



ANALYSING THE CADENCE OF GROUP CONFLICTS ACROSS GENDER DURING ONLINE LEARNING

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Abstract:

It has been two years since the world has been forced to cope with doing things online. Even in normal face-to-face group discussions, participants face difficulties and conflicts, and now online learning has not made it any easier. This study explores the ups and downs in group discussion. 72 participants responded to a survey to find out how they perceive the conflicts in group formation. The findings in this study revealed that there were significant differences the norming stage and also performing & adjourning stage. In addition to that, the total mean score showed interesting differences across gender. Not all group formations with different genders go through conflicts. Not all team members with the same gender are conflict-free. Sometimes discussions/some activities are more difficult to carry out because of conflicts across genders are not properly addressed. Then again, not all group conflicts are negative. Conflicts are good in several ways. The conversations improve the communication and negotiation skills of the team members. In addition to that, defending for one's point helps to sharpen critical thinking skills. The findings in this study cannot be generalized for all situations in group work. This study can be a springboard for more group formation and group conflicts research.

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1. Introduction

1.1 Background of Study

Collaborative learning has longed gained its popularity in the classroom. Learners gain more than just the content of the lesson during group interactions. The communication lets the learners practice their language skills (Rahmat, 2016) especially when it involves interacting with learners of different cultures or even gender. The study by Aripin & Rahmat (2021) reports that genders language differently when it comes to conveying information during interaction.

It is undeniable that the pandemic wave has changed the way learners acquire knowledge. Nevertheless, collaborative learning is used in online classes. According to Rahmat (2020), millennials learn differently from their older peers. They have poor communications skills because of technology. Sure enough, having to attend online classes is one level ahead for many learners who used to look at online interactions as non-academic. As such, the study by Sukimin, et al. (2021) and Janssen & Wubbles (2016) suggested that future researchers look into group interactions among learners during online learning. It would be interesting to see how learners are coping with online group interactions. Similarly, Goni et al. (2020) raised the issue whether online learning encourages team conflict and if it did, how do the learners manage the conflict? This study is done to explore the conflicts that takes place during online group interactions, Specifically, this study is done to answer the following question;

- 1) How is Forming displayed during online group work across gender?
- 2) How is Storming displayed during online group work across gender?
- 3) How is Norming displayed during online group work across gender?
- 4) How are Performing & adjourning displayed during online group work across gender?

2. Literature Review

2.1 Introduction

This section presents information on group interaction, group conflicts, past studies, as well as, the conceptual framework of the study.

2.2 Group Interactions

There are numerous evidences to proof that group interactions are beneficial. Vygotsky (1978) defended that group interactions sharpen the use of language to promote thinking, as well as develop reasoning. Teachers need to provide the opportunity to students for a managed discussion about their learning. These discussions must have a purpose so that meaningful exchange between students can promote deeper understanding. Vygotsky (1978) reports that group interactions help to improve learners' zone of proximal

development (ZPD). This one is the difference between what the learner can do on his/her own and what he/she can achieve with the guidance and encouragement from a skilled team member. As such, teachers need to ensure that the team has these three important components. Firstly, the presence of someone with knowledge and skills beyond that of the learner (a more knowledgeable other). Next, social interactions with a skilful tutor that allow the learner to observe and practice their skills. Finally, scaffolding, or supportive activities provided by the educator, or more competent peer, to support the student as he or she is led through the ZPD.

2.3 Conflicts in Group Interactions

When interactions take place, there are bound to be conflicts. The issues of group conflict in any organisation can also be mirrored in team interactions in the classroom. According to Shonk(2020), there are three types of conflicts (Figure 1); (a) task conflict, (b) relationship conflict and (c) value conflict. The first of the three types is task conflict. This usually involves concrete issues related to learners work assignments. This can include disagreements about how to divide the task among team members. The second type of conflict is relationship conflict. This may stem from differences in personality, or even style of working. The last type is value conflict. This can arise from differences in identities and values of the team members. This can include differences in ethics, norms or other deeply held values.

