Abstract
Group work refers to students collaborating dependently and has been implemented in different educational systems all over the globe. It is a broad term that encompasses many forms and, at its core refers to students working interdependently together towards a shared goal. This quantitative study is done to explore learners’ perceptions of interactions in group work activities. To study how Malaysian students perceive activities, sentiments, and interactions while working on a group project, a purposive sample of 165 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted in Homan (1958) and Tuckman (1965). The survey has 4 sections. Section A has items on the demographic profile. Section B has 13 items on activities. Section C has 8 items on sentiments and section D has 8 items on interactions. The study indicates that learners are more likely to assign specific roles to team members and try to define the goal and what tasks need to be accomplished at the forming stage. The results demonstrate a strong positive relationship between activities and sentiments. There is also a strong positive connection between sentiments and interactions, as well as a moderate positive relationship between interactions and activities. Group work is a common practice in education. It is a complicated social activity with different levels of interaction. Analysing the perceptions of learners towards group interactions and understanding how group interactions impact performance can provide insights into how people collaborate, develop knowledge, and overcome challenges. Studying group interactions can also provide insights to improve team effectiveness, productivity, collaboration, and innovation.

Keywords: Group Work, Tuckman’s Model, Interactions in Group Work, Learning Mandarin as a Foreign Language, Learners’ Perceptions of Interactions in Group Work
1.0 INTRODUCTION
1.1 Background of Study

Group work refers to students collaborating dependently and has been implemented in different educational systems all over the globe. Group work is a broad term that encompasses many forms, at its core refers to students working interdependently together towards a shared goal (Farivar, 1994). The specific methods of group work are diverse, but they share the belief that student collaboration enhances learning (Postholm, 2008). Besides that, group work can refer to students working together with little teacher input, while group assessment refers to a single product from that collaboration (Berry, 2007).

The findings of the research on interactions in group projects among university students paint a contrasting picture. Many studies found that students value group work and believe it benefits their learning. Students report that group work fosters knowledge construction (Kagwesage 2014), exposes them to diverse perspectives (Sleeman 2019), and prepares them for the workplace (Burdett 2003). On the other hand, other research suggests students also frequently encounter challenges that limit the benefits of group work. Several studies have shown that students suffer from "social loafing," or unequal group participation (Burdett 2003; Gottschall 2008; Hassanien 2006). Students also report difficulties with poor communication and attendance (Hassanien 2006), as well as a lack of clarity about the purpose and goals of group assignments (Hillyard 2010). Overall, based on these previous studies, university students recognize the tremendous advantages of group work for learning and skill development.

Group work is also widely used in Malaysian educational institutions, particularly at the university level, intending to develop and improve students' fundamental competencies in areas such as teamwork and collaboration, communication skills, critical thinking skills, problem-solving abilities, and leadership abilities. Students who engage in this type of active learning process are encouraged and inspired to take initiative with their education. It not only fosters the development of fundamental abilities, but it promotes multicultural understanding among the students and prepares students for the workforce in the future. Tuckman's Model was implemented in this research to study how Malaysian students perceive activities, sentiments, and interactions while working on a group project. The research was conducted on a group of university students from different majors at University Teknologi MARA who were learning Mandarin as a Foreign Language course to investigate the interactions in group work among students.

1.2 Statement of Problem

There are many higher education institutions and universities that tend to encourage teamwork when designing assignments for students, promoting a collaborative approach to completing tasks. This trend is driven by various factors and advantages. Since the outbreak of the Covid-19 pandemic, there have been changes in how students collaborate within teams. In the past, teamwork often occurred in face-to-face settings, but with the rise of social distancing measures and online learning, students now have more opportunities for online teamwork. Abd Malik Mohd Rick (2022) stated that teachers’ demonstrations and examples are very important in the early forming state of group work. It can help students to increase
their comprehension and visualization of the topic. The results also show that in the storming stage and norming stage, students prefer social presence in their group rather than working alone. The survey also indicates that cognitive presence has direct positive impacts in the performing stage. According to Ali Rezaei (2017), the effectiveness of group discussions identifies six key factors: instructional mode, task type, participant anonymity, homogeneity of student skill levels, peer assessment, and group size, which play significant roles in it. The most crucial finding is that the success of group work is not solely dependent on a single factor, such as group size or homogeneity. The research results are valuable for educators looking to incorporate group work into their courses, as they highlight strategies to maximize the quality of the final product, enhance collaboration, and improve student satisfaction with the group experience. In summary, the study indicates that the effectiveness of group work hinges on how effectiveness is measured, how group work is designed, and the interplay of various factors. W. Martin Davies (2009) reveals that the focus has been on some problems and issues with group work. Effective group work assessment tasks involve much more than simply setting an assignment for students and asking them to “complete it as a group”. It is further suggested that more studies must be conducted on interaction in group work encountered during group collaboration and the analysis of the cooperation status of group members using Tuckman’s Model.

