

Discourse Analysis of ESL Undergraduate Students' Patterns of Interaction in an Online Peer Feedback Environment to Develop Writing Performance

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Abstract

Academic writing is challenging for English as a Second Language (ESL) undergraduate students. One of the teaching strategies that language instructors use in teaching academic writing is by using peer feedback. However, in the ESL setting, many research has indicated mixed findings on the use of peer feedback. To contribute to the discussion, this qualitative study investigated the patterns of interaction between ESL students in an online peer feedback environment. The data were collected from six ESL undergraduate students through discourse analysis of their online peer feedback written interaction and content analysis of their essays. The findings revealed that two patterns of interaction emerged which include the expert/novice and dominant/passive pattern. However, there were none to small improvements among the students in terms of their writing performance. Although one of the patterns is collaborative (i.e., expert/novice), the quality and quantity of their feedback were lacking thus resulting in lower revisions and improvements made. The study recommends further research on the quality and quantity of peer feedback to understand better the role of online peer feedback in ESL students' academic writing.

Keywords: discourse analysis, ESL students, patterns of interaction, online peer feedback, writing performance

1. Introduction

The acquisition and learning process of academic writing skills is very important for students to master. However, it is also a complicated process, especially among English as a Second Language (ESL) students (Mukundan et al., 2013). Some of the factors that may lead to such complications are their lack of passion for understanding the importance of the language as well as their low level of English language skills (Musa et al., 2012; Ghabool et al., 2012). In terms of academic writing skills specifically, these students usually are confused with the different aspects of producing effective writing (i.e., proper sentence structure, appropriate word choices, grammar accuracy and usage of schemata) and also the inability to write based on the readers' perspective and feedback (Shang, 2019; Mufiz et al., 2017). All of these factors may stem from the ESL students' first language, their psychological perspective of the English language, their context of learning and exposure as well as the teaching methods and approaches used by the teachers.

In the Malaysian education context, a recent report on the Malaysian University English Test (MUET), which is an English language proficiency test for pre-university students' admission to most public universities in Malaysia, reported that the scores of the candidates showed that in terms of the writing paper, more than half of the candidates (53.21%) only scored band 3 out of band 6 (Malaysian Examination Council, 2019). This goes to show that the writing

performance among undergraduate Malaysian ESL students is still below average, and there is a need to help them in improving this particular skill.

Since many elements contribute to the ESL/EFL students' problems in mastering the English language writing skills, there is a need to do more research and studies on what these problems are, what causes them and how to overcome

such problems. This particular article will focus more on the use of peer feedback, as one of the approaches to help students' academic writing. As peer feedback involve interaction between students in evaluating and commenting on each other's works, the researchers are interested to see whether the patterns of interaction might influence the roles of this feedback and its effectiveness, especially in an online environment.

The use of online peer feedback environment in a writing classroom is not an alien concept in today's technological era. Past literature have discussed the effectiveness of online peer feedback in improving students' writing performance (see Novakovich, 2016; Ho, et. al.; Lira-Gonzales & Nassaji, 2019; Alharbi, 2020; Al Abri et al., 2021). Although it gives positive results, several problems may emerge especially in the students' online interaction. The absence of social presence and the unsuitability of the online communication platforms play a huge role in contributing to difficulties among students in their online interaction (Harsch, Müller-Karabil & Buchminskaia, 2021). For instance, some students perceived that Flipgrid (an online video discussion channel) does not give them the authentic interaction experience of a face-to-face interaction due to the nature of the platform, which does not have any real-time interaction settings. Apart from that, online interaction is also susceptible to poor internet connection and limitations of students' devices. According to Zboun and Farrah (2021), the students were having difficulties interacting between themselves and their teachers due to their unstable internet connections and also how some of them do not have electronic devices. Because of these problems, it is very crucial to consider the factors that ensure the students' online interaction is smooth. This is a very important aspect to investigate as online peer feedback relies heavily on real-time interaction as they need to discuss their writings and from there, the patterns of interaction can be analysed.

However, there is yet to have a study on the ESL students' patterns of interaction in an online peer feedback environment in developing writing performance. Most past literature focused on the direct effectiveness and problems of face-to-face and online peer feedback on the students' writing performance where the context was mostly in EFL settings. In terms of the patterns of interaction, the studies were only implemented in a face-to-face environment. To the authors' best knowledge, there are yet to have any studies on the patterns of interaction in an online peer feedback session among ESL students. Thus, the authors are interested to identify what patterns of interaction are showcased by ESL students during the online peer feedback session as well as which patterns can develop their writing performance.

The understanding of the patterns of interaction in an online environment is crucial so that teachers can identify the contents that are focused on by the students in an online peer feedback session. By knowing what is the content being focused on by the students, teachers can identify which aspects are neglected among their students and can focus more on improving and developing it. Apart from the contents being discussed, the study of the patterns of interaction could also help to identify the motives and goals of students during the peer feedback session. Therefore, in this research, the researchers focus on analysing the patterns of interaction among Malaysian undergraduate students (ESL students) in an online peer feedback session and identifying which patterns develop their writing performance. Apart from benefitting the teachers in their teaching process as discussed previously, the study will also greatly benefit educational institutions and curriculum developers whereby a student-centred approach can be introduced in the syllabus.

2. Research Questions

1. What patterns of interaction are showcased by ESL students during the online peer feedback session?
2. What patterns of interaction are showcased by ESL students during the online peer feedback session develop their writing performance?