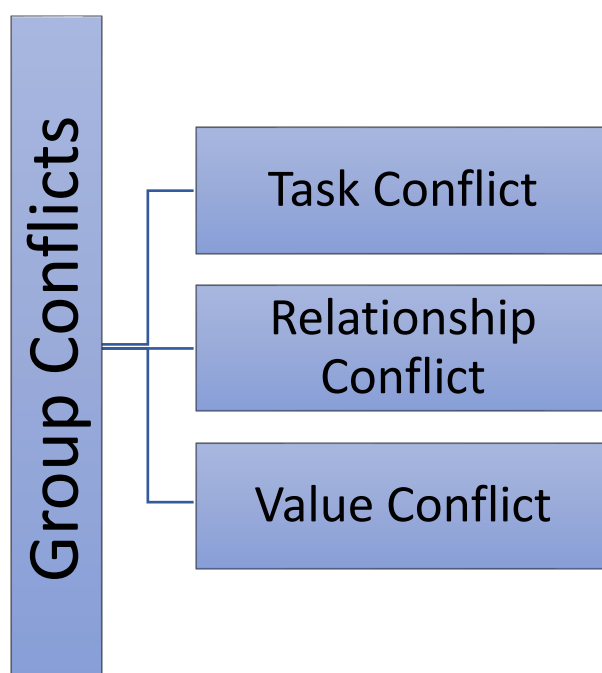


Figure 1: Group Conflicts
Source: Shonk, 2020

What happens in group conflicts? Tuckman and Jensen's (1977) presented a model of group formation that explains the processes that take place during group conflicts. Group formation comprises of (a) forming, (b) storming, (c) norming, (d) performing and

adjourning. Firstly, the (a) forming stage of a group involves clarifying common interests and roles to be played. This is the stage where the team's purpose is clarified, roles and boundaries are decided and interpersonal relationships begin. Next, come the (b) storming stage and may involve the problem-solving processes. This is usually where conflict emerges. If the conflict is unresolved, it can inhibit the team's progress. The third stage is the (c) norming stage usually involves the clarification of the task and establishing the agenda. This stage involves belonging, growth and control. The last stage is the (d) performing stage involves the allocation, implementation, and evaluation of the task. Finally, the adjourning stage can include the celebration of task completion.

2.4 Past Studies

Collaborative learning has been widely used as classroom activities to encourage interactions. The study by Curşeu, Chappin & Jansen (2018) found that collaborative learning is often used in higher education to help students develop their teamwork skills and acquire curricular knowledge. Their study tested a mediation model in which the quality of group discussions mediates the impact of gender diversity and group motivation on collaborative learning effectiveness. Findings show that the proportion of women in groups, and the group level need for cognition and core self-evaluations (within group average) positively predict discussion quality that in turn predicts group (academic) performance. They also found that the effect for gender diversity on group performance is only partly mediated by discussion quality. They listed four common obstacles to collaboration; students' lack of collaborative skills, free-riding, competence status, and friendship. This study may be useful for educators, designers, and researchers to foster the quality of student collaboration.

The pandemic has added a value to the collaborative learning by making it feasible online. The study by Faja (2013) explored students' perceptions of online collaborative learning involving both process and product oriented activities. The online collaborative activities were used in the context of a Management Information Systems course. Findings showed that perceived structure of the collaborating activity and peer interaction that takes place during the activity are positively related to perceived learning. Peer interaction and perceived learning were also related to satisfaction with the course. Another study by Goni, Cortazar, Alvares, Donoso, and Miranda (2020) explored the impact of the transition to online learning. The purpose of the study was to understand if face-to-face and online team dynamics differed concerning the prevalence of personal goals, team challenges, and individual/social strategies. Findings showed that both modalities report mostly the same prevalence of goals, challenges, and strategies. However, online students tend to manifest a significantly lower prevalence of specific challenges and strategies, suggesting that online teamwork may have involved less group deliberation. These results provide evidence for the "equivalency theory" between online and face-to-face learning in a context where all systemic levels transitioned to a digital modality. These findings raise the question of whether online teaching encourages the emergence of team conflict and deliberation needed for creative thinking.

However, when several individuals are put together to complete tasks, sometimes conflicts arise. This paper by Ella, Roberta, Andrea, & Manuela (2007) reports the results of a study aimed to establish whether the amount and types of conflicts vary in all male, all female and mixed gender groups working in asynchronous collaborative learning online settings. Sixty psychology majors were divided into three groups. The lessons were conducted online by the same teacher. The study show that the levels of participation in the three groups varied in relation to gender composition. All female group did have more conflicts then male and mixed groups, but primarily they did not have interpersonal. The female groups' conflicts seem to be related to goal-oriented process of work.

2.5 Conceptual Framework

The framework for this study (Figure 2) is adapted from Tuckman and Jensen's (1977) model of group formation. However, this study looks at group formation in online learning. The formation begins with the forming of the group. This is the stage where the team members orientate themselves to the objective of the task. This initial stage is where the team members get to know one another. As the discussion escalates, conflicts may arise. This is known as the storming stage. The third stage is the stage where the team members try to normalise the situation by getting consensus from the group. The last stage, the closure, can come in two stages. Firstly, the group now is ready to either present the group work online or submit the group task. The last stage is the stage of adjourn where the team members celebrate the completed task.

