionally, as opposed to the study by Rik et al. (2022) which examined learners' perceptions on how online group work was carried out, the current study focused on learners' perceptions on physical group work rather than online. It is worth noting at this point that Rik's et al. 's study (2022) was conducted when online learning seemed necessary after the world was hit by COVID-19 pandemic in early 2020 until 2022.

Considering that the pandemic is now under control and the learning process is mostly back to normal with physical activities dominating the teaching and learning process, it is worthwhile to focus on how physical learning activities are perceived by the learners including group work, so that more effective pedagogical approach could be devised for the learners. By taking into consideration the above three studies, the current study aimed to fill in the research gap by focusing on learners' perceptions on Tuckman's four stages of group work (as opposed to learners' behaviour and learning strategies) in the context of physical learning (as opposed to online).

Objective of the Study and Research Questions

- How does the forming stage influence learners' group interaction?
- How does the storming stage influence learners' group interaction?
- How does the norming stage influence learners' group interaction?
- How does the performing stage influence learners' group interaction?

Literature Review

Group Interactions

Being communicatively competent (Hymes, 1972) has been the main aim of many languages learning, be it as the first or second language. In fact, as asserted by Irkinovich (2021), communicative competence is the key to successful integration into public life. In this regard, group interactions have been recognized as effective ways to help learners to improve their language competency (Zaharuddin et al., 2022; Kirschner et al., 2018) due to its many advantages. For one, group interactions are suitable for learners at all proficiency levels because the tasks and learning contents can be easily navigated by the instructors to match their learners. Being given manageable task, learners not only can practice of their communicative skills, but also get the opportunities to create more complex dialogues, explore relationships between characters, pool knowledge together, and have a more social learning environment aside from developing learners' thinking and organizational skills that will result in formation of speech skills and the ability to communicate with the audience (Irkinovich, 2021). This is supported by Zaharuddin et al. (2022) who stated group work promotes social interaction since students are able to interact, communicate their ideas openly, collaborate to complete tasks and improve their learning capability while doing group work.

Past Studies on Group Work

Many studies have been conducted to investigate the effects of language learning, either as a second or foreign language. This includes examining the extent to which group work affects learners' performance in language learning or their preference in carrying out the group work tasked to them. The study by Kamarudin et al. (2023) for example was conducted to explore motivation factors for learning among undergraduates by focusing on learners' behaviour when conducting group work. Based on Tuckman's model of group work (1965), the data obtained from 303 participants who responded to the online survey based on 5-Likert scale, revealed that the four stages of group development (forming, storming, norming and performing) have a strong positive relationship and significant association towards group behaviour with lowest mean score of 3.0 and highest 4.3. Based on low scores obtained from opposite statements such as *"At the start, team members do not fully trust the other team members and closely monitor others who are working on a specific task"* (M=2.9) at forming stage, *"The goal we have established seemed unrealistic (M= 2.9) as well as "During discussions, we argue a lot even though we agree on the real issues."* (M=2.8), both at the storming stage, it can be concluded that group work is positively accepted by learners in this study. Following this, it was concluded that group work and learners' behaviour should be taken seriously based on the different stages of group development as they can affect the efficiency of group work during the learning process.

A study on group works similar to the one conducted by Kamarudin et al. (2023) was carried out by Samad et al. (2023). However, instead of examining learners' behaviour as a result of the work group assigned to them, this study aimed to explore learners' perceptions on their use of learning strategies based on four stages of Tuckman's Model. Similar to the study by Kamarudin et al (2023), the data in Samad et al.'s study were obtained from an online survey method involving Malaysian higher education students giving responses with regard to their experience in group work learning.

The data analysis from 212 respondents showed varying results in each stage of group work. In the performing stage for instance, the learners showed a positive perception of it with the mean values ranging from 3.7 to 4.4. As for forming and norming stages, the results were between medium and high with mean values between 3.1 to 4.3. This was slightly different at storming stage which showed medium scores with average score above 3.00 and the highest is only 4.1. In general, the findings showed that there is a medium and high level in all stages in group work especially in the performing stage.