3. Literature Review

With the advent of technology and the reliance on it in today's era, the online peer feedback approach is becoming more prominent to be applied by teachers in their writing classroom. Similar to the traditional alternative of the approach, the online peer feedback approach had also been shown to be effective in improving the students' writing performance. One study concluded that a group of EFL Vietnamese students who are placed in a Facebook-based peer feedback session showed improvement in their writing skills when compared with another group in a traditional peer feedback session. The students in the former group had a better development as Facebook featured interfaces that encourage collaborative learning between the students in an online setting (Ho et al., 2020). Ho (2015) also found out that both groups of Taiwanese EFL tertiary-level students who were placed in face-to-face peer feedback (FFPR) and computer-mediated modes (CMPR) gave more revision-oriented comments and benefit them as a whole, through CMPR was considered as the better option as the students felt it is more comfortable (especially among

introvert students) and because they preferred typed comments compared to handwritten ones. In another study, Novakovich (2016) discovered that university students in Canada who experienced a blog-mediated peer feedback session produced a higher quality of writing as they received more critical comments in the session. These positive effects of online peer feedback on the students' writing performance are mostly due to the functions of the online platform itself where it either eases the process of their learning, increases their quality of feedback or is suitable for certain learners' learning strategies. Overall, it was discovered that online peer feedback platforms, such as Wiki, Facebook, Turnitin and Qzone (in China) have features that encouraged mobile learning, promote anonymity in providing and receiving feedback as well as have a user-friendly interface for providing written feedback, such as the function to highlight, comment, edit, track and save documents alongside with the feedback (Demirbilek, 2015; Gao et al., 2016; Li & Li, 2018; van den Bos & Tan, 2019; Al Abri et al., 2021).

In discussing both face-to-face and online peer feedback implemented in a writing classroom, the most significant process among the students are their discussion and interaction. In the process of the peer feedback session, students often negotiate meaning to reach a mutual understanding of the writing issues discussed. However, due to the differences in the students' proficiency, personality, relationship, motives and also learning strategies, it might affect the effectiveness of the approach in improving the students' writing skills. The reason is due to the different patterns of interaction that emerged in the process, thus why researchers are interested to conduct more studies in this area. In the study of the patterns of interaction in a peer feedback session, most scholars refer to Storch's (2002) model of dyadic interaction.

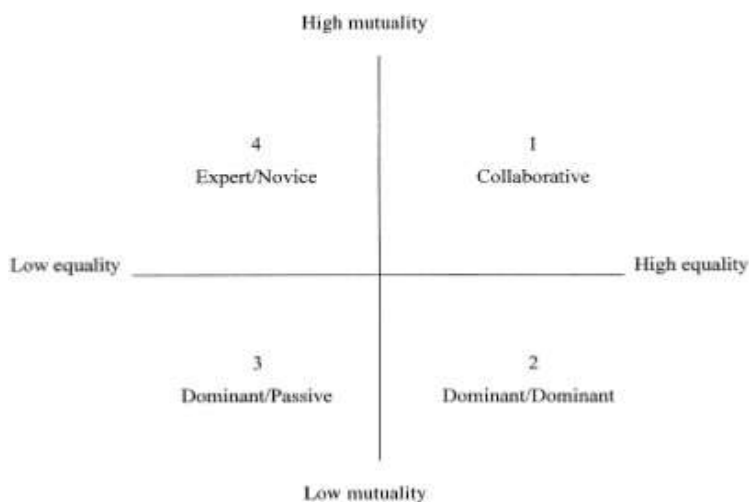


Figure 1. Storch's (2002) model of dyadic interaction

In the model, Storch discovered four main patterns namely collaborative, dominant/dominant, dominant/passive and expert/novice. Some of these patterns gave positive development in the students' writing performance while others resulted in the opposite. Table 1 explains the patterns of interaction mentioned.

Table 1. Definition of the Patterns of Interaction

Patterns of Interaction	Definition
1- Collaborative	Both participants contribute meaningful responses to each other (high equality) and accept as well as take note of others' feedback (high mutuality).
2- Dominant/Dominant	Both participants contribute meaningful responses to each other (high equality) and but could not accept and ignore each other's feedbacks (low mutuality).
3- Dominant/Passive	Only the dominant participant contributes by mostly giving feedback (low equality) and do not give the chance to the passive participant to engage to the feedback given (low mutuality)
4- Expert/Novice	The expert participant contributes by mostly giving the feedback (low equality) but the novice participant is given chances to engage with the feedback given (high mutuality)

Past literature mostly agreed with the model indicating that the collaborative and expert/novice patterns of interaction provided the students from different parts of the world (e.g., China, Thailand, New York and Indonesia) with a positive language learning process thus improving their writing skills (Zheng, 2012; Friginal et al., 2017; Chen, 2018; Kuyyogsuy, 2019). Zheng (2012) however discovered an additional pattern which is the passive/passive pattern where both of the students were unable to contribute any input in the peer feedback session which resulted in the lack of improvements in their writing performance. The students who are more proficient in the language and those who have advanced writing skills tend to take the more active role in the session while the more introverted students and those who have lower proficiency tend to take the passive role. However, the 'active' partner can provide either a positive learning environment (e.g., collaborative and expert/novice patterns) or a negative learning environment (e.g., dominant/dominant and dominant/passive) depending on their personality, learning strategies, motives and relationship with the other partner.

4. Methodology

Research Design and Method

Based on the research questions developed, the researcher utilized the qualitative research design to have an in-depth understanding of what patterns of interaction develop students' academic writing performance. To answer the first research question, the qualitative research method of discourse analysis (specifically, conversational analysis) was conducted. The participants' real-time written interaction was the main data collected for the first research question. Conversational Analysis (CA) is a method to analyse the "processes of social interaction, shared meaning, mutual understanding, and the coordination of human conduct" (Goodwin & Heritage, 1990). Although CA was initially used to analyze face-to-face interaction, it was also shown to be effective in analyzing online interaction. Past studies had also successfully implemented CA in analyzing online talk such as examining how people achieve coherence and use strategies to overcome problems in online interaction (Paulus et al., 2016). In answering the second research question, the researchers used content analysis to identify whether there were improvements from their draft to their final version of the essay (in terms of writing performance). This is where the participants were required to write a draft essay before the peer feedback session and they would then be writing a final version of their essays, in which content analysis was used closely by using a writing rubric to see the improvements from the earlier drafts to the final drafts. Thus, the main data collected for the second research question is from the participants' written essays.

