



Asynchronous group review of EFL writing: Interactions and text revisions

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Abstract

The current paper reports an empirical study of asynchronous online group review of argumentative essays among nine English as foreign language (EFL) Arab university learners joining English in their first, second, and third years at the institution. In investigating online interactions, commenting patterns, and how the students facilitate text revisions, a three-level analysis of learners' comments in terms of the language functions, nature and focus area, and connections to subsequent text revisions was conducted. The learners produced a number of 1792 comments which were exploratory, including scaffolding and non-scaffolding (72%), procedural (11%), and social (17%) comments. In relation to the nature and focus area, 53% of the exploratory comments were revision-oriented comments—focusing on global ($n = 799$; 84%) and local ($n = 149$; 16%) issues of learners' essays—whereas non-revision-oriented comments (47%) focused on learners' socio-relational space (74%), task management (23%) and technical challenges (3%). The findings also showed that 46% of the overall global ($n = 615$) and only 10% of the overall local ($n = 838$) text revisions were connected to learners' comments, indicating the value of global oriented comments in facilitating learners' global text revisions. Differences of occurrence of these commenting patterns among the three groups were found. Such findings suggest that global text revisions need to be modelled by instructors.

Keywords: Asynchronous Group Review, Interactions, Text Revisions, EFL Learners

Language(s) Learned in this Study: English

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Introduction

Peer work such as peer review plays a role in mediating English as second language (ESL) and English as foreign language (EFL) learners' cognitive processes and pooling their linguistic knowledge (Storch, 2005). It engages learners in reciprocally assisting and directing each other's attention to various problems in their texts (de Guerrero & Villamil, 2000).

Recently, the increasing applications of synchronous and asynchronous technologies to ESL and EFL group learning (e.g., Darhower, 2002; Pena-Shaff & Nicholls, 2004) have attracted researchers' attention to explore learners' interactional dynamics in collaborative writing (e.g., Elola & Oskoz, 2010; Kessler, Bikowski, & Boggs, 2012) and in peer review (e.g., Jones, Garralda, Li, & Lock, 2006; Liang, 2010; Razak & Saeed, 2014). In online peer review, learners engage in questions seeking explanation and justification (Di Giovanni & Nagaswami, 2001), evaluation, clarification and suggestion (Liou & Peng, 2009), and even scaffolding (Razak & Saeed, 2014), involving themselves in a recursive process of reflection and revision of written texts (Saeed & Ghazali, 2016). Interaction in the revision-oriented space means that learners remain on the task, for they target global (content, organization, and purpose) and local (wording, grammar, and punctuation) issues of their texts (Bradley, 2014; Liou & Peng, 2009; Liu & Sadler, 2003; Pham & Usaha, 2015). Yet, most previous studies have disregarded the focus areas of

comments in the non-revision-oriented discourse where learners need to establish a sound social context (Liang, 2010). Although there are a few studies that have looked at the connections of online interaction to learners' text revisions through textual analysis (e.g., Hewett, 2006; Liang, 2010), how learners' interaction facilitates their text revisions in online peer review still needs further investigation. This is because interaction plays an important role in facilitating learners' cognitive processes (Paulus, 2005), meaning negotiation (Foster & Ohta, 2005), construction of knowledge (Choi, Land, & Turgeon, 2005), and text revisions (Liang, 2010). Therefore, the present study aims to address this need by investigating the interactional commenting patterns in an online asynchronous group review of three argumentative essays among nine EFL university learners with mixed levels of English proficiency. Specifically, the study focused on the language functions, the nature and focus areas or scope of their comments, and how the asynchronous interaction facilitates their text revisions or end-products.

Literature Review

Vygotsky's Sociocultural Perspective of Learning

In his sociocultural perspective of learning, Vygotsky (1978) pointed out that individual mental ability is formed within the zone of proximal development (ZPD). The ZPD is "the distance between the actual developmental level as determined by the individual's independent problem-solving and the level of potential development as determined through problem-solving in collaboration with more capable peers" (p. 86). One of the most important implications of the ZPD is in ESL and EFL learning situations where learners are assisted in developing their language competence (Aljaafreh & Lantolf, 1994; Duff, 2007; Lantolf, 2000; Lee, 2008). Learning within the ZPD occurs through "dialogic assistance" (Aljaafreh & Lantolf, 1994, p. 495), also known as scaffolding, that is provided by the instructor or a more knowledgeable individual to a less knowledgeable one (Lantolf, 2000; Lee, 2008; Swain & Lapkin, 1998). However, the ZPD can be extended from asymmetrical dyadic interactions to symmetrical dyadic interactions (Fernandez, Wegerif, Mercer, & Rojas-Drummond, 2001). This implies that scaffolding can be not only a unidirectional assistance provided by an expert or a more capable learner to a less capable learner, but also a bidirectional assistance which is reciprocally provided and received by novice learners while accomplishing their tasks (de Guerrero & Villamil, 2000; Hyland & Hyland, 2006; Ohta, 1995; Storch, 2005; Villamil & de Guerrero, 1996; Yang, 2011; Yang & Meng, 2013).

Interaction as the key element of this theory plays an important role in mediating learning (Ellis, Tanaka, & Yamazaki, 1994). In online group learning, interaction facilitates learners' cognitive processes (Paulus, 2005) such as thinking and reflection (Pena-Shaff & Nicholls, 2004), as well as knowledge construction (Choi et al., 2005). It also helps learners to make decisions and solve problems in their joint tasks (Elola & Oskoz, 2010; Kessler et al., 2012).

Patterns of Learners' Interaction in Online Group and Peer Review

Applications of synchronous and asynchronous technologies in ESL and EFL writing can be "a way to promote interaction about writing through peer response groups" (Ware & Warschauer, 2006, p. 109). In online asynchronous peer review, ESL and EFL learners evaluate their texts, suggest useful ideas for revising texts, clarify their intended ideas or meanings, and offer alterations (Bradley, 2014; Ho, 2015; Liou & Peng, 2009). Similar patterns of interactions are identified by studies combining both asynchronous and synchronous (Chang, 2012) as well as face-to-face and synchronous modes of peer review (Liu & Sadler, 2003). Learners seek explanations and justifications and express agreement and disagreement with their peers' suggestions (DiGiovanni & Nagaswami, 2001) when they interact asynchronously and synchronously. Agreements and disagreements were also identified by Jones et al. (2006) in online peer review. Yet, these studies have not identified instances of scaffolds in dyadic interaction in online peer review. As a process of negotiating information within the ZPD (Lundstrom & Baker, 2009), peer review engages learners in scaffolding each other in the form of making confirmation checks and hints, eliciting and responding to elicitation, instructing on a certain aspect, providing options,

seeking and providing advice or suggestions, using L1, and defining (see de Guerrero & Villamil, 2000; Razak & Saeed, 2014; Villamil & de Guerrero, 1996; Yang, 2011). Such scaffolds carrying an explicit verbal assistance to detect and solve problems are important in group review. Together, the above interactional exchanges that partly inform our analysis of the EFL learners' interactional comments are indicative of how learners verbally assist one another and how they make their reflections on their texts more visible to one another.

Yet, there is still a need to go beyond the above mere categorization of patterns of interactional comments in online peer review and to examine the nature and focus areas of such comments. Regarding this, research on learners' interaction in revision-oriented discourse through asynchronous (Bradley, 2014; Ho, 2015; Liou & Peng, 2009; Pham & Usaha, 2015), synchronous (Liu & Sadler, 2003), or even both asynchronous and synchronous modes of peer review (Chang, 2012) has focused on global issues—such as idea development, organization, audience, and purpose—or local issues—such as wording, grammar, and punctuation. Moreover, online asynchronous peer review assists learners in targeting a higher number of global issues than local issues (see Bradley, 2014; Ho, 2015; Liou & Peng, 2009; Pham & Usaha, 2015). However, Chang (2012) reported that learners' asynchronous interaction targeted more local issues than global issues due to the delayed time between posting a question and an answer as one feature of asynchronous technological tools. According to Hewett (2006), most learners' synchronous interaction focused on writing processes, organization, and thesis statements while the less interaction focused on grammar and mechanics. Liang (2010) also found that content-related interaction outnumbered meaning and error correction in online synchronous peer review. Such results emphasize learners' critical evaluation of the global aspects of texts in peer review (Lundstrom & Baker, 2009), including content refining, idea organizing, and thesis statement stating (Jones et al., 2006).