Slightly different from the above two studies but still using Tuckman's model of group work (1965) was a study conducted by Rik et al (2022) which aimed to investigate issues related to group work but in the context of online language learning. In this study, 116 respondents consisting of university students responded to online survey questions based on their online language learning experience for about two years. The results showed teaching presence (M= 4.2) is crucial to building students' understanding in the forming stage of group work. In the second stage of storming and norming group work, social presence (M = 3.8) is highly preferred by students rather than working alone as this can ensure interactions and collaboration to take place within the group. The findings also indicated that in the later stage of performing, cognitive presence (M = 4.3) was positively related to online group work. Students had more courage to speak up and defend their ideas in online group work discussions. With social presence highly favourable by these online students, it can be seen that group work is not only suitable but also preferable by the students even though they had been exposed to online learning for a considerable amount of time. Following this, it is

fair to conclude that group work deserves a special place in language learning due to the positive effects on language learning.

Conceptual Framework

Group work is one of the interactive ways of learning as it promisingly yields output easily even though the team members are of different backgrounds. Specifically, as defined by Harris and Sherblom (2008:4) a group work consists of members who are interdependent, influence one another over some period of time, share a common goal or purpose, assumed a specialized role, have a sense of mutual belonging, maintain norms and standards for group membership, and engage in interactive communication. Nevertheless, interactions and communication within group members may be impeded if conflicts are present. Conflict within group work is inevitable as it involves discussions that often come with disagreement. However, disagreement does not usually end with negative circumstances, as it actually promotes team members to have problem solving skills (Rahmat, 2020)

Figure 1 shows the conceptual framework of the study. This study is adapted from the study by Tuckman (1965). Based on the model, the group has to go through 4 stages namely (a) forming (b) storming (c) norming and (d) performing.

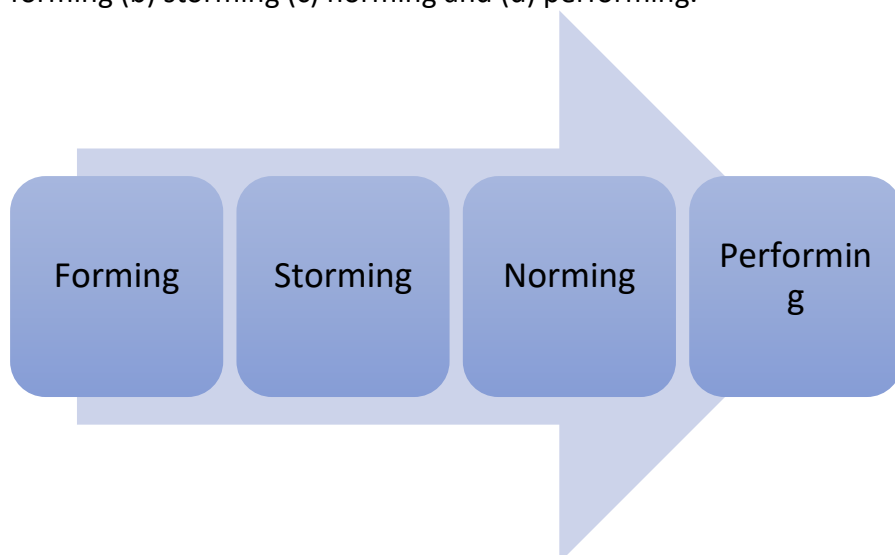


Figure 1- Conceptual Framework of the Study-Stages in Group Interaction (Tuckman's Model 1965)

(a) Forming

The forming stage is the initial and important stage in this model. In this stage the participants try to form their own group by establishing mutual goals and become oriented towards the task. "The first stage of the model is testing and dependence" (Bonebright, 2010). The participants test interpersonal boundaries and other members' behaviours towards the task given. The participants will show a great deal of dependence with other participants as it has value to their learning process. If mutual goals are not pre-established within this stage, it may result in failure of the group dynamics leading to unattained goals. Hence, it is imperative to assure the participants that they are about to experience fun and meaningful learning through active interaction and clear instruction while completing the task given (Jones, 2019). In this stage too, roles and responsibilities are assigned to each participant which brings about their leadership and interpersonal skills.