Research Participants and Context

The research participants were among the third semester, Teaching English as a Second Language (TESL) students who were studying at a private university in a state on the west coast of peninsular Malaysia. The researchers conducted a purposive sampling technique where a set of criteria were considered by the researchers in the sample selection process. The criteria include having a decent English language proficiency (i.e., from intermediate to advance level of English proficiency), ESL students (i.e., learned English as a second language), and that the participants must (at the time of the research is conducted) enrolled in an academic writing course. After looking at these criteria, six participants were assigned as the sample of this research and they were divided into three pairs. The pairs were chosen by the researchers based on the participants' level of language proficiency (based on their Malaysian Certificate of Education result in their English subject). Table 2 describes the details of the pair for the online peer feedback session.

Table 2. Pairs for the Online Peer Feedback Session

Pairs /Participants' Proficiency	Participant 1 (Proficiency)	Participant 2 (Proficiency)
Pair 1 (Dina and Han)	Intermediate	Intermediate
Pair 2 (Yani and Rose)	Advance	Intermediate
Pair 3 (Mar and Yash)	Advance	Advance

Data Collection

The data collection was conducted at a private university (CU), in a state on the west coast of peninsular Malaysia, specifically in an academic writing classroom (AWS). The research was taken in the classroom throughout the academic semester (i.e., twelve weeks) where one of the researchers acted as the instructor. The course was aimed to develop the students' writing skills in producing academic essays thus it is in line with the nature of the research.

The flow of data collection for this study was based on the academic calendar of the participants. From Week 1 to Week 4, the participants were given lectures, exercises and activities from the syllabus of the course. During week 5, the researchers sought permission from the head of the department, Centre of Language Studies, CU and the

participants themselves for their involvement in the research. In the same week (i.e., week 5), the participants were given the details and instructions of their assignment (i.e., term paper) which will be used for the data analysis. They were required to start finding topics for their term papers. From week 6 to week 10, the participants were given training and tutorials on peer feedback. During this time, the students were expected to write and finish their complete draft individually. For each week during this duration, the instructor monitored the progress of their complete draft.

On week 11, the participants submitted their complete draft to the researcher (for data analysis) and shared it with their peers in Google Docs for the online peer feedback session. In the same week, they conducted the online peer feedback session where they will read their partner's complete draft, provide written comments then later discuss the feedback through the comment section of Google Docs. Once they finished the online peer feedback session, the participants made revisions (if needed) on their drafts and must submit the complete term papers on week 12. They then were interviewed the following week. Appendix A displays a summary of the flow of data collection for this study by academic weeks.

Data Analysis

The first set of data collected came from the written interaction and discussion of the participants in the online peer feedback session. The discussion that they had in the Google Docs via the online chat function was analysed by the researchers. In answering the first research question, discourse analysis is used to analyse the patterns of interaction of the participants. where Storch's (2002) model of dyadic interaction acts as the framework of analysis. As discussed earlier, this model describes the four main patterns of interaction in a dyad (i.e., collaborative, dominant/dominant, dominant/passive, and expert/novice). To categorise the patterns of interaction, it looks at the level of mutuality (i.e., the amount of meaningful contribution given) and also the equality (i.e., the amount of engagement in the peer's direction). These concepts stemmed from Damon and Phelps' (1989) indexes to distinguish patterns of dyadic interaction.

In analysing the interaction, a deductive approach was used. This means that Storch's (2002) model of dyadic interaction acts as the basis of the analysis. Once the interaction has been analysed, the characteristics of the interaction will be compared to match which patterns it belongs to according to the model. Firstly, the researchers identified the Language-Related Episode (LRE) in the discussion. LRE is defined as 'any part of a dialogue where language learners talk about the language they are producing, question their language use, or correct themselves or others' (Swain & Lapkin, 1998). In the case of the interaction, the language-related episode (LRE) refers to when the participants discuss the issues and elements of their writing which includes language, grammar, organization, and references. Once the researchers had identified the number of LREs in the students' interaction, the LREs were analysed based on Damon and Phelps' (1989) indexes (i.e., the level of mutuality and equality) to distinguish patterns of dyadic interaction. After categorizing the LREs based on the indexes, the LREs were categorized based on Storch's (2002) model of dyadic interaction (i.e., dominant-dominant, dominant-passive, collaborative or expert-novice). The researchers calculated the patterns of interaction in all the LREs of a pair, and the highest number of patterns emerged was concluded as the main pattern of interaction of the particular pair.

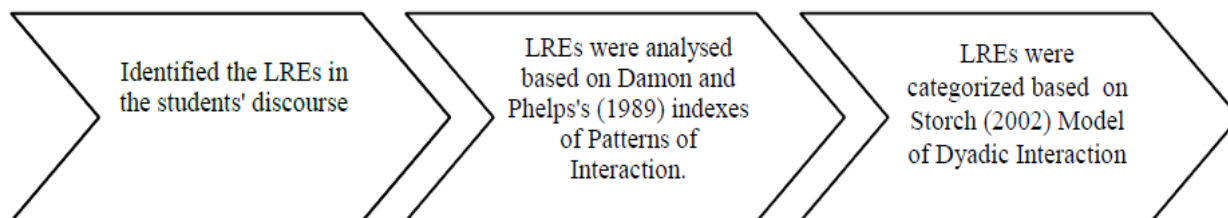


Figure 2. The flow of Data Analysis for Research Question One

For the second research question, a content analysis was conducted on the draft and final versions of the participants' term papers. The researcher assessed both the participants' draft and final versions of the essays and gave marks based on the rubric adapted from Cornell College. The components that were analysed include the topic focus, depth of discussion, cohesiveness, language, sources used and citation techniques with a total score of five marks each. After each component was assessed, the total marks of the essay were calculated. A second-grader was also appointed to mark the participants; earlier drafts and final versions of their essays to ensure the reliability and validity of the findings. The researchers then compared the total marks that they received as well as analysed the elements of writing that were affected. This analysis was connected to the patterns of interaction that emerged in the

pair's online peer feedback sessions. If there were improvements, it can be inferred that the patterns of interaction that they experienced in the peer feedback session helped them to positively develop their writing performance.