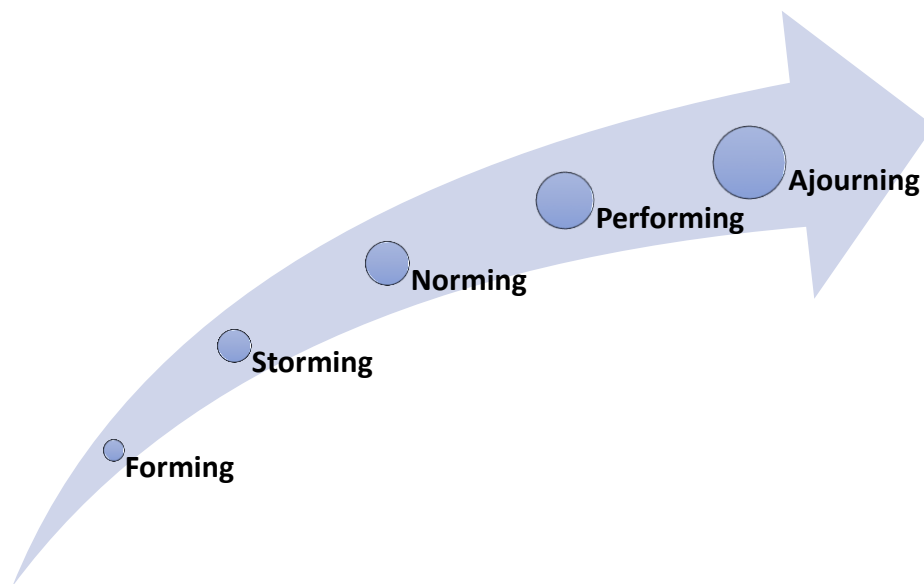


Figure 2: Conceptual Framework of the Study
Source: Tuckman and Jensen (1977)

3. Methodology

3.1 Research Design

This quantitative study is done to explore the group formation process during online learning. 72 respondents were purposely chosen to participate in this study. There were 15 male and 57 female students. The students went through a semester of online learning and during the semesters, they were asked to form group discussions to complete tasks given by the teacher. All classes and group discussions were done online. The students responded to the survey at the end of the semester to indicate their perception of group formation via online. The instrument (table 1) used is a survey with 5 sections. Section A is about the demographic profile. Section B is about forming (5 items), section C is about storming (5 items), section D is about norming (5 items) and section E is about performing & adjourning (5 items).

Table 1: Breakdown of items in the survey

Section	Hading	No. of Items
A	Demographic Profile	2
B	Forming	5
C	Storming	5
D	Norming	5
E	Performing & Adjourning	5

Table 2 shows the reliability statistics for the instrument. The analysis revealed a Cronbach alpha value of .919 thus revealing a good internal reliability. Data is collected online via goggle form. The data is analysed using SPSS version 26 and presented in the form of percentage for the demographic profile and mean score for the variables. Findings for the demographic profile is presented in the form of pie charts and findings for the variables are presented in the form of bar charts.

Table 2: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.919	20

4. Findings

This section presents the findings of this study. The first part reports the findings in terms of percentage for gender distribution. The next parts discuss answers to the research questions presented above. The research questions are answered in two parts; (a) the first part, the researcher presents the ANOVA test to see if there are any significant differences of variables across gender. According to Greenland, et al. (2016), a p-value less than 0.05

(typically ≤ 0.05) is statistically significant. Next, (b) the researcher compares the mean scores of items in the variables across gender.