(a) Storming

In this storming stage, conflicts and disagreement may arise. This is due to differing views of the process and task. Tuckman (1965, 386 *as cited in Bonebright, 2010*) stated that 'group members become hostile toward one another and toward a therapist or trainer as a means of expressing their individuality and resisting the formation of group structure'. This simply happens as initially the participants are familiarizing and understanding others in the group, however due to agreement and disagreement during this stage, it creates resistance among the participants that may or may not hinder them to move forward. This poses an opportunity to stimulate their intellectual creativity in negotiating and discussing.

(b) Norming

In this third stage of the model, the participants find ways to reach consensus and create harmony with each other. Participants try to express and accept each other's opinions. Any task related conflicts are avoided as the group is trying to achieve the objectives. The members develop shared mental models and explore the most effective ways to make it work among them (Neuman & Wright, 1999). Tuckman (1965) mentions that the group becomes a unit of members which has mutual outlook and is driven to maintain and move forward as a group. According to Jones (2019) time is the agent that plays a vital role in this stage as unforeseen scenarios appear, for example a member reminding others that time is passing by, and they should present the desired output successfully. This triggers others to utilize the best strategy to come up with solutions faster. With regards to this scenario, cohesion and harmony seamlessly prevails.

(c) Performing

In the final stage, the group matures to "functional role relatedness" (Tuckman, 1965 as cited in Bonebright 2010). This is the stage where the group becomes energized supporting each other positively trying to complete the task. Every member's ultimate focus is channelled towards the goal together with the involvement and participation of all. The group becomes a 'problem solving instrument as they adapt and play roles in negotiation and discussion. Functionality, flexibility, and performance are at peak during this stage.

The study seeks to investigate each stage (a) Forming (b) Storming (c) Norming and (d) Performing with regards to learners' group interactions.

Methodology

This quantitative study aims to investigate learners' perception towards group work interaction using Tuckman Four Stages Model (1965). The instrument used is a survey adapted from (Rahmat et al., 2021; Martin and Bolliger, 2018; Redmond et al., 2018). A purposive sample of 52 participants responded to the survey. The respondents of the study are students from UiTM Cawangan Kelantan who have enrolled in ELC650 course which is English for Professional Interaction for bachelor's degree students. One of the assessments in the course is group discussion that requires them to participate in project planning. The assessment evaluates on the oral skills which includes social and interpersonal skills when maintaining discussion in a group while fulfilling the objective of assigning members as well as their job scope for the project planning.

The instrument used is a 5 Likert-scale survey and is rooted from Tuckman (1975) to reveal the variables in table 1 below. The survey has 5 sections. Section A has items on demographic profile. Section B has 7 items on the forming stage. Section C has 5 items on the storming

stage while Section D has 8 items on the norming stage. The last section on the performing stage has 7 items.

Table 1

Distribution of Items in the Survey

| SECTION | STAGE | Items |
|---------|------------|-------|
| B | FORMING | 7 |
| C | STORMING | 5 |
| D | NORMING | 8 |
| E | PERFORMING | 7 |
| | | 27 |

Table 2

Reliability of Survey

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .956 | 27 |

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .956, thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