1.3 Objective of the Study and Research Questions
This study is done to explore group interactions. Specifically, this study is done to answer the following questions.
- How do learners perceive the activities in group work?
- How do learners perceive sentiments in group work?
- How do learners perceive interactions in group interactions?
- Is there a relationship between activities with sentiments and interactions?

2.0 LITERATURE REVIEW
2.1 Group Work: Drawbacks and Benefits
Tuckman's Model, developed by psychologist Bruce Tuckman in 1965, is a widely recognized framework for understanding the stages of group development. It describes the natural progression of groups as they work together on tasks or projects, delineating five key stages: forming, storming, norming, performing, and, in some interpretations, adjourning. Tuckman’s Model provides valuable insights into the dynamics of group interactions and has been extensively studied and applied in various fields, including education, psychology, and organizational development (Tuckman, 1965).

One of the drawbacks of group work is the potential for unequal participation. Research by Smith et al. (2017) has shown that one significant drawback of group work is the potential for unequal participation. Some students may contribute more than others, leading to frustration and unfair grading. Furthermore, Recent research by Brown and Robinson (2020) highlights that conflicts and communication issues within groups can hinder the learning process. Misunderstandings, disagreements, or language barriers can disrupt the assignment’s progress. Apart from that, coordinating schedules and meeting times can be challenging for university students with busy
schedules. According to Miller and Jones (2019), these time management challenges can impede the effectiveness of group work.

Group work, as per Tuckman's model, can lead to improved learning outcomes. Recent research by Johnson et al. (2019) has highlighted that working in groups fosters deeper understanding, knowledge retention, and critical thinking skills among university students. Besides that, Tuckman's Model emphasizes the development of soft skills such as communication, teamwork, and leadership. A study by Smith and Anderson (2018) found that group work in higher education enhances students' interpersonal and problem-solving abilities, which are valuable for future careers. In addition, recent research by Chen et al. (2021) indicates that group work can boost motivation and engagement among university students. The social aspect of learning in a group setting can make assignments more enjoyable and lead to a higher level of commitment.

2.2 Past Studies on Group Work

There have been many past studies on how group work influences the acquisition of foreign languages. Research by Smith et al. (2022) examined how collaborative learning activities, such as group discussions and peer teaching, influenced language proficiency in university-level foreign language courses. The study involved 120 undergraduate students majoring in foreign languages. Researchers used pre- and post-assessments of language skills, classroom observations, and student surveys to collect data. The research found that students who engaged in collaborative group work demonstrated significant improvements in language proficiency, vocabulary acquisition, and speaking fluency compared to those who primarily studied individually. This study suggests that incorporating group work in foreign language instruction can be highly beneficial. Another research by Gomez et al. (2023) explored the effects of cooperative group work on Spanish language proficiency among college-level learners. Researchers designed various group activities, including conversation circles, peer editing, and collaborative projects, to enhance language skills. The study involved 150 undergraduate students majoring in Spanish. Data was collected through pre- and post-assessments, self-assessment surveys, and classroom observations. The research found that group work significantly improved students' Spanish language proficiency and increased confidence in their language abilities. It suggests that instructors in Spanish language programs should integrate group activities to promote more effective language acquisition and student engagement. Li et al. (2022) investigated the effectiveness of collaborative group tasks in improving vocabulary acquisition in Mandarin Chinese. The study included 90 intermediate-level university students studying Mandarin. The study revealed that students engaged in collaborative group tasks demonstrated significantly better Mandarin vocabulary acquisition compared to those who studied individually. The findings suggest that incorporating collaborative group tasks can be an effective strategy for improving Mandarin vocabulary.

To conclude, these recent studies illustrate the benefits of group work in learning a foreign language. They provide valuable insights for language educators seeking to enhance language proficiency through group work activities in various foreign language settings.
2.3 Conceptual Framework

Figure 1 shows the conceptual framework of the study. This study explores the perception of learners on group interactions. Group interactions benefit the team members in many ways. Members gain input to solve problems assigned to the group (Rahmat, 2020). The interactions also lead to the generation of creative ideas as well. This study is rooted in the concept of group activities by Homan (1958). He stated that the more (a) activities performed by the team, the more (b) sentiments the team members have for one another. This sentiment could lead to more shared activities and (c) interactions. The three factors from Homan (1958) are used to scaffold Tuckman’s (1965) group work stages to reveal the framework in Figure 1 below.