Virtual collaborative writing enables learners to interact in the social space (Elola & Oskoz, 2010) where they can establish relationships as a community (Kessler et al., 2012). Yet, most researchers disregard learners' interaction in the non-revision-oriented discourse except Cha and Park (2010) and Liang (2010). These two exceptional studies reported that interaction in the social space helped learners establish a shared social context and maintain relations, which informed our analysis of comments in this study.

Relationships between Interactions and Text Revisions in Online Peer Review

Another focus of previous research is how synchronous and asynchronous interactions facilitate learners' text revisions. Only a few researchers have investigated this by textually linking text revisions to learners' interactions. For instance, Hewett (2006) found that learners could incorporate most of their synchronous interaction into their text revisions, but did not report any formal connections in the study. Moreover, Liang (2010) reports that EFL learners' synchronous interaction facilitated their text revisions, though this differed among the groups of learners according to the tasks. The tasks in this study were writing a book review and a research paper review. It was found that for the book review task, two groups integrated most of their content-related interaction into their text revisions. However, for the research paper revision, only a very small proportion of text revisions were linked to learners' interaction as learners made most of the text revisions based on their own decisions and other interactional processes such as social interactional comments. According to Liou & Peng (2009), learners' incorporation of the asynchronous interactional comments in their text revisions was not high due to their unwillingness to revise texts based on comments. Pham and Usaha (2015) found that comment-based text revisions were at higher levels (sentence) while self-made revisions were at lower levels (word and phrase) in online asynchronous peer review. Yet, these last two studies did not provide any evidence of the interaction-revision connections.

From the above studies in online peer review, some studies focused on learners' asynchronous peer review (Bradley, 2014; Ho, 2015; Liou & Peng, 2009; Pham & Usaha, 2015; Razak & Saeed, 2014) while others focused on synchronous peer review (Hewett, 2006; Liang, 2010; Liu & Sadler, 2003). A few combined both modes (Chang, 2012; DiGiovanni & Nagaswami, 2001). This suggests the need to further investigate the role of asynchronous peer review in engaging learners in both revision-oriented and non-revision-oriented discourses of interaction. The delayed time in asynchronous interaction facilitates

learners' reflection on their learning (Pena-Shaff & Nicholls, 2004). However, this still needs to be further substantiated by an empirical textual analysis. Therefore, the current study looks at online interactional comments and text revisions among nine EFL Arab university learners enrolling at three levels of English: first level, second level, and third level. Heterogeneously composed groups, in terms of their language levels, are more productive in online group learning, especially when they work together as a group (Resta & Laferrière, 2007; Zhao, Sullivan, & Mellenius, 2014). Specifically, by looking at the group review activities beyond the classroom space in an online learning community via a Facebook group, this study attempts to answer the following research questions:

1. What are the interaction commenting patterns identified in the online asynchronous review of argumentative essays among the three English-level groups of EFL learners?
2. How do the interactional comments facilitate learners' text revisions of argumentative essays?

Context of the Study

The current study was carried out in an online learning community (an open Facebook group connected to a forum) that was created by the researchers and two tutors in June 2011 as an out-of-classroom space for EFL learners to enhance their English. Unlike most of the above previous studies on online peer review, the current study used a Facebook group allowing EFL learners to create online learning communities where they could engage in shared activities in English beyond the classroom (Mazman & Usluel, 2010; Razak & Saeed, 2014). Moreover, their interaction in Facebook could be facilitated by features such as like, unlike, comment, poke, share links, pictures, videos, and message exchanges via chats (Shih, 2011). In this study, the EFL learners were members of this open Facebook group who interacted in English on various topics with their peers and other members of the group. This motivated the researcher and instructor to engage them in peer review activities as well. Moreover, the structure of Facebook groups suits the nature of group learning in studies framed within the sociocultural theories (Kabilan, Ahmad, & Abidin, 2010). Facebook groups can be also useful for learners' peer review activities, especially if the instructor pins posts or posts links shared from a forum in order to avoid the destruction of other posts in the group (Razak & Saeed, 2014). Yet, its utility among learners for educational purposes (McCarthy, 2013) still needs further research. Therefore, in this study, the online instructor shared the link of each review discussion including the instruction and first draft of each essay from the forum (see [Figure 1](#)) to the Facebook group and pinned it for learners to read. As the learners clicked on the link shared from the forum, they were able to read the first draft in that link with the instruction, but they interacted and commented under these pinned links of the activities in the open Facebook group. This enabled them to comment without being disturbed by other daily posts in the open Facebook group. The comment functions in the Facebook (as shown in the visualized two comments) also enabled the learners to point at the part of the essay being revised and the peers being addressed by mentioning their Facebook ID.

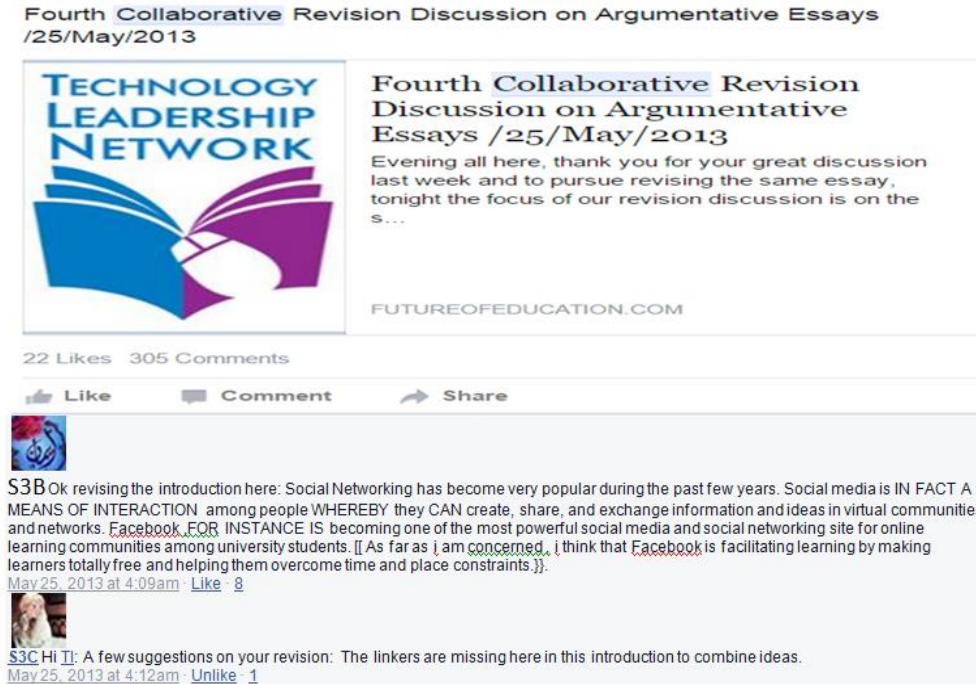


Figure 1. A sample pinned peer review discussion shared from the forum to the open Facebook group with a sample comment.

Participants

The participants in this study were nine EFL Arab university students (8 females and 1 male). As may be seen in Table 1, the participants represented three different levels of English based on their university years: first year, second year, and third year. The First Year Group consisted of S1A, S1B, and S1C; the Second Year Group consisted of S2A, S2B, and S2C; and the Third Year Group consisted of S3A, S3B, and S3C. The three groups were selected based on their needs, interests, and willingness to enhance their argumentative essays through group review.