4.1 Findings for Demographic Profile

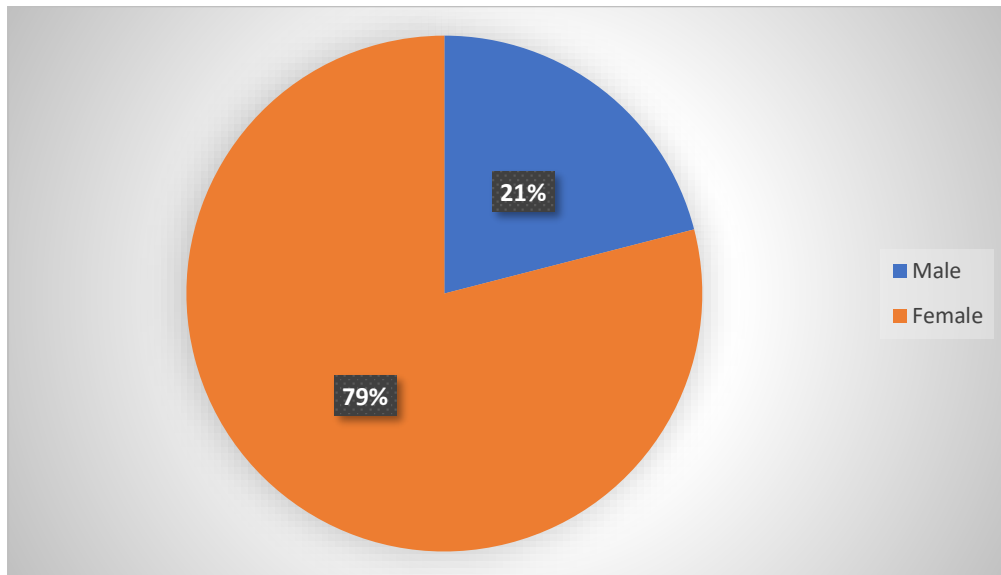


Figure 3: Percentage for Gender Distribution

Figure 3 above shows the percentage for gender distribution. 21% are male and 79% are female respondents.

4.2 Findings for Forming across Gender

This section answers Research question 1: How is Forming displayed during online group work across gender?

In order to answer the question, the first stage is report if there are and significant difference in forming across gender. With reference to Table 3, there are no significant difference ($p > 0.05$) for all items in forming across gender.

Table 3: ANOVA Table for Forming across Gender

			Sum of Squares	df	Mean Square	F	Sig.
TEO1 * gender	Between Groups (Combined)		.037	1	.037	.031	.862
	Within Groups		59.884	49	1.222		
	Total		59.922	50			
TEO2 * gender	Between Groups (Combined)		1.213	1	1.213	1.157	.287
	Within Groups		51.375	49	1.048		
	Total		52.588	50			
TEO3 * gender	Between Groups (Combined)		.411	1	.411	.426	.517
	Within Groups		47.236	49	.964		
	Total		47.647	50			
TEO4 * gender	Between Groups (Combined)		.631	1	.631	.760	.388
	Within Groups		40.702	49	.831		
	Total		41.333	50			
TEO5 * gender	Between Groups (Combined)		.411	1	.411	.426	.517
	Within Groups		47.236	49	.964		
	Total		47.647	50			

Next, Figure 4 presents the mean score for forming across gender. Both male and female learners agreed that group work makes it easier to divide work (mean for male = 3.5; mean for female = 3.7). Interestingly, both genders were neutral about the ease of getting to know their friend online (mean for male and female = 3).

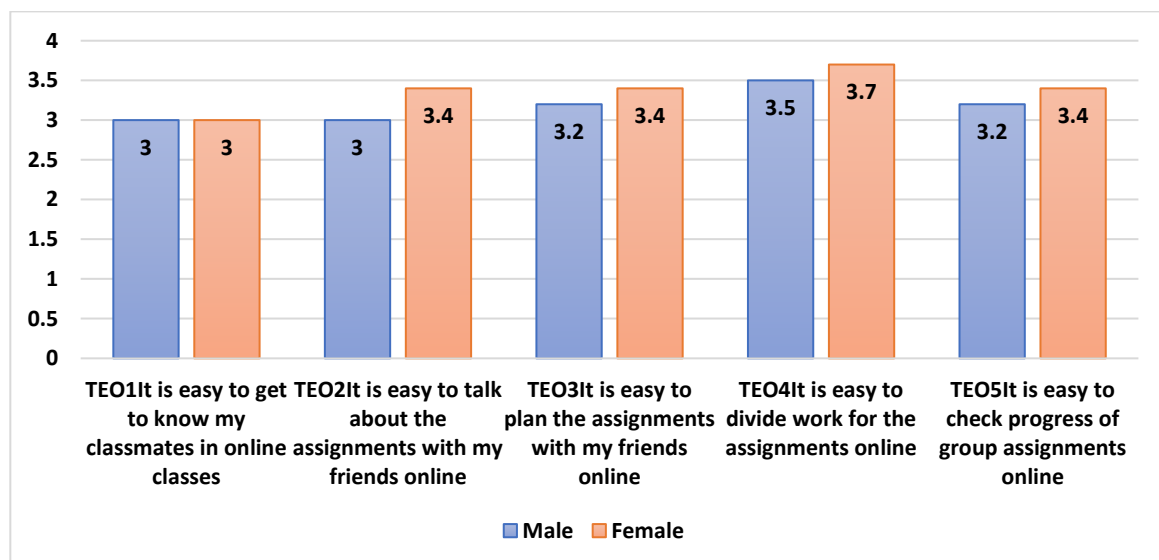


Figure 4: Mean Score for Forming across Gender

4.3 Findings for Storming across Gender

This section answers Research question 2: How is Storming displayed during online group work across gender?