Findings

Findings for Demographic Profile

Q1. Gender

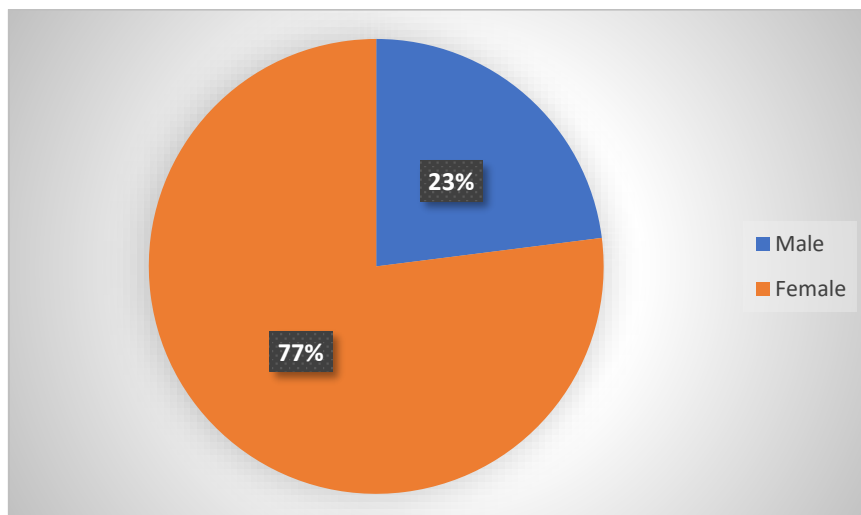


Figure 2 -Percentage for Gender

Figure 2 shows the gender distribution of the research respondents. Female respondents make up 77% of the total while male respondents account for up 23% of the total. This shows

that the number of female respondents is more than three times that of the male respondents.

Q2 Discipline

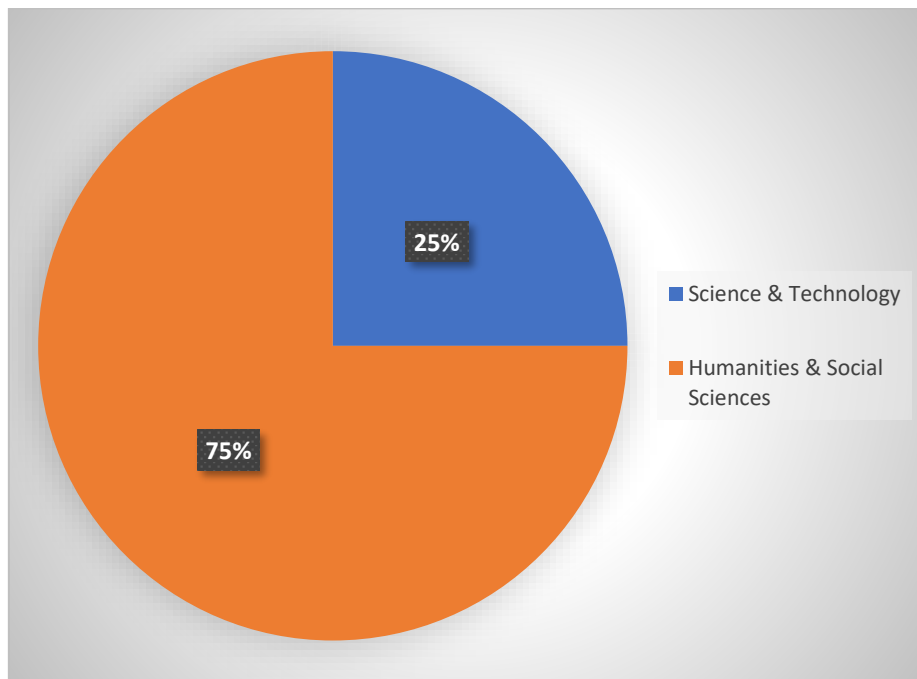


Figure 3- Percentage for Discipline

The respondents of the current study were from two different backgrounds of studies. As indicated in Figure 3, two third or 75% of the respondents were from humanities and social sciences while the other one fourth or 25% was from science and technology.

Findings for Forming

This section presents data to answer research question:

RQ1- How does the forming stage influence learners' group interaction?