5. Results

5.1 What Patterns of Interaction Are Showcased by ESL Students During the Online Peer Feedback Session?

5.1.1 Pair 1: Dina and Han had an Expert/Novice Pattern

The table below shows the total Language-Related Episodes based on the pair's online peer feedback sessions and the patterns of interaction identified from their LRE(s).

Table 4. Language-Related Episodes and Patterns of Interaction (Pair 1)

Patterns of Interaction	Number of Language-Related Episodes	Percentage (%)
Collaborative	0	0
Dominant/Dominant	0	0
Dominant/Passive	0	0
Expert/Novice	13	100
Total Number of Language-Related Episodes	13	100

From the table above, it can be seen that all the language-related episodes from Dina and Han's (pseudonyms) online peer feedback session show that they have an expert/novice pattern in their session. This pair showed that both of them had taken the role of both an expert and novice in certain phases of the session. The role they have taken depends on whose essay they are discussing. When they discussed Dina's essay, Han took the role as an expert and the role switched when they discussed Han's essay where Dina took the role as an expert. Table 6 shows the number of LRE(s) with their specific role in the session.

Table 5. Number Novice/Expert Roles during the Participants' Online Peer Feedback Session

Participants	Number of Roles Identified	
	Expert	Novice
Han	6	7
Dina	7	6

In conclusion, it can be seen that Pair 1 (Dina and Han) showed an Expert/Novice pattern where both of them played both roles in certain phases of their interaction. In regards to these patterns of interaction, it was found that these participants practised the roles of expert-novice wherein these instances, the 1) Experts Gave Most of the Feedback on the Task and 2) Novice are Given Opportunities to Engage with the Feedback.

5.1.2 Pair 2: Yani and Rose Had a Dominant/Passive Pattern

The table below shows the total Language-Related Episodes based on the pair's online peer feedback session and the patterns of interaction identified from their LRE(s).

Table 6. Language-Related Episodes and Patterns of Interaction (Pair 2)

Patterns of Interaction	Number of Language-Related Episodes	Percentage (%)
Collaborative	3	10
Dominant/Dominant	1	3.33
Dominant/Passive	18	60
Expert/Novice	5	16.67
Unidentified	3	10
Total Number of Language-Related Episodes	30	100

From table 6, it can be seen that a majority of the LREs of pair 2 (Yani and Rose, both are pseudonyms) had a dominant/passive pattern of interaction at 60%. Other patterns of interaction were also identified although the percentage was quite low (i.e., expert/novice at 16.67%; collaborative at 10%; unidentified at 10%; dominant/dominant at 10%), making the general pattern of interaction between Yani and Rose during their online peer feedback session was one of dominant/passive pattern. As expected, Yani, who has an advanced English language proficiency level took the dominant role, while Rose, who has an intermediate English language proficiency level, took the more passive role in all of the LREs which have a dominant/passive pattern. The same scenario can also be seen in the other minor patterns identified in their discourse. Yani had a more significant role in giving her own opinion and controlling the task (i.e., being an expert in the expert/novice pattern) compared to Rose who was seen to mostly agree with or acknowledge Yani's feedback (i.e., being a novice in the expert/novice pattern).

In regards to these patterns of interaction, it was found that these participants practised the roles of dominant-passive

interaction wherein these instances the patterns of interaction seen was that of 1) Longer Feedback Given by Dominant Partner and 2) Passive Participant had no Engagement to the Feedback.

5.1.3 Pair 3: Mar and Yash had an Expert/Novice Pattern

The table below shows the total Language-Related Episodes based on the pair's online peer feedback sessions and the patterns of interaction identified from their LRE(s).

Table 7. Language-Related Episodes and Patterns of Interaction (Pair 3)

Patterns of Interaction	Number of Language-Related Episodes	Percentage (%)
Collaborative	1	6.25
Dominant/Dominant	0	0
Dominant/Passive	3	18.75
Expert/Novice	6	37.50
Unidentified	6	37.50
Total Number of Language-Related Episodes	16	100

From table 8, it can be seen that there was only a total of 16 language-related episodes (LRE) in their online peer feedback sessions. The highest percentage of the pattern of interaction identified was the expert/novice pattern with only 37.5%. The other patterns that emerged had a very small percentage: dominant/passive (18.75%) and collaborative (6.25%). Interestingly, the percentage of LRE that the pattern of interaction was unidentified had a similar percentage to the expert/novice pattern at 37.5%, which was also the highest.

Overall, the results showed were very interesting as the expected pattern of interaction should be either collaborative or dominant/dominant for a pair which consists of both students who have an advanced level of English proficiency. Instead, the findings highlighted an expert/novice pattern as one of the majority patterns of interaction in the dyad's discourse.

From the LREs, it can be seen that Mar (pseudonym) took the role as the more 'dominant' partner, i.e., taking most of the role as an expert in the expert/novice pattern and the dominant in the dominant/passive pattern; while Yash (pseudonym), although having the same level of English proficiency, took the more 'passive' role. Mar was seen to provide more constructed feedback in the overall LREs (i.e., eight LREs) compared to Yash (i.e., two LREs). In the 'unidentified' pattern of interaction, it can be seen that Yash stated in a few LREs on how Mar

did very well in her essay, and how it is difficult to find mistakes in it, thus having a low number of LREs on providing feedback to Mar's essay. This strengthens the notion of Yash's role as the novice in the dyad. In addition, there are several LREs (in the unidentified pattern of interaction) in which Mar asked for clarification on Yash's essay, hinting at her 'expert' role in the interaction as she allowed Yash to give her opinion on the task at hand. In conclusion, the unidentified pattern of interaction in the LREs also strengthens the idea that the overall pattern of interaction between Mar and Yash is an expert/novice pattern.