Table 1. Profiles of the Samples in the Current Study

ID Name	Country	Gender	University Year in English
S1A	Algeria	F	First year
S1B	Yemen	M	First year
S1C	Saudi Arabia	F	First year
S2A	Syria	F	Second year
S2B	Algeria	F	Second year
S2C	Yemen	F	Second year
S3A	Sudan	F	Third year
S3B	Tunisia	F	Third year
S3C	Tunisia	F	Third year

Research Procedure

Prior to the online group review reported in this study, the online instructor engaged the learners in

preparation, pre-writing and writing, and training stages highlighted in blue (see Figure 2). In the preparation stage, the online instructor suggested the idea of group review in the online learning community and selected writing argumentative essays based on the needs of the nine participants who were members of the community. This stage also focused on exposing the learners to sample argumentative essays, dividing them into three mixed groups (each group of three learners with three levels for the pre-writing and writing activities) and topic selection. This stage ended with the creation of three separate Facebook groups (each group was exclusively accessed by the three learners, the instructor and the researcher). Each mixed group pre-wrote and wrote their first drafts based on the topics selected by them ($N = 3$ first drafts) and submitted them to the online instructor. Ferris and Hedgcock (2013) emphasized the need for effective preparation of learners through training and explicit instruction in peer review to enable them to generate valuable online comments that enhance their text revisions (see also DiGiovanni & Nagaswami, 2001; Liang, 2010). Therefore, the instructor trained the three groups on peer review in the open Facebook learning group. He acted as the overall facilitator who provided explicit instruction in the form of probing questions (see Appendix A) and guided them in the process of revision discussed below.

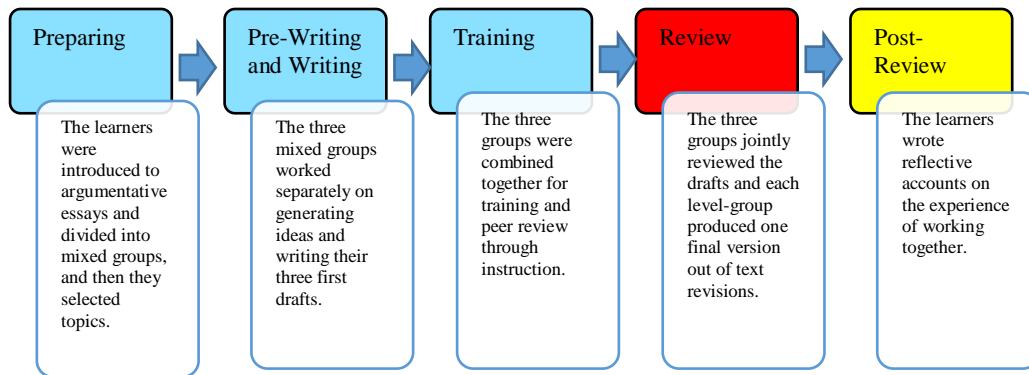


Figure 2. Stages of the study procedure.

The findings of this study are exclusive to the group review stage highlighted in red in Figure 2 that comprised nine weekly review discussions (each discussion lasted for three hours). In each session (three discussions), the learners had to revise one essay together by commenting and posting multiple text revisions (see Figure 3). Of the multiple text revisions, each English-level group (three learners joining the same level) had to produce one final version ($N = 3$ final versions for each first draft). The tutor and researcher were both virtually present in each group review discussion. The tutor also posted comments as scaffolds when necessary (e.g., in situations of ambiguity). His other comments functioned as announcing and coordinating the activities (e.g., redirecting the learners towards the revision process). The post-review stage was concerned with posting questions seeking learners' reflection on their experience in the form of writing one reflective account each. The study used learners' interactional comments and text revisions as primary sources of data collection and sample reflective statements extracted from learners' accounts as a secondary source.

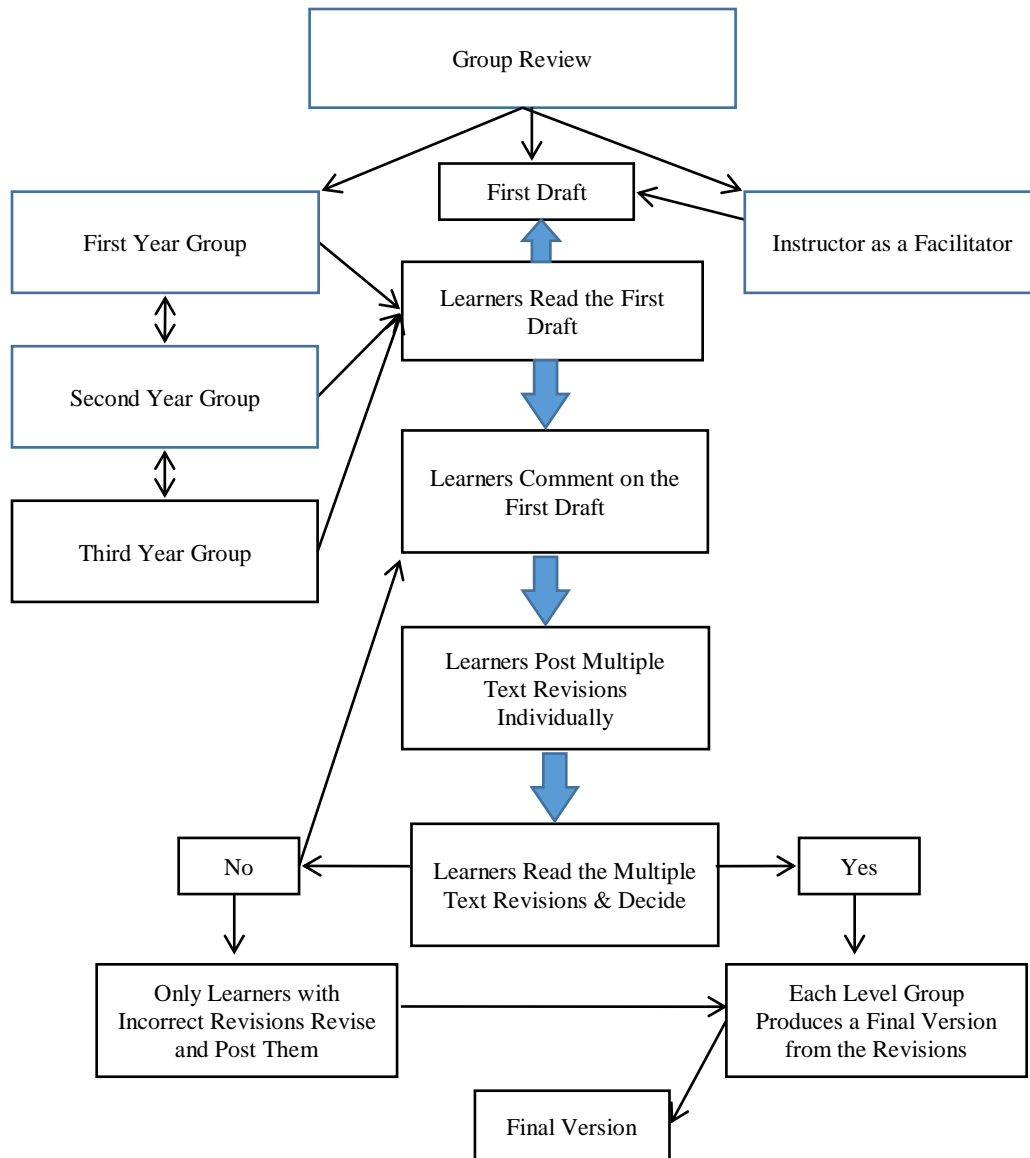


Figure 3. An illustration of revision process.

Data Analysis

The analysis of the data was carried out at three levels. The first level focused on the online interactional commenting patterns following a coding scheme developed from previous research reviewed above. Regarding this, we read each single comment carefully and identified all patterns of comments based on their language functions (see [Appendix B](#)). We analyzed inductively the rest of the comments that did not fit the coding scheme. Then, we clustered all of the interactional comments into exploratory, procedural, or social based on whether a comment was about learners' explicit reflection on the task, the procedure of revision, or social aspects. Finally, we further categorized the exploratory category into scaffolding and non-scaffolding comments based on whether a comment had an explicit evidence of verbal assistance (e.g., drawing learners' attention to a particular problem, assisting them to propose a solution to it; see de Guerrero & Villamil, 2000; Villamil & de Guerrero, 1996). In addition, we traced the directions of the scaffolding comments based on our own guiding questions: (a) Who provided the scaffold? (b) Who received it? (c) Are the scaffolders and scaffoldees from the same or from different English-level groups? The aim of this was to identify whether scaffolding was just unidirectional or bidirectional.