FORMING STAGE

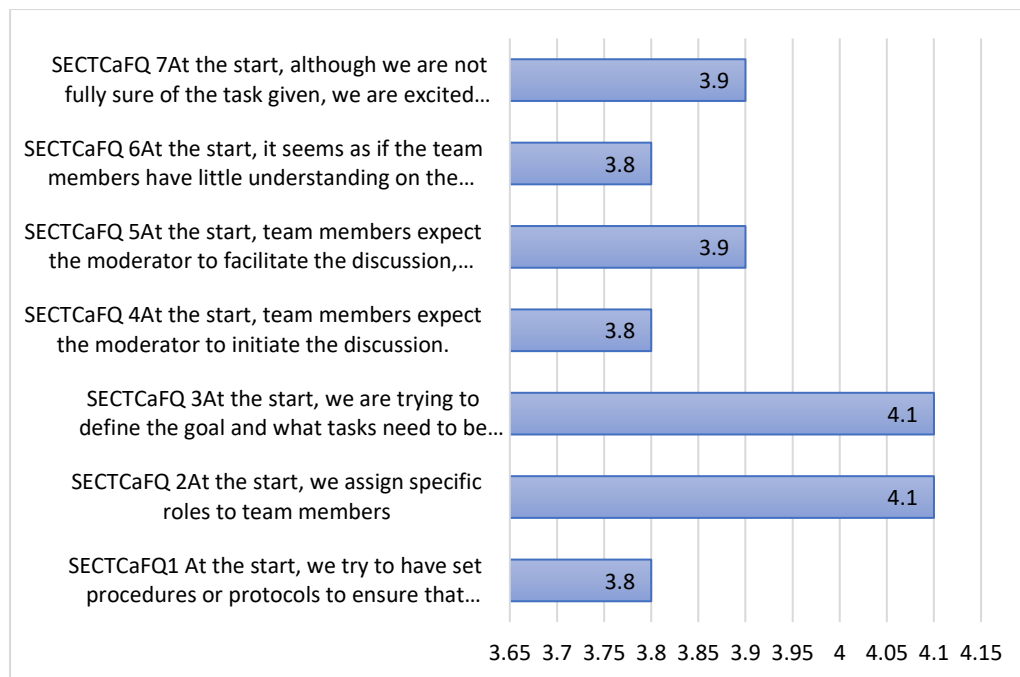


Figure 4- Mean Values for Forming Stage

Forming stage is essentially the process of assembling an initial structure for the team (Vaida & Serban, 2021). As shown in Figure 4, this stage involved seven processes with the lowest mean of 3.8 and the highest 4.1, hence indicating a considerable amount of respondents' agreement with all the processes in Tuckman's forming stage. Based on the mean value of 3.8, it could be generalized that the respondents acknowledged the importance of setting procedures or protocols to ensure that things were orderly and run. This was followed by assigning specific roles to team members and defining the goal and what tasks needed to be accomplished. The mean values of these two processes was 4.1 which was the highest compared to other processes. Next, when the discussion was about to start, team members would expect the moderator to initiate, and further, to facilitate the discussion following the order prepared beforehand by the group. The mean values of these two processes were 3.8 and 3.9 respectively. As the discussion continued, the respondents acknowledged that some team members had little understanding of the aspects of the discussion assigned to them. Despite this however, they were excited and proud to be on the team. The mean values for these final two processes under the Forming stage were 3.8 and 3.9 respectively.

Findings for Storming

This section illustrates the findings of the following research question:

RQ2 - How does the storming stage influence learners' group interaction?