In regards to these patterns of interaction, it was found that these participants practised the roles of expert/novice wherein these instances as the 1) Expert Encouraged Engagement from the Novice on Feedback Given and 2) Expert Gave Compliments Alongside Feedback.

1. *What patterns of interaction are showcased by ESL students during the online peer feedback session develop their writing performance?*

Table 8 displays the marks of the participants' complete draft and their complete essay. The patterns of interaction that emerged in each dyad and the roles they have taken are also included in the table to identify which patterns and roles can positively develop their writing performance. It is important to note that the complete draft was submitted before they conducted the online peer feedback session while the complete draft was submitted after the online peer feedback session, where they were allowed to do revisions on their essay. The total marks of their essay are 30 marks which are based on the rubric adapted from Cornell College.

Table 8. Participants' Complete Draft and Complete Essay Marks

Pair	Participants	Pattern of Interaction	Roles	Draft Essay Marks (30)	Complete Essay Marks (30)	Performance Increase (Differences)
Pair 1	Dina	Expert/Novice	Expert & Novice	18	18	0
	Han		Expert & Novice	22.5	23.5	1
Pair 2	Yani	Dominant/Passive	Dominant	24.5	26	1.5
	Rose		Passive	16	18.5	2.5

Pair 3	Mar	Expert/Novice	Expert	23.75	23.75	0
	Yash		Novice	23.5	23.5	0

Overall, only pair 2 (dominant/passive pattern) showed low to moderate performance increase in writing performance while pair 1 and pair 3 (both having expert/novice pattern) resulted in no development of the participants writing performance. For pair 3, it can be seen that there were no improvements at all showcased by both of the participants in their complete essays.

6. Discussion

Pair 1: Dina and Han

The overall pattern of interaction that emerged during the online peer feedback session of pair 1 (i.e., Dina and Han) showcased an expert/novice pattern where both of them played both roles on an equal amount throughout their discourse. The data showed a total of 13 LREs in their interaction and all belong in the expert/novice pattern. Upon close analysis, it can be interpreted that the pattern consists of 1) Experts Gave Most of the Feedback on the Task and 2) Novice are Given Opportunities to Engage with the Feedback.

Experts Gave Most of the Feedback on the Task

From the analysis of Language-Related Episodes, it can be seen that in most cases, the experts gave most of the feedback on the essay being discussed. The feedback from the expert is usually in the form of comments on certain weaknesses of the essay and suggestions on how to improve. Excerpt 1 shows when Han took the role of an expert when discussing Dina's essay, Han's part in the discourse involved her giving comments and suggestions, although her suggestions were more (e.g., line 105; line 110; line 113) than her comments, in which is in the form of a rhetorical question (Line 102).

Excerpt 1

- 102 H: Dina, should we state the retrieval date?
 103 D: I jot that down in my notes
 104 Maybe I was confused as to where I should put it
 105 H: Okay, make sure you put it later.
 106 D: Okay
 107 But, how to include it if I did not take note of the retrieval date?
 108 hahaha...
 109 erm...
 110 H: Hahaha. Just put whatever dates because that date is when we read the article
 111 D: Just any dates before the 20th?
 112 hahaha... okay.
 113 H: Yes. I don't think you can open back the link one by one.
 114 D: no. :(

Novices are Given Opportunities to Engage with the Feedback

Another key characteristic of the expert/novice pattern is the fact that the novice is given chances to engage with the feedback. They have the opportunity to seek clarification and ask for further suggestions from the expert for them to understand better on the feedback given. Excerpt 2 portrays that after the expert, Dina, had given her feedback on Han's paper (e.g., lines 37 - 38), Han engaged with the feedback by reconfirming to Dina whether her suggestions for improvement can be accepted or not (e.g., 39).

Excerpt 2

- 29 D: Your citation is okay.
 30 Though there are a lot of 'according to'.
 31 H: That's why. I'll change it later.
 32 D: Why not you use different terms?

- 33 It will look better.
- 34 H: okay.
- 35 D: Whatever it is, you need to check on your paraphrasing of ideas.
- 36 H: Yes.
- 37 D: For that one, you don't need to put the comma.
- 38 You just continue.
- 39 H: If I want to include it, there isn't a problem, right?
- 40 D: Try to read it.
- 41 Read first, then add a comma.
- 42 H: Dina, for the feedback on the first paragraph, what do you mean by that? I don't quite get it.
- 43 D: Then you read again without the comma.

These two themes are in line with the findings in Storch's (2002) study where she found out that the expert in an expert/novice pattern will ensure that their discussion will involve himself or herself giving adequate scaffolding for the benefit of the novice. She also discovered that the expert would assist the novice as much as possible so that they were able to learn and improve their knowledge by giving chances to the novice to speak up and give their own opinion in their discussion. Other studies also shared the same characteristics for this pattern (Mufiz et al., 2017; Friginal et al., 2017; Kuyyogsuy, 2019) From the excerpts, when the participants took the role of an expert, they realized that it is their responsibility to help their partner to improve. Realizing this responsibility, they felt that only giving comments will not be enough for their partner to learn. Because of this, they will include suggestions based on their comments to make it more explicit.

The results of their complete essays compared to their complete drafts however indicated that this pair did not have a significant improvement in their writing performance. Dina did not show any improvement in both of her essays, while Han only scored one mark in terms of her writing performance increment. The content analysis of Dina's complete essay showed that she had only five revisions in total where three of them were due to the feedback given by Han. The revisions were mostly in terms of language where most of the feedback given was based on the usage of the pronoun 'I' in Dina's essay. Specifically, Dina had a lot of issues with depth and cohesion in her essay but there were no revisions made on those particular criteria. Upon close inspections, the LREs during the discussion of Dina's essay showed that feedback given by Han did not revolve around the coherence and depth of the essay, but instead focus more on the language and grammar. Even the feedback given on Dina's essay was limited (i.e., 6 LREs out of 13 LREs) thus resulting in a very low number of revisions made by Dina.