The second level of analysis dealt with learners' interactional comments in terms of its nature and focus area, based on the taxonomy of Liu and Sadler (2003). At this level, we also read each comment and coded it in terms of its nature as revision-oriented or non-revision-oriented. Moreover, for the comments in the revision-oriented discourse, we identified the focus area of each comment: global (content, organization of ideas, audience, and argumentative genre awareness) or local (meaning or lexical appropriation, grammar, and punctuation; see [Appendix C](#)). For learners' comments in the non-revision-oriented discourse, we analyzed their focus areas by referring to a few previous studies (Cha & Park, 2010; Liang, 2010) and categorized them into socio-relational or mechanical challenges.

The third level of analysis aimed to investigate the connections between learners' interactions and text revisions. Prior to this, we highlighted the learners' text revisions and identified their levels (below-word, word, phrase, clause, sentence, or above-sentence) and focus areas (global or local). As shown in [Table 2](#), in the first sample, S2A made a sentence-level addition to the pre-revised counterargument, which focused on elaborating the content. In the second sample, S1B made a word-level substitution that focused on appropriate meaning. After this, we traced the connections between text revisions and interactional comments. For the global text revisions, especially for content or idea development and elaboration, we used a textual analysis adopted from Hewett (2006) and Liang (2010). Regarding this, we highlighted words, phrases and even clauses in learners' global text revisions which were textually linked to their interactional comments. For other global text revisions (e.g., organization, audience, and argumentative genre) as well as for local revisions, we just searched for signals and evidences from learners' interactional comments preceding text revisions (see [Appendix D](#)). This aimed to identify learners' comment-based revisions and self-made revisions (Liou & Peng, 2009). Finally, we carried out a thematic analysis of learners' reflective accounts on their experience and identified themes supporting the findings obtained from comments and text revisions.

Table 2. *Sample Analysis of Global and Local Text Revisions*

Pre-Revised Segment	Revised Segment
Secondly, others might argue that there are no equal capacities in these groups, which makes it difficult for them.	S2A: Secondly, others might argue that there are no equal capacities in these groups, which makes it difficult for them. For example, some learners need to improve their language skills while the others want to be efficient writers, and that may cause some learners' reluctance to continue learning if not given the task they need.
The main core of higher education is basically related to the broad base of knowledge that students should acquire.	S1B: The main purpose of higher education is basically related to the broad base of knowledge that students should acquire.

Two coders were trained on coding learners' comments and text revisions. In the first round, the inter-rater reliability was only 79%. However, the two coders discussed their cases of disagreement until they reached an agreement with a rate of 93%. One of the researchers was the second coder.

Findings

Learners' Interactional Commenting Patterns

The EFL learners posted a large overall number of asynchronous interactional comments ($N = 1792$) which were exploratory, procedural, and social interactional comments (see [Table 3](#)). The exploratory comments ($n = 1290$; 72%) were divided into scaffolding and non-scaffolding comments. The scaffolding comments carried an explicit evidence of the verbal assistance provided and received by the learners in attending to and solving a particular trouble in their essays (see [Appendix B](#)). The learners engaged in seeking and providing suggestions, eliciting and responding to elicitation, asking questions in the form of

confirmation checks and hints to the other learners, providing options or alternatives, instructing in the form of a mini lesson on a certain aspect, and defining. Overall, the learners posted 228 (18%) scaffolding comments that were distributed among the Third Year Group ($n = 137$; 11%), Second Year Group ($n = 69$; 5%), and First Year Group ($n = 22$; 2%).

Table 3. Commenting Patterns among the Groups

Exploratory	First Year Group	Second Year Group	Third Year Group	Overall
Exploratory				
Scaffolding	22 (2%)	69 (5%)	137 (11%)	228 (18%)
Non-scaffolding	233 (18%)	311 (24%)	518 (40%)	1062 (82%)
Procedural	37 (20%)	57 (29%)	104 (51%)	198 (100%)
Social				
On-Task	38 (13%)	62 (20%)	43 (14%)	143 (47%)
Off-Task	31 (10 %)	52 (17%)	78 (26%)	161 (53%)

Moreover, as can be seen in [Figure 4](#), identification of the directions of the above scaffolding comments as situated in the asynchronous interaction showed the bi-directional nature of scaffolding between learners in the same level-group and in different English-level groups. In each group, the arrows connecting each two learners show the bidirectional nature of scaffolds in dyadic interactions (except S1A–S1B in the First Year Group and S2B–S2C in the Second Year Group). The bi-directional arrows connecting each group show that scaffolds were not exclusively directed from a higher English-level group to a lower English-level group, but rather in both directions. The green, blue, and red colors stand for the scaffolds provided by the First Year Group, Second Year Group, and Third Year Group, respectively.

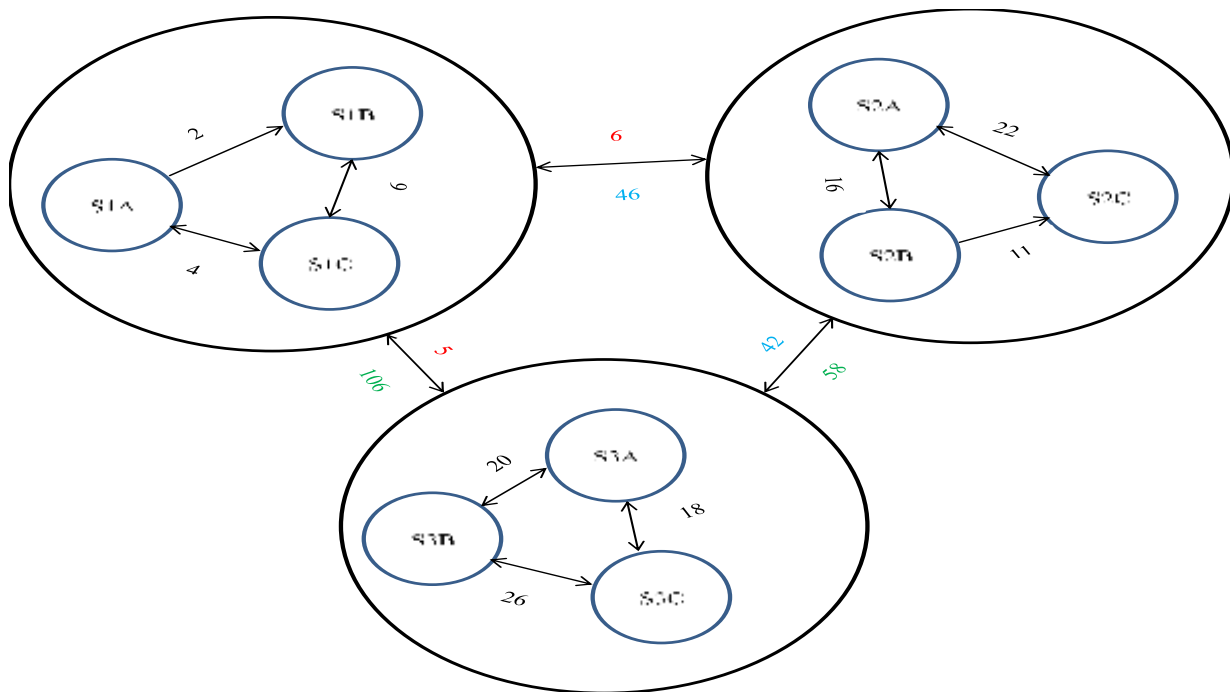


Figure 4. A diagram representation of directions of learners' scaffolds.