Firstly, all items in storming show no significant difference ($p > 0.05$) across gender.

Table 4: ANOVA Table for Storming

			Sum of Squares	df	Mean Square	F	Sig.
TECF6 * gender	Between Groups	(Combined)	.428	1	.428	.419	.521
	Within Groups		50.082	49	1.022		
	Total		50.510	50			
TECF7 * gender	Between Groups	(Combined)	.200	1	.200	.289	.594
	Within Groups		33.957	49	.693		
	Total		34.157	50			
TECF8 * gender	Between Groups	(Combined)	.018	1	.018	.021	.884
	Within Groups		40.727	49	.831		
	Total		40.745	50			
TECF9 * gender	Between Groups	(Combined)	.090	1	.090	.089	.766
	Within Groups		49.557	49	1.011		
	Total		49.647	50			
TECF10 * gender	Between Groups	(Combined)	1.303	1	1.303	1.403	.242
	Within Groups		45.520	49	.929		
	Total		46.824	50			

Figure 5 presents the mean score form storming across gender. The highest mean (mean for male = 3.7; mean for female = 3.6) is for “conflicts allow the group to choose the nest idea”. Next, both male (mean = 3.5) and female (mean = 3.5) respondents agreed that “conflicts allow the group to evaluate ideas.

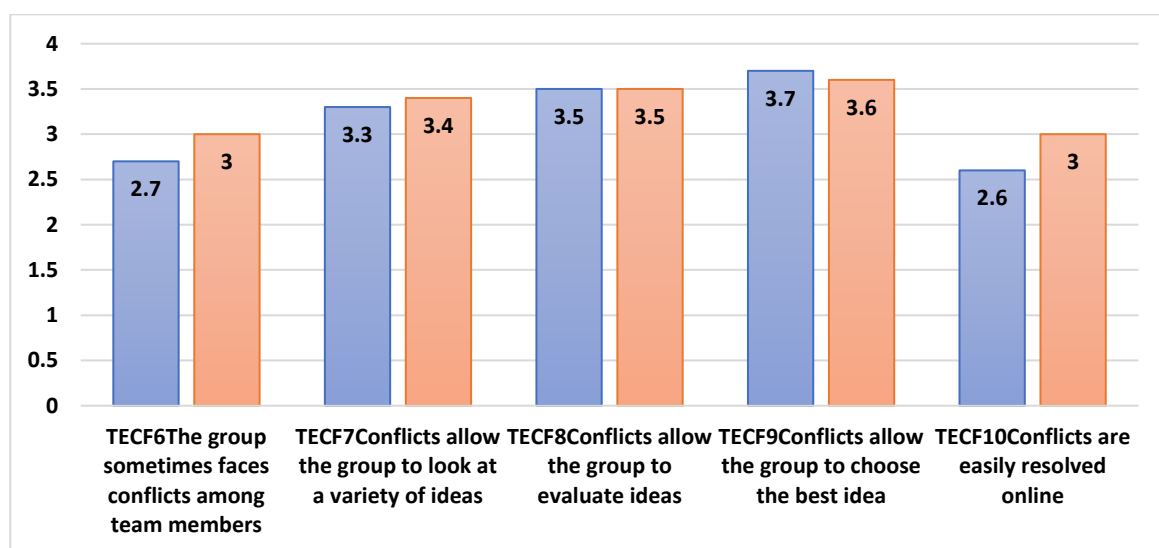


Figure 5: Mean Score for Storming across Gender

4.4 Findings for Norming across Gender

This section answers Research question 3: How is Norming displayed during online group work across gender?

With reference to Table 5, 4 out of 5 items were found to be significant different ($p < 0.05$). There is a significant different between gender for “group conflicts are easily ended with consensus. Next, there is also a significant difference between genders for “Group conflicts end when team members compromise”. There are significant differences for “Group conflicts end when team members are able agree on a selected ideas together”, and also “Group conflicts end when team members can agree to disagree”.