Han, on the other hand, showcased a small improvement by 1 mark in her complete essay from her complete draft. The content analysis applied to Han's complete essay displayed a similar pattern to Dina's essay as both of their revisions revolved mainly around language. The total revisions made by Han was, however, higher than Dina (i.e., 17 revisions), where 10 of the revision were based on the feedback given by Dina. The revisions were mostly language-related, usage of non-academic terms also basic grammar. There were also revisions made on the depth of the essay and this was also due to the feedback given by Dina on the lack of restatement of main points in Han's essay. Although the amount of feedback given to Han is similar to Dina (i.e., 7 LREs), the number of corrections and revisions made by Han was more, thus, resulting in a small improvement in her complete essay. In contrast to Dina's essay where there was a lack of feedback on other criteria apart from language, Han's essay, where feedback was also given on the depth of the essay, resulted in her making revision on it, thus leading to a small improvement on that aspect as well.

These findings are not aligned with most past literature where the expert/novice pattern of interaction in the participants' peer feedback session is expected to improve their writing performance. When people cooperate, they will be able to develop their thinking skills (Lantolf, 2013). Vygotsky (1978) also argued that the discussion between an expert and a novice can develop their cognitive skills This is due to the collaborative nature of the expert/novice pattern where the expert will provide feedback and guide the novice partner to understand the feedback given and that the novice partner will also engage in the discussion by seeking for clarification or asking for suggestions.

However, the expert/novice pattern of interaction was not enough to develop their writing performance. Upon close analysis, it was discovered that the quality and the quantity of the feedback given were not up to standard and significant enough to result in a major development of their writing performance. Based on the discourse analysis,

the total number of LREs that emerged during their online peer feedback session was 13 LREs. The low amount of LREs resulted in them having a low number of revisions. The content analysis from their complete essays showed that Dina and Han only made 5 and 10 revisions respectively based on the feedback given. Apart from that, the lack of quality of the feedback might also negatively affect the effectiveness of the peer feedback session despite them having an expert/novice pattern in their discourse – this is because the LREs from the discussion showed that most of the feedback given was only language-related.

The difference in the language proficiency between the two participants in this dyad might also be another reason for the lack of quantity and quality of the feedback given. Since both were intermediate in terms of English language proficiency (which were the same), there was not much room for one participant to be the 'expert' over the other. In other words, there would be a lack of quantity and quality of the feedback, thus the participants did not show much development in their writing performance. This is because, for someone to be an 'expert', they must have more knowledge and skills in writing for them to have more feedback given. If both participants have more or less the same level of skills, there will not be much 'expert/novice' relationship that would deem effective.

Pair 2: Yani and Rose

Yani and Rose showcased a dominant/passive interaction where the former had taken the role as the dominant partner, while the latter had taken the role as the passive partner. The data showed that 60% of LREs in their interaction belong in the dominant/passive pattern. Upon close analysis, it can be interpreted that the pattern consists of 1) Longer Feedback Given by Dominant Partner and 2) Passive Participant had no Engagement to the Feedback.

Longer Feedback Given by Dominant Partner

The LREs showcased that Yani, the dominant partner, had longer sentences and more input when giving her feedback on Rose's essay. The feedback given by the dominant partner in a dominant/passive pattern was usually longer in terms of the depth of the feedback as well as the quantity and length of it. Excerpt 3 highlighted Yani giving a total of 2 different feedbacks (e.g., line 71) on a single LRE. The first feedback is on the organization of evidence in Rose's essay and the second comment is on the relationship of the example given with the evidence. The feedback given by Yani is also longer in terms of sentence length. It is shown that Yani used compound sentences (e.g., lines 71 and 73) instead of simple sentences in giving her opinion. After Rose responded in agreement to her feedback (e.g., line 72), Yani further gave a deeper explanation of her previous feedback in which she explained that the evidence has a very low connection with the previous sentence (e.g., line 73).

Excerpt 3

- 71 Y: I feel like the evidence should come earlier and the example after the evidence doesn't relate to each other.
- 72 R: Okay, I'll change it. Thanks for your opinion love.
- 73 Y: Yeah, because it is way too far from the sentence that relates to it and remember the sentences should relate to each other.

Passive Participant had No Engagement in the Feedback

The major difference between this role compared to the novice in an expert/novice pattern is that the latter has the opportunities to engage with their partner's feedback while the former was seen only agreeing to their partner's comment. In other words, the passive participants either choose not to participate (or rather are not given the opportunity) and not to give their own opinions or ask questions about the feedback given by their counterparts.

In pair 2, it can be seen that Rose took the role of the passive participant in the majority of the LREs while her partner, Yani, took the role of the dominant one. Because of this, Rose did not participate in most of their sessions, instead only agreeing and acknowledging the feedback given by Yani. Excerpt 4 highlighted how Rose only accepted the comments by Yani without questioning them or asking for clarification. The excerpt showed that Yani gave a total of two feedbacks (e.g., line 83 and line 85) and after each of the feedback, Rose responded in agreement in the form of a very short sentence (e.g., line 84 and line 86).

Excerpt 4

- 83 Y: The 3rd and 4th sentences have the same meaning rose!
- 84 R: Okay, I'll stop repeating!
- 85 Y: Yes, basically it's redundant. Academic writing can't be like any normal essay. Maybe you can remove one sentence.

86 R: Okay.

It can be seen that the data analysed in the dominant/passive pattern of interaction usually would involve the dominant partner giving longer comments and more feedback on the particular task at hand. This can be seen from the tendency of the dominant partner to give a "long monologue" (Storch, 2002). In other words, when they gave comments, it would be in either a long sentence (i.e., compound or complex sentence) or a few sentences. Apart from that, past studies showed that the passive participant usually accepts the feedback given and has the willingness to correct the issues pointed out by the dominant partner (Kuyyogsuy, 2019). They also tend to avoid questioning the dominant's feedback and do not contribute anything original (in terms of feedback and opinion) to the task at hand (Storch, 2002).