[Excerpt 1](#) illustrates the above bi-directional nature of scaffolds between two learners in the same level-group (S2A–S2C) and different level-groups (S2B–S3A). Such overt scaffolding comments in the form of dyadic question–response exchanges assisted each pair of learners in identifying problems and solving them. Both examples of reciprocal scaffolds show how each pair of learners acted as an expert and a novice, becoming reciprocal sources for each other.

[Excerpt 1.](#)

S2A: Sorry “For, they can’t be wholly adopted in all education fields; and more than that?”

S2C: Yes ‘for’ here means because, giving reasons.

S2A: Thanks.

S2C: Im doubting the structure of this sentence: Too, facebook group may lose some of the exciting!? How?

S2A: we should use another linking device “Moreover. ...” etc.

S2B: so, I suggest this question: what are the advantages that make social networks a “vital” element in each one life? How?

S3A: OK. We can replace the word ‘vital’ by saying “a part of each one life”! How about that?

S2B: we can say “important or essential” too.

S3A: Agree with you. What are the advantages that make social networks an important element in each one life?

Scaffolds among more than two learners show instances of collective scaffolds. In the [Excerpt 2](#), each learner provided a different suggestion (e.g., deleting phrases, modifying the structure, etc.). The different scaffolds contributed to the quality of S3C’s draft.

[Excerpt 2.](#)

S3C: well if any other suggestions to clarify the idea why not?

S2B: I think we need to eliminate a few phrases from it.

S1A: the introduction should be clear.

S2A: I agree with you. We should make it clear as it was little confusing when reading it.

S3B: ok, I think that the last idea needs to be modified.

S2C: Exactly, because the alternation of ideas made me lost while reading it.

S3A: hi the structure needs to be slightly changed as to avoid the problems of confusion and the repetition.

S1B: we can just re-organize the phrases and it will be fixed.

S1C: you need to change the structure of the sentences and replace few words to get rid of the confusion and the repetition like proclaiming that' repeated in the same sentence.

The learners also engaged in non-scaffolding exploratory comments ($n = 1026$; 82%) that visualized their cognitive reflection on the texts (see [Appendix B](#)). They functioned to evaluate, seek or provide clarification and justification, and check or confirm understanding or comprehension of a given point in the text. Other comments served to check or express certainty and knowledge versus a lack of certainty and knowledge or to agree on certain suggestions. The learners also engaged in situations of disagreement

or rejection of suggestions, but through persistence, elaboration, and interpretation of intended ideas or meaning, they could usually reach an agreement. They were involved in speculating, detecting problems, summarizing main points, and comparing various revisions. The Third Year Group posted the highest proportion of the non-scaffolding comments ($n = 518$; 59%), followed by the Second Year Group ($n = 311$; 56%) and the First Year Group ($n = 233$; 18%).

The qualitative analysis of the learners' reflective statements also supported the above reciprocal and collective scaffolds as some learners stated:

We also correct each other's written ideas, discuss and scaffold till we all agree on the best version of each. (S2A)

Many especially those who have great ideas, but a limited ability to use a foreign language i.e their style of writing is restricted may accomplish a great work with the help of the other members who are gifted with better writing skills. (S3B)

Other learners also realized the importance of their interaction in facilitating their reflection on their texts by stating that online interaction enabled them to analyze the ideas:

It helps so much to exchange information among members by analyzing each idea they wrote. (S2B)

Plus, not just exchanging, but discussing it, which is more interesting. (S3A)

The procedural comments referred to the learners' interactions on the routine execution of the task of revision, such as handling the task, seeking or providing information about it, providing directives, task-organizing, and pointing at part of the essay (see [Appendix B](#)). They recorded the least occurrence ($n = 198$; 11%), distributed among the Third Year Group ($n = 104$; 51%), the Second Year Group ($n = 57$; 29%), and the First Year Group ($n = 37$; 20%).

The social interactional comments ($n = 304$; 17%) were divided into on-task ($n = 143$; 47%) and off-task comments ($n = 161$; 53%). The on-task comments served as reactions and were thanking or welcoming exchanges with smiley symbols, praising peers, and expressing surprises. The off-task comments were those social comments on irrelevant matters such as greetings and checking one another's wellbeing, as well as other non-social comments such as encountering technical problems (see [Appendix B](#)). The Second Year Group produced the largest number of on-task interactions ($n = 62$; 20%), followed by the Third Year Group ($n = 43$; 14%) and the First Year Group ($n = 38$; 13%). However, for the off-task social interactions, the Third Year Group produced the highest proportion, followed by the Second Year Group and the First Year Group.

Focus Areas of Interactional Comments

The second-level analysis of the nature and focus areas of the interactions showed that 948 exploratory comments (53%) were revision-oriented comments that focused on global and local issues in the essays. Other exploratory, procedural, and social comments ($n = 844$; 47%) were non-revision-oriented comments. As can be seen in [Table 4](#), the EFL learners posted a higher number of global revision-oriented comments ($n = 799$; 84%) than local revision-oriented comments ($n = 149$; 16%). Moreover, they exchanged a higher number of global comments than local comments in each group. The Third Year Group posted the highest number of global comments ($n = 350$; 37%), followed by the Second Year Group ($n = 270$; 28%) and the First Year Group produced the lowest proportion of such comments ($n = 179$; 19%).

[Excerpt 3](#) shows how these revision-oriented comments focused on global issues of the texts, such as its content (S3C), unity and organization of ideas (S2B), audience (S3B and S1A), and argumentative genre awareness (S1B).

Table 4. *Comments in the Revision-Oriented versus Non-Revision-Oriented Discourses*

	First Year Group	Second Year Group	Third Year Group	Overall
Revision-Oriented				
Global	179 (19%)	270 (28%)	350 (37%)	799 (84%)
Local	25 (3%)	46 (5%)	78 (8%)	149 (16%)
Non-Revision-Oriented				
Socio-relational	114 (14%)	166 (20%)	337 (40%)	617 (74%)
Task management	37 (4%)	57 (7%)	104 (12%)	198 (23%)
Technical Challenges	6 (1%)	12 (1%)	11 (1%)	29 (3%)

Excerpt 3.

S3C: the content of the introduction could be more clarified. The topic should be controversial which we can't clearly find in the introduction

S2B: This sentence should come after the four sentences we corrected: They are long-term advanced skills which help students learn autonomy and venture so that they will take mature decisions in their future careers.

S3B: The reader feels lost as when looking at the thesis there in the introduction we feel we're going through an expository essay.

S1A: yes the reader cannot get it.

S1B: Since the writer is with, there should be rebuttal for paragraph 2 in the body.

The occurrence of the local revision-oriented comments varied from 78 (8%) for the Third Year Group to 46 (5%) for the Second Year Group and 25 (3%) for the First Year Group. [Excerpt 4](#) illustrates how such comments focused on local issues of the essays such as grammar (S2C), accurate meaning (S2B), and punctuation (S3A).

Excerpt 4.

S2C: The sentence should be either present continues or simple present and the present simple will better.

S2B: Hi change the word "vital" as the word vital means the basic elements of life like food, water. So change it.

S3A: Just pay attention to the punctuation marks in that sentence dear.

S1A: Ok done thank you.

The EFL learners' comments in the non-revision-oriented discourse ($n = 844$; 47%) focused on the socio-relational space ($n = 617$; 74%), task management ($n = 198$; 23%), and technical challenges ($n = 29$; 3%). Their distribution shows that the Third Year Group produced the highest number of non-revision-oriented comments for the socio-relational space ($n = 337$; 40%) and for task management ($n = 104$; 12%). The Second Year Group produced fewer comments for the socio-relational space ($n = 166$; 20%) and for task management ($n = 57$; 7%) and the First Year Group produced the fewest for the socio-relational space ($n = 114$; 14%) and for task management ($n = 37$; 4%). However, all three groups were balanced in respect to their comments on technical challenges (1%). In the socio-relational space, the comments focused on maintaining relationships and creating a friendly atmosphere by valuing suggestions or revisions, praising, and socially supporting one another. For instance, in [Excerpt 5](#), S3B introduced her global comment by a non-revision-oriented comment that embraced the strategy of initially valuing the essay

and praising the First Year Group. She also backed it up with an argumentative motivation.