Table 5: ANOVA Table for Norming

			Sum of Squares	df	Mean Square	F	Sig.
TECS11 * gender	Between Groups (Combined)		2.763	1	2.763	5.441	.024
	Within Groups		24.884	49	.508		
	Total		27.647	50			
TECS12 * gender	Between Groups (Combined)		3.671	1	3.671	5.145	.028
	Within Groups		34.957	49	.713		
	Total		38.627	50			
TECS13 * gender	Between Groups (Combined)		2.808	1	2.808	4.632	.036
	Within Groups		29.702	49	.606		
	Total		32.510	50			
TECS14 * gender	Between Groups (Combined)		4.118	1	4.118	4.982	.030
	Within Groups		40.509	49	.827		
	Total		44.627	50			
TECS15 * gender	Between Groups (Combined)		2.041	1	2.041	3.617	.063
	Within Groups		27.645	49	.564		
	Total		29.686	50			

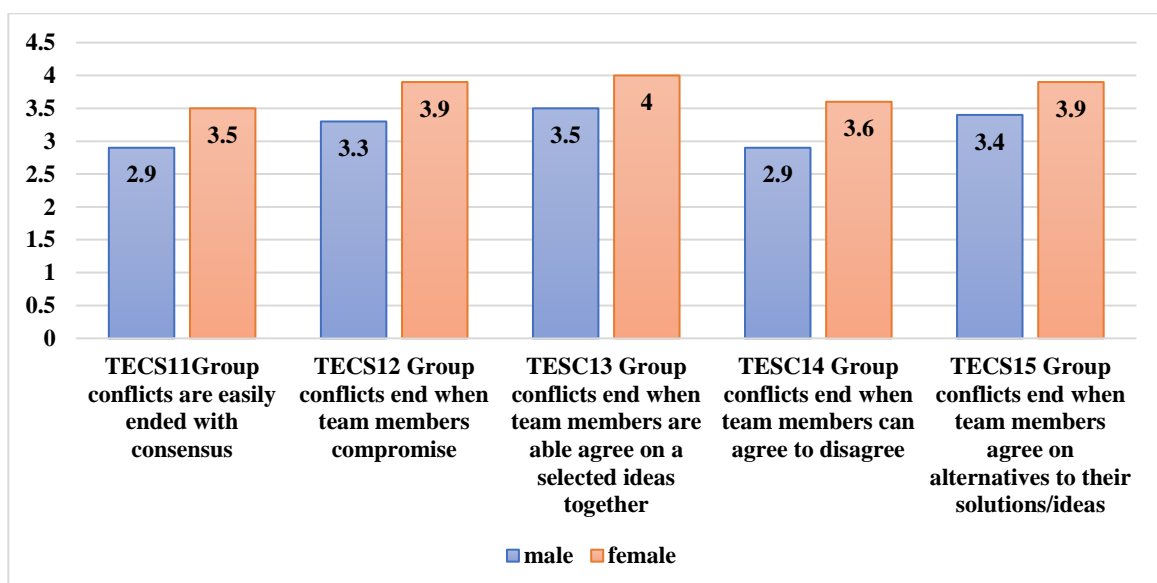


Figure 6: Mean Scores for Norming across Gender

Figure 6 shows the mean score for norming across gender. The highest means (male = 3.5; female = 4) are for “Group conflicts end when team members are able agree on a selected ideas together “next is for (male = 3.3; female = 3.9) are for “Group conflicts end when team members compromise” and “Group conflicts end when team members agree on alternatives to their solutions/ideas” (mean for male = 3.4 ; female = 3.9).

4.5 Findings for Performing and Adjourning across Gender

This section answers Research question 4: How are Performing & adjourning displayed during online group work across gender?

Table 6 shows the ANOVA table for performing & adjourning. There are significant differences ($p < 0.05$) across gender for “Team members take responsibility to make improvements” and “Team members work together to make many changes before the final work”.

Table 6: ANOVA Table for Performing & Adjourning

			Sum of Squares	df	Mean Square	F	Sig.
TECL16 * gender	Between Groups	(Combined)	1.349	1	1.349	1.660	.204
	Within Groups		39.827	49	.813		
	Total		41.176	50			
TECL17 * gender	Between Groups	(Combined)	2.098	1	2.098	3.381	.072
	Within Groups		30.411	49	.621		
	Total		32.510	50			
TECL18 * gender	Between Groups	(Combined)	2.177	1	2.177	3.423	.070
	Within Groups		31.157	49	.636		
	Total		33.333	50			
TECL19 * gender	Between Groups	(Combined)	4.064	1	4.064	6.541	.014
	Within Groups		30.445	49	.621		
	Total		34.510	50			
TECL20 * gender	Between Groups	(Combined)	2.898	1	2.898	4.565	.038
	Within Groups		31.102	49	.635		
	Total		34.000	50			