After they had experienced the peer feedback session, it can be seen that this dyad showed low to moderate improvements in their writing performance (i.e., Yani with a 1.5 mark increase and Rose with a 2.5 marks increase). The findings gathered from Yani and Rose were also not aligned with past literature. The dominant/passive pattern of interaction did not help in developing students' writing skills. The major reason is that it does not encourage a collaborative learning environment. As stated in the previous section, there must be a sense of cooperation and discussion between two individuals on a task to improve their mental capabilities (Lantolf, 2013; Vygostky, 1978). However, the dominant/passive pattern of interaction failed to showcase these criteria.

In the case of Yani, she was seen to have low improvements from her earlier draft and her complete essay (e.g., Table 8). Interestingly, she made a total of 24 revisions in her complete essay and only two of the revisions were a result of the feedback given by Rose. This is no surprise since the total number of feedback given to Yani was only 6 LREs in total. In addition, her role as the dominant partner in the dominant/passive pattern of the dyad's discourse strengthens the reason why there were a very small number of revisions made from the feedback. However, Yani made the other 22 revisions that were not discussed in the online peer feedback session. This might stem from her advanced English language proficiency which can help her to independently notice errors and weaknesses in her essay on her own during the editing phase. Although the revisions made were quite high, most of the changes were not very significant to result in major improvements in her complete essay. The content analysis of Yani's complete essay showed most of the revisions were language-related. The changes include using more suitable words in her description and basic grammar mistakes. She also made some revisions to improve her cohesiveness by adding sentences to make the connection between sentences and also changing the sentence structure, although it was kept to a minimal. Because of these, Yani managed to improve by a little margin (i.e., 1.5 marks) in her complete essay. As a whole, her advanced level of English proficiency played a role in the number of revisions made since she was more aware of conducting a self-assessment on her writing.

Rose, on the other hand, showed a moderate improvement in her complete essay compared to her earlier draft (i.e., 2.5 marks performance improvement). She made the highest number of revisions out of all the participants with 35 revisions and near half of them (i.e., 16 revisions) were based on the feedback given by Yani, the dominant partner. Upon analysis of her essay, it was discovered that most of her revisions were on language and citation techniques. Earlier, Rose had issues with the language and also citation technique in her earlier draft as she only scored 2 out of 5 marks for the specific criteria. In the peer feedback session, most of the feedback given by Yani revolved around these two elements. Rose made major revisions on non-academic terms based on Yani's feedback, the addition of transitional words, as well the omissions of unnecessary and repeated phrases which resulted in her completed essay being better in terms of language. She also showed improvements in her in-text citation technique where errors were predominant in her earlier draft. This was also a result of the feedback given by Yani. Because there were numerous revisions made on these two elements, Rose managed to improve her essay's language and citation technique by 1 mark respectively. Yani also managed to convince Rose to include concluding statements which were lacking in the body paragraph in her complete draft and also improve some of her sentence structure. It can be argued that Rose might have a positive perception of Yani's writing ability and make her confident in applying the feedback given especially the fact that Yani has a better language proficiency than Rose. Although she did not engage much with Yani's comment, Rose felt the comments were already sufficient for her to make the necessary revisions.

Both Yani and Rose showed low to moderate improvements in their complete essay, and it is considered to not be a very significant improvement. The content analysis of their complete essays showed the same pattern as the previous pair. They improved most in the technical aspects of writing (i.e., language and citation). Upon comparing with the findings of the discourse analysis of their peer feedback session, it can be seen that most of the LREs were also focused more on the language (i.e., grammatical aspects) of the essay. There were only a few comments made on the content and organization which were still not enough to make a significant improvement. Because of this, although

the pair managed to show a low to moderate improvements in their complete essay (due to the high quantity of feedback and revisions), the low quality of feedback (i.e., the lack of feedback on other aspects of writing, such as content and organisation) resulted in the development of their writing skills to not be very significant.

Pair 3: Mar and Yash

The pattern of interaction showcased by Mar and Yash is similar to the first pair where an expert/novice pattern emerged in their online peer feedback session. In contrast to pair 1, where both partners had taken the role of an expert and novice, pair 3 showcased Mar to be the expert partner, while Yash to be the passive partner. The data showed that 37.5% of the LREs belong to the expert/novice category and another 37.5% were identified (though it is important to note that there were elements of the expert/novice pattern). The analysis of this pair's interaction displayed two major characteristics mainly the 1) Expert Encouraged Engagement from the Novice on Feedback Given and 2) Expert Gave Compliments Alongside Feedback.

Expert Encouraged Engagement from the Novice on Feedback Given

As discussed in the previous section, the expert in this pair also allowed the novice to engage her feedback. In most of the LREs, it can be seen that Mar, the expert partner encouraged Yash, the novice partner, to give her opinion on the task by asking her questions. Excerpt 10 showcased Mar asking a question to Yash to reconfirm whether her understanding of Yash's main points is correct (e.g., line 16). In the same line, Mar also added a comment (i.e., "correct me if I'm wrong here later") to show that she is open to discussion if her feedback is inaccurate. These two processes showed that Mar encouraged Yash to engage in the discussion by giving her own opinion on the feedback given. As expected, Yash responded by commenting on her process of writing where she forgot to make a connection between addiction and unhealthy habits (e.g., line 17), thus enabling Mar to understand the issue better or whether Yash understood her feedback.