Excerpt 5.

S3B: Hi dear , of course a GREAT WORK you have come up with.

S1A: thanx dear for sharing your opinion.

S3B: But, sorry, we should mention one clear personal position from the outset honey. Then , we have to present the counter claims and refute them later in order to strengthen our point of view

S1B: Hi dear I want to tell u that we tried in the essay to collect various opinions on the subject without focusing on clarifying our own position.

S3B: Yes this is because not clear whether you are against or for the topic. Just our suggestions.

S1C: Ok thank you we can enhance it now.

The non-revision-oriented comments focused on establishing a sound social context (e.g., exchanging comments on irrelevant matters), while other comments concentrated on task management (23%) and technical challenges (3%), as shown [Excerpt 6](#).

Excerpt 6.

S1B: good evening and have a wonderful time.

S3C: Hi how are you all friends here? Miss you all.

S1A: Hi ^____^ happy Friday.

S3C: Hello you can start reading the paragraph and think about the questions till we are all here?

S2A: Okay , I'll check them now.

S2B: my net again sorry friends for posting mine late.

S3A: hahaha happened to me too!! It is really annoying.

S1C: Ok thank you we can enhance it now.

The learners' reflective statements also supported the above findings as some participants stated that such interaction helped them to identify issues in their texts at both the global and local levels. They also admitted that they commented less on local issues such mechanics or punctuations.

Interaction helped us to focus firstly on the ideas and organization. That happens automatically, I find myself commenting on them. (S1A)

I concentrated on mechanics (spelling and punctuation) because they are the least being paid attention. (S3C)

The learners also valued the asynchronous interaction because of the sound social context where they could maintain good relations characterized by respect:

Esp. when the kind of comments and replying to each other is characterized as being peaceful, respectable and kind, which make u feel more comfortable. (S1B)

Respect and trust can also be maintained in our collaborative work. (S2C)

Relationships between Learners' Revision-Oriented Interactions and Text Revisions

The third level of analysis aimed to examine the learners' global and local text revisions which were subsequently linked to their revision-oriented interactions. The text revisions linked to comments were labeled as comment-based text revisions while the text revisions having no clue of connection to the preceding comments were labeled as self-made text revisions (see [Table 5](#)).

Table 5. *Global and Local Comment-Based Text Revisions versus Self-Made-Text Revisions*

	First Year Group	Second Year Group	Third Year Group	Overall
Global				
Comment-Based	79 (13%)	92 (15%)	111 (18%)	282 (46%)
Self-Made	30 (5%)	65 (11%)	238 (38%)	333 (54%)
Local				
Based on Interactions	32 (4%)	23 (3%)	26 (3%)	81 (10%)
Self-Made	116 (14%)	155 (18%)	486 (58%)	757 (90%)

The number of global comment-based text revisions ($n = 282$; 46%) was lower than that of the global self-made text revisions ($n = 333$; 54%). Moreover, the global comment-based text revisions outnumbered the global self-made text revisions for the First Year Group ($n = 79$; 13 vs. $n = 30$; 5%) and for the Second Year Group ($n = 92$; 15% vs. $n = 65$; 11%). The Third Year Group, however, made a smaller number of global comment-based text revisions ($n = 111$; 15%) than global self-made text revisions ($n = 238$; 38%). [Appendix D](#) provides a sample of how the global comments facilitated learners' global text revisions by textually linking the revisions highlighted in yellow to learners' preceding comments in the discussions. In the sample, the three groups integrated the ideas from both their and their peers' suggestions in their interactional comments by discussing the problem related to inadequate ideas and supporting details. However, it is apparent that while the Third Year Group integrated a few suggested ideas from the comments and added more new ideas and details to the text that were not highlighted in their revised segments, the other two groups integrated such suggested ideas without adding further information (except in one case with S2A). This could support the higher percentages of the global comment-based text revisions made by the First Year Group and the Second Year Group. In other words, the First Year and Second Year Groups relied more heavily on their peers' comments when revising their essays globally. The EFL learners also made global text revisions in terms of unity and organization of their ideas, audience, and argumentative genre awareness, based on their comments.

For the local text revisions, the number of the comment-based text revisions ($n = 81$; 10%) was lower than that of the self-made text revisions ($n = 757$; 90%). There are similar percentages of local comment-based text revisions for the First Year (32%), Second Year (23%), and Third Year Groups (26%). Samples of how learners made local text revisions in terms of sentence structure based on their comments are provided in [Appendix D](#). Yet, when comparing the local and global comment-based text revisions, the overall number of local comment-based text revisions ($n = 81$; 10%) was lower than that of the global comment-based text revisions ($n = 282$; 46%). This can be seen in each group as well. This indicates that the learners' integration of comments into the global text revisions is higher than their integration of comments into their local text revisions. It may also be due to the lower percentage of the local comments posted by the learners. Moreover, the learners might have preferred to make local text revisions by themselves rather than making them based on their interactional comments.

Some learners pointed out that asynchronous interactions played a role in facilitating their text revisions. They stated that they could revise their texts based on comments and that they could seek for further clarification and accordingly fix their essays.

The activities provided me the chance to write and edit my ideas to feedback. (S3C)

We get the chance to interact and ask for further explanations so we can get the idea fixed in our revisions. (S1C)

Discussion

The purpose of this study was to investigate online interactional commenting patterns and how they facilitated text revisions in asynchronous group review among three English-level groups of EFL learners. For the first research question concerning the EFL learners' online interaction commenting patterns in the asynchronous review, the findings provided an in-depth understanding of learners' interactional commenting patterns. Overall, the learners highly engaged with the task of reviewing, as it was substantiated by their highest number of exploratory comments. Part of this category, referred to scaffolding comments, provided explicit evidence of the verbal assistance reciprocally exchanged by the learners in the three groups. In line with results of previous research, the findings showed that EFL learners engaged in seeking and providing advice (de Guerrero & Villamil, 2000; Villamil & de Guerrero, 1996; Yang, 2011), eliciting and responding to elicitation, and asking questions in the form of confirmation checks and hints (de Guerrero & Villamil, 2000; Villamil & de Guerrero, 1996). They also assisted one another by providing options or alternatives, instructions in the form of mini lessons on a certain aspect (de Guerrero & Villamil, 2000; Villamil & de Guerrero, 1996), and defining (de Guerrero & Villamil, 2000; Razak & Saeed, 2014). Such scaffolding comments as mediated assistance within the ZPD show how the learners guided one another to attend to a particular trouble that needed to be solved (de Guerrero & Villamil, 2000). Within the sociocultural theory, scaffolding is not only unidirectional assistance provided by a more capable learner to a less capable one (e.g., Duff, 2007; Swain & Lapkin 1998), but also bidirectional or mutual assistance (de Guerrero & Villamil, 2000; Hyland & Hyland, 2006; Ohta, 1995; Storch, 2005; Villamil & de Guerrero, 1996; Yang, 2011; Yang & Meng, 2013). In such dyadic scaffolding comments shown above, each learner (either less or more proficient) acted as a reciprocal source of information for the other learners. This finding, which supports those of previous research (Yang, 2011; Yang & Meng, 2013), showed how reciprocal scaffolding assisted the EFL learners to refine their texts.

Other exploratory non-scaffolding interactional comments did not carry explicit evidence of verbal assistance. Nevertheless, they corroborated their importance in making learners' reflections and critical evaluations of the task visible, especially in the online learning context (Pena-Shaff & Nicholls, 2004; Paulus, 2005). This is because they showed learners' evaluations of various aspects of their texts. Online asynchronous group review was also a process of negotiation by which the EFL learners sought and provided explanations and justifications, confirming what DiGiovanni and Nagaswami (2001) identified in asynchronous and synchronous peer review. Working as a group, the EFL learners engaged in situations in which they disagreed or rejected their peers' suggestions and revisions (DiGiovanni & Nagaswami, 2001; Jones et al., 2006). Moreover, the EFL learners commented on the procedure of revision itself and on irrelevant or personal matters. Such comments, as part of the learners' asynchronous interaction in the non-revision-oriented discourse in this study, were also reported to be inseparable from learners' interaction in synchronous peer review (Cha & Park, 2010; Liang, 2010).