STORMING STAGE

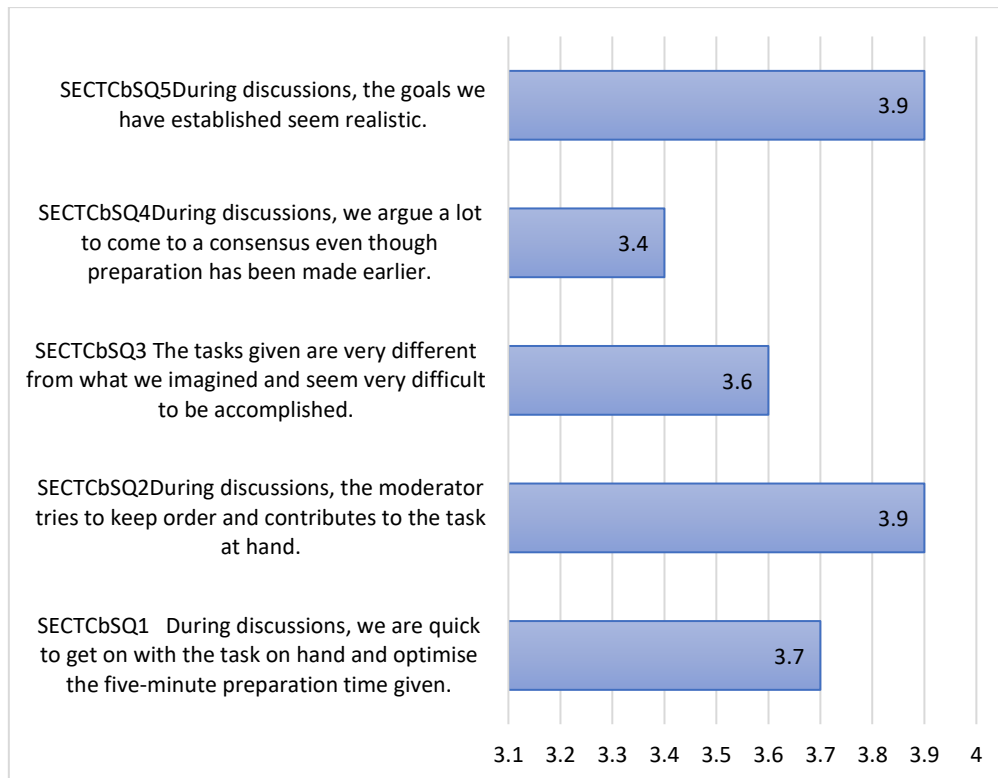


Figure 5 - Mean Values for Storming Stage

Figure 5 illustrates the mean values for the storming stage in Tuckman's Stages of Group Development. The highest mean value, 3.9, was reported for these two processes—the role of a moderator in keeping the tasks in order and contributing to the tasks at hand, as well as establishing their common goals during group discussions. Besides, the respondents claimed that they were at times quick in getting the tasks at hand and optimised in exploiting the time to prepare their tasks ($M=3.7$). While arguments were expected in interactions either within or between individuals (Pettersson & Sakki, 2023), the respondents claimed that they sometimes argued ($M=3.4$) when making final decisions despite preparation made earlier. Therefore, the findings revealed that the learners' group interactions were sometimes influenced by the storming stage of Tuckman's model.

Findings for Norming

This section presents the findings of the following research question:

RQ3- How does the norming stage influence learners' group interaction?