Excerpt 5

- 16 M: Overall, the essay is good. My comment for the introduction is that I think it is better to have evidence to support your facts. So, your facts can be stronger. Then, based on what I read, you have 4 points to discuss, is it? Negative effects of social media: cyberbullying, depression, addiction and unhealthy habits? correct me if I'm wrong here later.
- 17 Y: That's a mistake, I tried to link addiction to unhealthy habits and I forgot to change my introduction. Thank you for correcting, Mar.
- 18 M: Oh, okay. Sure, no problem :))

Expert Gave Compliments Alongside Feedback

Another important characteristic of an expert/novice pattern is the presence of compliments or positive feedback in the expert's comment. In the case of this dyad, Mar included some positive features of Yash's essay before giving feedback on the problems and issues. Both excerpt 10 (e.g., line 16) and excerpt 13 (e.g., 48) showed that Mar began her feedback with a compliment by explaining how the overall paragraph is good before commenting on the minor issues that need to be improved.

Excerpt 6

- 48 M: Overall, the conclusion is good. And you also added the solution to control social media use. Overall, the essay is good too. Just a few mistakes and need to be specific for me.
- 49 Y: Thank you for correcting my mistakes Mar. Appreciate that :)
- 50 M: My pleasure. :-* <3

The characteristics showcased in this pattern are in line with past studies where the expert would give chances to the novice to speak up to understand their thought processes (Storch, 2002; Mufiz et al., 2017; Friginal et al., 2017; Kuyyogsuy, 2019). This is very important as the expert can give more suggestions or explanations based on the novice partner's response. This would ensure that the novice partner can learn from feedback. Apart from that, the technique used by Mar to encourage engagement from Yash is in accordance with a study by Friginal, Lee, Polat and Roberson (2017). They discovered that the expert participant in their study ask the novice participant to explain what should be the possible revision from the feedback, instead of just supplying the answer. The technique of asking questions is preferable to get input from the novice partner on the feedback given. In addition, Kuyyogsuy (2019) discovered that the expert partners gave positive remarks to the novice partner's essay as an act to encourage the novice partner to be active in their discussion which is what was displayed by Mar in their interaction.

This was an interesting finding since both Mar and Yash have advanced English language proficiency. The results of their complete essays' marks, however, displayed that there were no improvements in terms of the writing development which is against past literature. In the case of Mar, the expert partner, she had a total of only three revisions in her essay and all the three revisions came from Yash's feedback. This is expected as the total feedback given by Yash on Mar's essay was only four LREs. Due to this, there was not much to be done on her essay because of the lack of feedback. All the revisions made were language-related, specifically on tenses. However, the revisions did not result in a major improvement of Mar's essay since the revisions were few.

Yash on the other hand also had a similar pattern to Mar where there were no major improvements seen in her complete essay. In contrast to Mar, Yash made more revisions (a total of 12) where 6 of them were based on Mar's feedback. This is also expected as Yash took the role of the passive partner in the expert/passive pattern of discussion. When Mar, the expert partner, gave more constructive feedback and there is room for them to discuss it, the expectation for the passive partner to accept and apply the feedback is rather high. However, Yash showed that she did not apply much of the feedback given by Mar, which resulted in the plateau of marks between the draft and the complete essay. Upon close analysis of Yash's essay, the revisions made were also mostly language-related in terms of the addition of transitional words and avoidance of short forms. This is also due to the fact the feedback given by Mar was mostly on language. As the passive partner in their expert/passive pattern of interaction, it was expected that she makes more revisions and improve her marks in her complete essay. However, the in-depth discourse analysis showed more than that. Although the pattern seemed to be a positive pattern of interaction which encouraged collaborative learning, the type of feedback given, and also the number of feedbacks, were the main issues on why Yash did not show any improvement in her writing performance. It can be seen that most of the feedback given by Mar was more language-related where she focused more on discussing grammatical aspects. There were some comments made on the other elements of writing, such as organisation and coherence, but the quantity was low. Even the overall LREs were low at only 12 LREs. This might lead to the lack of development of Yash's writing performance although the pattern of interaction was seen to be a positive one.

From these results, it is very important to understand that the patterns of interaction in online peer feedback in developing ESL students' writing performance are not straightforward. There are a lot of factors that need to be considered as they will affect whether certain patterns are effective or not for the students. In the case of the current study, the quality and quantity of the feedback as well as the perception of the students of their partner's writing skills affect the effectiveness of their patterns of interaction. As can be seen, some patterns of interaction (i.e., expert/novice) have little to no contribution to improving the students' writing performance while others (i.e., dominant/passive) contributed to low to moderate improvements among the students in which the results contradict to past literature. Because of this, there is a need for future research to consider other factors in their analysis of the patterns of interaction in an online peer feedback environment.

7. Conclusion

Overall, the patterns emerged (especially the expert/novice pattern) and the participants' positive perceptions of the approach shed more light on the use of online peer feedback in developing their writing performance. Upon close analysis, it was discovered that there were bigger factors that diminished the patterns of interaction and positive perceptions of peer feedback's role in improving their writing skills. The quantity and the quality of the feedback given from the discourse analysis also showed that other factors should be considered in looking at the effectiveness of the online peer feedback session in developing writing skills, such as the need to organise more training to give and receive feedback and the inclusion of teachers' intervention during the peer feedback session. The low quantity and quality of feedback in their session resulted in a lack of development in the participants' writing performance.

The findings of this study showed the importance of conducting a discourse analysis on other aspects of the peer feedback approach. This study focused more on analysing the patterns of interaction of the students and identifying whether it developed their writing performance. It was clear the pattern of interaction alone was not a sole factor in determining the effectiveness of the online peer feedback approach. Thus, future research may opt to analyse other elements in the discourse of the participants' online peer feedback session, such as the quantity and quality of the content of their discussion or develop a new framework of analysis for online peer feedback interaction that includes these elements. The findings from this study also showed the importance of training to give and receive peer feedback being implemented to the students and also the inclusion of teacher's intervention if the peer feedback approach is used in a writing classroom. It can be seen that the participants from this study provided lacklustre feedback where all of them covered only the technical elements of writing.

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