In terms of the nature and focus areas of comments, overall, the EFL learners exchanged a higher number of revision-oriented comments than non-revision-oriented comments, which supports results of most of previous studies in online asynchronous (Bradley, 2014; Ho, 2015; Liou & Peng, 2009) and even synchronous peer review (Chang, 2012; Hewett, 2006; Liu & Sadler, 2003). Moreover, largely corroborating results of these studies (except Chang, 2012 and Liu & Sadler, 2003), the number of comments targeting global issues was higher than those targeting local issues. This could be due to the explicit instruction in the training stage that placed an emphasis on the global concerns of texts. Opposed to Chang's (2012) results showing that asynchronous interaction in peer review focused mostly on local issues of texts, it appears that the delayed time in the asynchronous review in this study allowed the EFL learners to reflect on more global issues of their essays—a merit of asynchronous interactions for learners

(Choi et al., 2005; Paulus, 2005). However, this needs learners' virtual presence at secluded hours. Otherwise, Chang (2012) found that the delayed time might have caused a lack of interaction, disabled student-reviewers to know peers' intentions, and consequently shifted their attention to local aspects. In this study, the EFL learners' non-revision-oriented comments, with the highest percentage focusing on the socio-relational aspects such as establishing and maintaining social relations, support the learners' social talk reported by Cha and Park (2010) and Liang (2010), as well as task management and technical challenges in asynchronous peer review (Liang, 2010).

Distributions of the above commenting patterns among the three groups differed according to the level of each group in English. This explains how a higher English-level group was more linguistically capable of contributing to the essays than the other two groups by scaffolding peers, reflecting on the text, and targeting global and local issues. According to Lundstrom and Baker (2009), this underlies the linguistic ability of learners in lower levels as an important pedagogical issue in mixed group reviews. The First Year Group was still learning how to engage in peer review and seemed to encounter difficulty when trying to target more global issues. Another possible issue, reported by Liang (2010), could be the learners' knowledge of the topic of each essay, especially since the EFL learners reviewed three essays on three different topics in this study. Overall, each group posted a higher number of comments than the lower level groups in the non-revision-oriented discourse. The only exception was the on-task social comments—as the Second Year Group posted the highest number of such comments. This implies that this group reacted to other groups' comments most frequently by thanking, agreeing and disagreeing, or praising their peers for their comments.

For the second research question regarding how the asynchronous interaction facilitated learners' text revisions, this study yielded interesting findings. In spite of the lower percentage of the global comment-based text revisions, it was interesting that the global comments helped the learners to refine their texts. This means that the value of synchronous interaction in facilitating learners' content-related revisions reported by Hewett (2006) and Liang (2010) can be applicable to the EFL learners' asynchronous interaction. This finding also supports those of Pham and Usaha (2015), who reported that learners made more text revisions at higher levels based on their asynchronous interactional comments. The different percentages of the global comment-based text revisions among the three groups were attributed to the quality and quantity of interactions and the texts in Liang's (2010) study. Similarly, the percentages of the global comment-based revisions for the First Year Group and the Second Year Group were higher than those for the Third Year Group. This is indicative of the role of asynchronous interaction in assisting less proficient learners to make global text revisions. However, unlike Hewett's (2006) and Liang's (2010) results, the local comments in this study also facilitated local text revisions. Yet, the number of such local comment-based revisions was lower than the global comment-based text revisions.

Implications and Conclusion

Investigating learners' asynchronous interaction in the revision- and non-revision-oriented discourses provides EFL instructors with an overall view of group dynamics that do not devalue one space at the expense of the other. While the first space indicates that learners remain on the task by revising their texts locally and globally, the latter space reflects how they establish a sound social space for maintaining good social relations that can contribute to their pursuit of online group review. Moreover, the delayed time in such asynchronous group review fosters learners' reflection on their texts. Still, this cannot guarantee the interactive nature of group review without training or the virtual presence of learners and instructors at fixed hours. Facebook groups as asynchronous tools can be of an instructional value for group review beyond the classroom context, as they facilitate meaningful interactions and text revisions.

Given that the findings are not yet conclusive, future research will need to address some issues based on some of the limitations in this study. First, the small number of EFL Arab participants and their heterogenous levels in English limit the generalizability of findings to other peer review situations among

learners with homogenous levels. Therefore, the findings should be interpreted carefully. Moreover, the delayed time in the asynchronous review could have fostered learners' reflection on global concerns of their essays, and thus affected the findings. Therefore, future research should combine both asynchronous and synchronous tools for peer review in order to provide further insights into the similarities and differences between the two modes. The present study focused on the contributions of each English-level group while future research should focus on the contributions of each learner in each group. Finally, the findings showed that the instruction could assist learners to model global aspects, especially in their comments. Yet, learners producing fewer global text revisions suggests the need for further modeling text revisions by instructors in the training stage.

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Appendix A. The Instruction on Modeling Writing Revision

1. **Content of the paragraph:** Make sure you focus on the content of the essay by following these four aspects and questions:
 - What do you think of the content of the essay?
 - Do the ideas and supporting details give sufficient information about the topic?
 - Are these ideas and supporting details clearly expressed for readers?
 - Are the ideas and supporting details relevant?

2. **Unity and Organization:** Make sure you focus on the unity and organization of the ideas and paragraphs in the essay by following these four aspects and questions:

Are the ideas and details in the parts of the essay organized?

Are these ideas and details coherent? Or are there sentences that need to be linked through cohesion devices?

Are the ideas and details in the paragraph well organized or logically sequenced?

Do you see that all ideas and supporting details make up a well-unified essay?

3. **Argumentative Genre:** Make sure you focus on the various aspects of argumentative essays:

Does the author take a clear stand or position in the thesis statement?

What do you think of the claims presented in the body of the essay?

Are they strong enough to support the author's stand?

And what about the counter-claims or opposing claims in the body of the essay? Has he or she highlighted these opposing claims well?

Does the author refute these opposing claims?

Does the author use accurate language signposts to introduce the opposing claims and rebuttals?

4. **Language:** Make sure you focus on the language (meaning and grammar) of the essay here by answering these questions:

Do you see that the linguistic items (words, phrases) used accurately express the intended meaning?

Do you think that these linguistic items give the intended meaning or clearly express the ideas?

Do you see that the sentences are grammatically accurate or correct?

What about the sentences? Are they well structured?

5. **Mechanics of the Paragraph:** Make sure you focus on the spelling, capitalization, punctuations, and so forth.

Note: In case, you see that there are problems with the above aspects in relation to the questions, please state the problem clearly, clarify it, give good reasons why, and provide examples as evidence. You can also suggest what should be done to correct it.

Appendix B. Coding Scheme of Learners' Patterns of Online Interaction Comments Based on Discourse Functions

Exploratory Comments

Type	Definition	Sample
Scaffolding		
Requesting advice	Asking for suggestions	S2A: Great !! So now <i>any other suggestions</i> for the second paragraph?!
Advising	Suggesting revisions or recommending changes be made	S1B: Since the writer is with, <i>there should be</i> rebuttal for paragraph 2.