Norming Stage

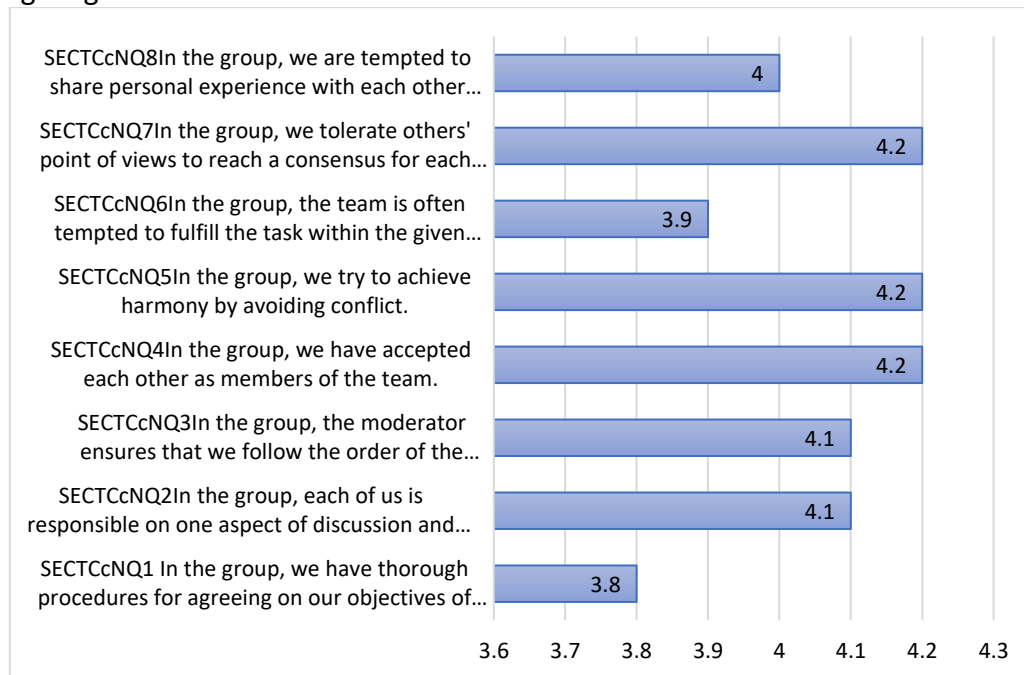


Figure 6 - Mean Values for Norming Stage

Figure 6 depicts the respondents' perception of the third stage of Tuckman's model, the norming stage. At the developmental stage where they began to work with their team members, the respondents often understood that their roles were to accept each other as members of the team and be tolerant when listening to others' points of view ($M=4.2$). The other strategy that was also positively perceived by the respondents was the need to achieve harmony so that they could avoid any conflicts among themselves ($M=4.2$). The lowest mean value ($M=3.8$) was observed when the respondents were expected to have thorough procedures for agreeing on the task objectives and planning them. Lacking this could affect group interactions, as according to Bick et al. (2017), the group's planning activities should be aligned across levels to improve dependency awareness and, in turn, achieve more effective coordination. Thus, the norming stage very often had an influence on learners' group interactions.

Findings for Performing stage.

This section displays data to answer the following research question:

RQ4: How does the performing stage influence learners' group interaction?