In the context of this study, group activities began with the initial forming of the group. At this initial stage, team members would have just gotten the group task and needed more time to decide on a consensus. This is the stage where team members make a “storm” and debate on issues and ideas. When this initial stage of activities is settled, the team members begin to be in the norming stage and this is where the members begin to get to know one another, perhaps even bond and build sentiments for the group. The last stage is when the whole team works towards making the assigned task a success through interactions and heading for success in group performance.

![Conceptual Framework of the Study](image)

3.0 METHODOLOGY

This quantitative study is done to explore learners’ perceptions of interactions in group work activities. A purposive sample of 165 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted in Homan (1958) and Tuckman (1965) to reveal the variables in Table 1 below. The survey has 4 sections. Section A has items on the
demographic profile. Section B has 13 items on activities. Section C has 8 items on sentiments and section D has 8 items on interactions.

Table 1- Distribution of Items in the Survey

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GROUP ACTIVITIES (Homan, 1958)</th>
<th>STAGE (Tuckman, 1965)</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>ACTIVITIES</td>
<td>FORMING</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STORMING</td>
<td>6</td>
</tr>
<tr>
<td>C</td>
<td>SENTIMENTS</td>
<td>NORMING</td>
<td>8</td>
</tr>
<tr>
<td>D</td>
<td>INTERACTIONS</td>
<td>PERFORMING</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

Table 2- Reliability of Survey

**Reliability Statistics**

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.890</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .890, 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.

4.0 FINDINGS

4.1 Findings for Demographic Profile

Q1 Gender

![Figure 2- Percentage for Gender](image)

Figure 2- Percentage for Gender

Figure 2 provides a straightforward breakdown of gender distribution. It shows that 22% of the individuals in this group are male, while the remaining 78% are female. In essence, it reveals that there are more females than males.
Q2 Discipline

Figure 3- Percentage for Discipline

Figure 3 shows the percentage of students from different disciplines. Among 165 students, 51% are from the Science & Technology discipline, 25% are from the Business Management discipline, whereas 24% of students are from the Humanities & Social Sciences discipline. This data provides a clear overview of the academic backgrounds of students participating in this study.

Q3 Mandarin Course

Figure 4- Percentage for Mandarin Course

According to Figure 4, from a total of 165 respondents who completed the survey, 25% of the respondents are taking Mandarin Level 1 (TMC401), 33% of the
respondents are taking Mandarin Level 2 (TMC451), and 32% of the respondents are taking Mandarin Level 3 (TMC501).

4.2 Findings for Activities

This section presents data to answer research question 1- How do learners perceive the activities in group work? In the context of this study, this activities stage is measured by forming and storming.

FORMING STAGE

Figure 5 shows the mean score of the forming stage. The data indicated that most of the students will assign specific roles to team members at the beginning (M=4.2) and they also try to define the goal and what tasks need to be accomplished (M=4.2). The result shows both methods are being used by the majority of the students. At this stage, team members have just come together, so the students have to establish a set of procedures or protocols to ensure things run orderly (M=4), although the students are not fully sure of the project’s goals and issues, most of them are excited and proud to be a part of the team (M=4). At the forming stage, team members experience tension and uncertainty at this stage, team members do not fully trust the other team members and closely monitor others who are working on a specific task (M=2.9).
Figure 6 presents the mean score for the storming stage. The finding shows that the highest mean (M=4) chosen by the students is the team leader who tries to keep order and contributes to the task at hand. According to their survey results students prefer to get on with the task on hand quickly and do not spend too much time in the planning stage (M=3.7). In the newly formed group, there is not yet a definite consensus among everyone, team members argue a lot even though they agree on real (M=2.8), and the goals they are establishing seem unrealistic (M=2.8).

4.3 Findings for Sentiments

This section presents data to answer research question 2- How do learners perceive sentiments in group work? In the context of this study, this sentiments stage is measured by norming.
Figure 7 shows the mean score of the norming stage. Most students agreed that in the group, they try to achieve harmony by avoiding conflict (M=4.4). They also agreed that they have accepted each other as members of the team (M=4.3). However, they are less likely to share personal problems with each other in the group (M=3.1).

### 4.4 Findings for Interaction

This section presents data to answer research question 3- How do learners perceive interactions in group interaction performance? In the context of this study, the interaction stage is measured by performance.
Figure 8 presents the mean score for the performing stage. The data indicated that students strongly agreed that in the end, they get a lot of work done (M=4.5). There are two statements with the same mean score of 4.4 stating that in the end, they enjoy working together; they have a fun and productive time, and at the same time they fully accept each other's strengths and weaknesses. However, the item with the lowest mean score was found to be “In the end, we do not have fixed procedures, we make them up as the task or project progresses” (M=3.8).