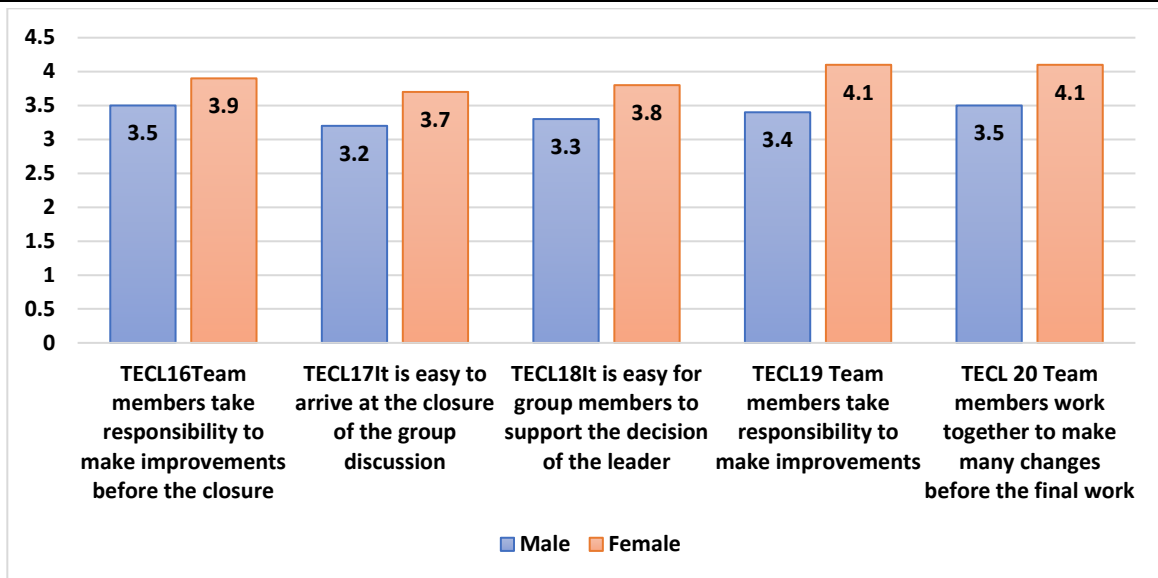


Figure 7: Mean Scores for Performing & Adjourning

Figure 7 shows the mean score for performing & adjourning. The highest mean scores are at “Team members take responsibility to make improvements” (male = 3.4; female = 4.1) and “Team members work together to make many changes before the final work” (male = 3.5; female = 4.1)

5. Conclusion

5.1 Summary of Findings and Discussion

The findings in this study revealed that there were significant differences for 4 items in the Norming stage. There were also significant differences for 2 items in the performing & adjourning stage.

In addition to that the total mean score (figure 8) showed interesting differences. It was found that the mean scores for all variables were higher for female than for the male respondents. Ella, Roberta, Andrea, & Manuela (2007) also found in their study that female learners do show to have more conflicts than their male counterparts.