Performing Stage

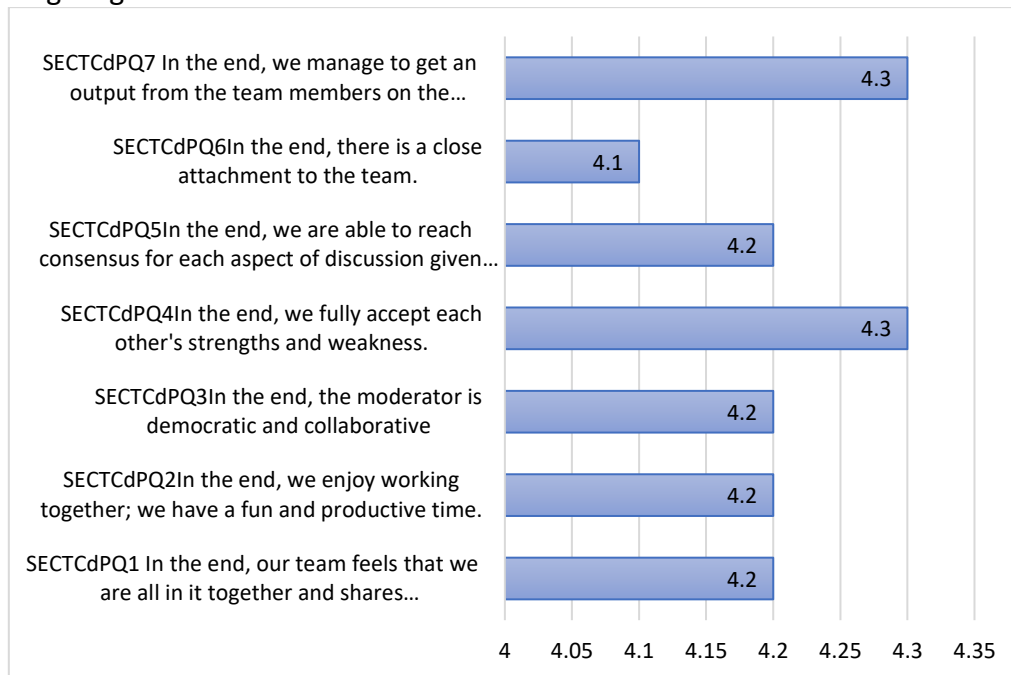


Figure 7 - Mean Values for Performing Stage

Figure 7 presents the influence of Tuckman's fourth developmental stage—the performing stage—on students' group discussions. The results indicate that the respondents most of the time fully accepted each other's strengths and weaknesses while very often managing to get output from their team members on the assigned tasks, contributing to the highest mean value of 4.3. Additionally, the respondents also found that the performing stage was meaningful to them, particularly in giving them satisfying feelings when working together, sharing their responsibilities, and reaching a consensus for each aspect discussed at the end of their group tasks ($M=4.2$). This echoes Cao et al.'s (2023) findings, which revealed that at the stage when team members had a clear understanding of their job responsibilities, the work would be completed smoothly and efficiently. Hence, the respondents believed that the performing stage intermittently influenced their group interactions.

Conclusion

Summary of Findings and Discussions

The current study explores the influence of Tuckman's Four Stages Model (1965) towards learners' interaction. In the forming stage, it is revealed that learners establish mutual goals and perceived roles prior to the discussion. Interpersonal and leadership skills are at use in this stage as learners try to assign the roles and responsibilities to achieve the goals. This process is essential as it will determine the success and failure of a group work. In response to the second research question, learners are sometimes influenced by the storming stage, as the highest mean score is establishing their common goals during group discussions as well as the role of moderator in navigating the task at hand. In completing the task, the moderator plays a vital role in determining the flow of the discussion. With effective involvement of the moderator and productive contribution from other group members, the discussion is geared up towards reaching a consensus and completing the task given. This will ensure a successful group dynamic (Legewie & Bohms, 2015). In the norming stage which investigates team members dynamics in finding ways to work in harmony and seamlessly create unity, with a

sole goal of completing the task. It can be stipulated that in norming stage learners accept the roles and responsibilities as well as be tolerant and unbiased towards others' perspectives. The finding reveals that the performing stage has a significant influence on learners' interaction as they have fully accepted each other's strengths and weaknesses and aim and managed to get intended output based on the assigned roles of each team member. The finding echoes with Tuckman's model concept that each of the stages needs to be completed before moving on to the next. For example, in the first stage, guidelines and roles must be established immediately as it plays a significant role in speeding up the process of completing the task and reducing conflict among learners (Jones, 2019).

(Pedagogical) Implications and Suggestions for Future Research

From the findings, group work is evidently showing a positive impact on students' learning experience. It assists them by the collaborative work of team members with different knowledge backgrounds which eventually yield intended results. The support learners obtained creates a conducive learning environment which consequently promotes meaningful and fun learning. This can be achieved successfully through clear instructions and guidelines by the educators. Moreover, the success of group work lies in every team member's participation, with assigned roles and responsibilities. The study has unveiled the effectiveness of group work primarily in initiating and maintaining group discussion in planning a project. The use of this model is significant in this study as each of stages are experienced by the learners unintentionally, thus with the findings it brings about the strategies instructors need to incorporate in this project planning process to maximize the group discussion. For a change, the educators can place a strong emphasis on group work that involves both teaching and learning, making the classrooms a knowledge sharing platform. Future research should delve into qualitative approach and mixed method approach to reach an in-depth insight of the subject matter.

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