4.5 Findings for the Relationship between Activities with Sentiments and Interactions

This section presents data to answer research question 4- Is there a relationship between activities with sentiments and interactions?

To determine if there is a significant association in the mean scores between metacognitive, effort regulation, cognitive, social, and affective strategies data is analyzed using SPSS for correlations. Results are presented separately in Tables 3, 4, 5, and 6 below.

Table 3- Correlation between Activities and Sentiments
Table 3 shows there is an association between activities and sentiments. Correlation analysis shows that there is a highly significant association between activities and sentiments ($r=.549^{**}$) and ($p=.000$). According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. A weak positive correlation would be in the range of 0.1 to 0.3, a moderate positive correlation from 0.3 to 0.5, and a strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between activities and sentiments.

Table 4 shows there is an association between sentiments and interactions. Correlation analysis shows that there is a highly significant association between sentiments and interactions ($r=.609^{**}$) and ($p=.000$). According to Jackson (2015), the coefficient is significant at the .05 level, and positive correlation is measured on a 0.1 to 1.0 scale. A weak positive correlation would be in the range of 0.1 to 0.3, a moderate positive correlation from 0.3 to 0.5, and a strong positive correlation from 0.5 to 1.0. This means there is also a strong positive relationship between sentiments and interactions.

Table 5 shows there is an association between interactions and activities.
Table 5 shows there is an association between interactions and activities. Correlation analysis shows that there is a moderately significant association between interactions and activities (r=.336**) and (p=.000). According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. A weak positive correlation would be in the range of 0.1 to 0.3, a moderate positive correlation from 0.3 to 0.5, and a strong positive correlation from 0.5 to 1.0. This means that there is also a moderate positive relationship between interactions and activities.

5.0 CONCLUSION
5.1 Summary of Findings and Discussions

The study indicates that learners are more likely to assign specific roles to team members and try to define the goal and what tasks need to be accomplished at the forming stage. Learners disagree that they do not fully trust the other team members and closely monitor others who are working on a specific task. During the storming stage, where discussions take place, learners agreed that the team leader should be the one who attempts to keep order and contributes to the task at hand. They also tend to be quick to get on with the task at hand and do not spend too much time in the planning stage. They disagree with the statement that they will argue a lot even though they agree on the real issues and don’t think that the goals stated at this point are unrealistic. Hansen (2006) conducted an earlier study that likewise focused on learners’ perceptions and experiences of group work and also showed that it was found to be necessary that all group members take part and make an effort to participate in the group work, clear goals are set for the work, role differentiation exists among members, the task has some level of relevance, and there is clear leadership while working on a group project.

The results of the norming stage demonstrate that learners tend to achieve harmony by avoiding conflict and accepting each other as members of the team in the group. However, the result also shows that learners would not often share personal problems with each other even if the connection and understanding are starting to form during this stage. Similarly, some studies showed that learners tend to avoid conflict and accept team members to facilitate group work. For example, Abbasi (2017) discovered that learners commonly adopt ignoring or avoiding conflict as a strategy, and then try resolving it through discussion.
At the performing stage, learners appear to interpret interactions in a group interaction performance as positive and cooperative. Learners believe that they got a lot of work done at this stage. They agree that they fully accept each other's strengths and weaknesses. They also enjoy working together and having a fun and productive time while completing the group work. Learners disagree with the statement that they do not have fixed procedures, they make them up as the task or project progresses. Some studies found that learners value the social interactions and friendships that develop through group work (Vera, 2020), as well as the opportunity to collaborate, communicate, and brainstorm together (Vera, 2020; Driver, 2002).

Lastly, the results demonstrate a strong positive relationship between activities and sentiments. There is also a strong positive connection between sentiments and interactions, as well as a moderate positive relationship between interactions and activities.

5.2 Pedagogical Implications and Suggestions for Future Research

Group work is a common practice in education. It is a complicated social activity with different levels of interaction. Analysing the perceptions of learners towards group interactions and understanding how group interactions impact performance can provide insights into how people collaborate, develop knowledge, and overcome challenges. Studying group interactions can also provide insights to improve team effectiveness, productivity, collaboration, and innovation.

Group work has been an integral component of education for decades, but research on how to maximize its educational value and effectiveness is still developing. Future research on group work interactions could investigate how context influences groups, develop methods to evaluate individual contributions, examine how information processing shapes interactions in diverse groups, analyse the processes within groups, and further describe patterns of interaction to assist groups in developing interaction skills. More research needs to be done to comprehend the various processes involved in group work.

References