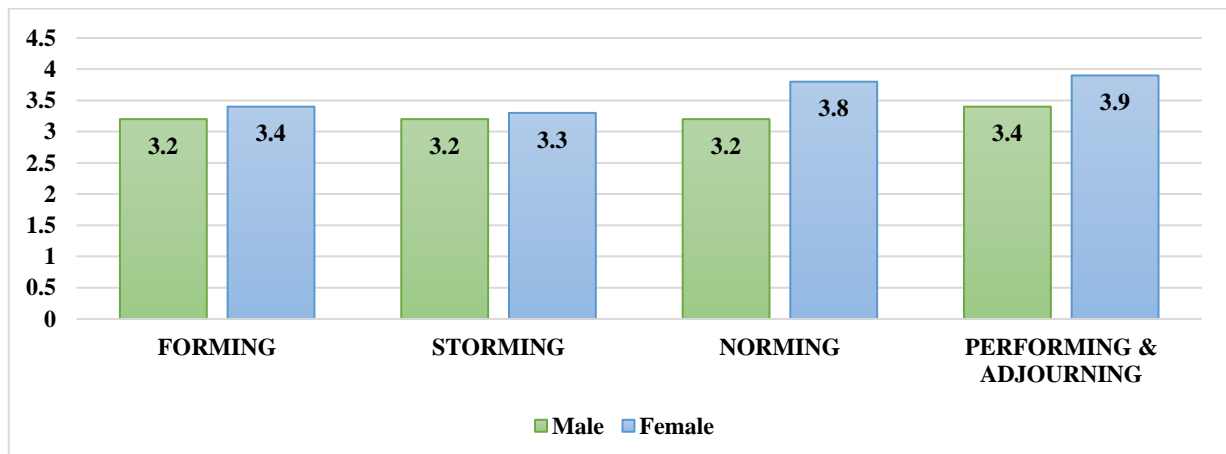


Figure 8: Total Mean Score for all Variables in Group Formation

5.2 Pedagogical Implications and Suggestion for Future Research

Not all group formations with different genders go through conflicts. Not all team members with the same gender are conflict-free. sometimes discussions/some activities are more difficult to carry out because of conflicts across genders that is not properly addressed Then again, not all group conflicts are negative. According to Vygotsky (1978), conflicts are good in several ways. The conversations improve the communication and negotiation skills of the team members. In addition to that, defending for one's point helps to sharpen critical thinking skills. The findings in this study cannot be generalized for all situations in group work. This study can be a springboard for more group formation and group conflicts research.

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Conflict of Interest Statement

The authors declare no conflicts of interests.

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References

- Aripin, N. & Rahmat, N. H. (2021). Metacognitive Writing Strategies Model Used by ESL Writers in the Writing Process: A Study Across Gender. *International Journal of Asian Social Science*, Vol 11(1), pp 1-9. Retrieved from <https://doi.dx/10.18488/journal.1.2021.111.1.9>
- Curşeu, P. L., Chappin, M. M. H. & Jansen, R. J. G. (2018). Gender diversity and motivation in collaborative learning groups: the mediating role of group discussion quality. *Soc Psychol Educ* 21, 289–302. <https://doi.org/10.1007/s11218-017-9419-5>

- Ella, M. M., Roberta, S., Andrea, S., & Manuela, T. (2007). Gender Differences in Online Collaborative Learning Groups Promoting Affective Education and Social Capital. *Psicol.Esc. Educ*, Vol 11 (spe), pp 27-36. Retrieved from <https://doi.org/10.1590/S1413-85572007000300003>
- Faja, S. (2013). Collaborative learning in Online Course: Exploring Students' perceptions. *Information Systems Education Journal (ISEDJ)*, Vol 11(1), pp 42-51. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1145013.pdf>
- Goni, J., Cortazar, C., Alvares, D., Donoso, U., and Miranda, C. (2020). Is Teamwork Different Online versus Face-to-face: A Case in Engineering Education. *Sustainability*, Vol 12 (10444). Retrieved from <http://doi.doi.org/10.3390/su122410444>
- Greenland, S. Senn, S. J., Rothman, K. J., Carlin, J. B., Poole, C., Goodman, S. N., and Altman, D. G. (2016). Statistical tests, *P* values, confidence intervals, and power: A Guide to misinterpretations. *European Journal of Epidemiology*, Vol 31, pp 337-350. Retrieved from <https://dx.doi.org/10.1007%2Fs10654-016-0149-3>
- Janssen, J., & Wubbles, T. (2016). Collaborative learning practices: Teacher and Student Perceived obstacles to effective students collaboration. *Cambridge Journal of Education*, Vol 48(1), pp 103-122. Retrieved from <https://doi.org/10.1080/0305764X.2016.1259389>
- Rahmat, N. H. (2020). Innovation in Education :Barriers and Facilitating Factors. Retrieved from *European Journal of Education Studies*, Vol 6(10), pp 55-66 <https://oapub.org/edu/index.php/ejes/article/view/2784>
- Rahmat, N. H. (2016). Analyzing Audience Awareness in Academic Writing among Undergraduates. *Journal of Language and Literature Education*, Vol 16(91), pp 88-96. Retrieved from https://ejournal.upi.edu/index.php/BS_IPBSP/article/view/3065
- Shonk, K. (2020). 3 Types of Conflict and How to Address them. Harvard Law School. Program on Negotiation. Retrieved from <https://www.pon.harvard.edu/daily/conflict-resolution/types-conflict/>
- Sukimin, I., Rahmat, N. H., Mok, S. S., Arepin, M., Zainal Abidin, N. S., and Haron, H. (2021). An Investigation of Mediation process in Social Learning during Online Language Learning. *International Journal of Asian Social Science*, Vol 11(5), pp 240-249. Retrieved from <http://dx.doi.org/10.18488/journal.1.2021.115.240.249>
- Tuckman, B. W. and Jensen, M. A. (1977). Stages of small group development revisited, *Group and Organizational Studies*, 2(4) pp. 419- 427. Retrieved from: [http://www.freewebs.com/group-management/BruceTuckman\(1\).pdf](http://www.freewebs.com/group-management/BruceTuckman(1).pdf)
- Vygotsky, L. S. (1978). *Mind in Society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

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