Eliciting	Drawing out opinions or reactions about additional information of the content or eliciting explicit feedback from members	S1A: yes, that what I mean but maybe I am mistaken. <i>What u think ?</i>
Responding to eliciting	Reacting by giving opinion or evaluative comments on certain information in the text	S1C: Hi: <i>I think it is a little bit general</i> since the paragraph is about communication. <i>So get it focused.</i>
Questioning as hints	Questioning a peer's comment or revision as a hint to assist him or her in detecting an error	S2A: <i>why addresses</i> and facilitates? S3B: YES I tend to use the simple present dear as it is a general truth. S2A: but <i>why the s?? Since it's plural??</i> S3C: <i>can you check the subject please?</i> S3B: Yes dear I will accord it. Sorry for that mistake.
Providing options	Providing options or alternatives as an attempt to scaffold others and solve a problem	S2C: Will be <i>either present continues or simple present.</i>
Instructing	Giving mini lessons or instructions on a particular aspect of revision	S3C: What lacks here is a strong introductory sentence to the body first part 'claim. So first, <i>define the position then after that you provide evidence</i> either by examples or logic reasoning.
Defining	Defining a particular term or concept to scaffold others	S3A: Rebuttal: <i>a part in the body that forms an evidence to strengthen one's position and by which the writer refutes any counter claims. It comes at the end of the body in an essay</i> (clustering pattern).
Non-scaffolding		
Requesting clarifications	Asking a partner to clarify	S2C: <i>what do you mean about these two statements?!</i>
Clarifying	Giving clarifications	S3C: Hi <i>I mean that losing</i> connection like this is an evidence of the negative points of online learning communities.
Questioning	Asking questions seeking justifications from other participants	S2A: Sorry but <i>what does "For? Why did they use "FOR" here?!</i>
Justifying	Defending comments by giving reasons	S2B: yes, we do support her for her suggested alternative sentences in the introduction <i>as the ideas are more related and linked.</i>
Comprehension check	Checking peers' understanding of a particular point	S1B: look <i>got me now ?</i>
Confirming understanding	Responding to a peers' question by confirming understanding	S3C: <i>got you</i> but do you think that would be an argument for?

Certainty check	Checking a peers' certainty on a particular point	S2A: <i>Sure?</i>
Expressing certainty or uncertainty	Responding to a peers' question by confirming certainty or uncertainty	S1C: About the Q that suggested, <i>i am not sure</i> i got it but i will wait to see it. For the other one, <i>yes sure</i> as it is a new unconventional strategy.
Expressing knowledge or lack of knowledge	Expressing knowledge or lack of knowledge	S1B: <i>We know</i> the author is with online learning form the conclusion only. S1A: But through the two bodies u feel lost, <i>we don't know</i> which side he supports.
Responding to advice	Accepting, agreeing to, or questioning the validity of advice or rejecting it by disagreeing	S3C: <i>Great! and like</i> your previous suggestion of this sentence. S1C: If u mean this is thesis statement <i>I don't agree with it</i> at all.
Persisting	Continuing with an opinion in an attempt to convince others of that the information or opinion is correct	S2B: Hi <i>it's not wrong not</i> to mention that the structure is virtual, <i>as we all know</i> that it's, it's obvious for the reader: u can know that it's virtual by reading the word Social networks.
Elaborating	Clarifying a previous comment by giving examples	S1C: <i>look dear in the first one the learner hasn't exams and he is not obliged to achieve success in them, so we find that he focuses just on learning and improving his level, i think that's the real aim of learning, but the other who learn in the real classrooms he just focuses on getting marks to succeed in the exams, and just when he write his answers on the paper he will forget all what he learnt.</i>
Interpreting intended idea	Interpreting a partner's comment, response, or revision based on intended meaning	S1A: <i>As a reader</i> , when the writer mentioned that SN are WEB SITES in the second sentence, <i>it's clear that he meant a virtual network.</i>
Negotiating	Negotiating terms or even conditions of an agreement on a particular aspect of revision in order to solve a trouble	S3B: Hi dear. <i>we have already agreed that the topic sentence should be more general</i> , which means we need only to mention that we're dealing with the disadvantages of the SNs.
Speculating	Seeking or showing that one is engaging in thinking or reflecting on the task	S2B: Hi friends <i>I am thinking how</i> can some sentences be just examples to others. <i>I am also thinking</i> of the sequencing of those ideas and if any possible new idea could modify the whole layout.
Detecting a problem	Detecting and identifying a problem in the text	S1C: <i>There is a sort of jumping</i> from facebook to online learning communities and vice versa !!!!
Summarizing	Attempting to review or summarize important points in a paragraph or essay	S1A: <i>The introduction starts with</i> defining the social networks In general, it <i>gives a brief</i> what about social network and includes the main points of the topic.

Comparing	Pointing out similarities or differences between comments and revisions	S3C: Hi: I see that this topic is <i>different from two others</i> suggested topics by you both as the two others are more specific and here, in this topic, <i>is more general</i> as it talks about networks in human life <i>unlike</i> the others as they talk about social networks in communication .
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Note. The parts of the sample comments in italics underlie the patterns of the interactional comments in terms of their language functions and focus areas in online peer review.

Procedural and Social Comments

Type	Definition	Sample
Giving directives	Ordering peers to take an action	S1C: <i>Go on</i> we are at the beginning.
Pointing	Pointing to a specific part of the text when responding	S2C: <i>This is the sentence here</i> : Many groups have been formed for the sake of knowledge, and they reflect clearly the community of learning.
Notification	Notifying others of handling a task	S1A: <i>My suggested topic sentence for paragraph 1</i> :
Expressing surprise, frustration, or confusion	Showing or expressing surprise, frustration, or confusion	S2C: <i>Oh! That's true!!</i>
Organizing the task	Organizing or controlling behavior in a discussion	S2A: Hey u know?? Since i am already here... <i>I'll try to come up with some more supporting details</i> and then as they are all here, <i>we can go back to the paragraph and discuss it</i> . Sounds good?
Encountering challenges	Commenting or complaining about facing a certain procedural or technical challenge	S3B: Sure, <i>I find it so difficult to comment</i> here because of the tiny writing. S1B: friends, sorry if my post is late as <i>the net it is too bad</i> and the electricity is the worst
Praising	Praising or expressing admiration for a particular revision or comment	S1A: <i>bravo</i> because if you we can advance quickly.
Social presence	Notifying another of social presence or checking others' presence	S3C: well <i>fine and ready</i> . <i>What about others?</i> S2B: Hello friends, <i>I'm here and ready</i> . S1C: <i>I am here too</i> and its good to prepare a cup of coffee.
Expressing feelings	Exchanging comments that express feelings towards others (e.g., missing someone, hoping, well-wishing, etc)	S3C: we <i>missed</i> you here. S3B: <i>bless</i> u
Exchanging greetings	Exchanging greetings or checking and confirming wellbeing	S1A: <i>hello</i> friends: S1B: <i>good evening</i> my great teacher. Have a wonderful time. S3C: <i>have a blessed Friday</i> sister Maria thank you.

Note. The parts of the sample comments in italics underlie the patterns of the interactional comments in terms of their language functions and focus areas in online peer review.

Appendix C. Coding Scheme of the Global and Local Interaction Comments Based on their Nature and Focus Area

	Revision-Oriented	Non-Revision-Oriented
Global		
Content	S1B: Hi: <i>I think it is a little bit general</i> since the paragraph is about communication. So get it focused.	S2A: About the content of the introduction, I think it reflects the topic discussed here and gives a simple idea about it
Unity and organization	S1C: They <i>just need to be reorganized....</i> similar ideas next to each other.	S2B: Just a remark: <i>I can't follow the ideas well</i> because the main idea is not very clear (the relation between FB and learning community)
Audience	S1A: <i>if the reader stops reading</i> he or she <i>can't get it</i> .	S1B: <i>The introduction is very clear to the readers</i>
Argumentative genre	S1B: But through the two bodies u feel lost, <i>we don't know which side he supports</i> .	S2C: I think the first one is the topic for <i>it states the writer's position</i> and it's the most important.
Local		
Language grammar	S3B: Of course I've read that before, and have only <i>a slight remark here delete the prep[Of] here</i> .	S3C: of course no <i>mistakes of vocab and grammar</i> .
Language meaning	S3A: here I think it's <i>better to use the word "obstacles"</i> .	S2B: Wow, <i>I like this word</i> nice suggestion
Mechanics	S2C: Aha only something sweetie in <i>punctuation (No need for the comma before since</i> .	S1C: Let's take <i>the example of mechanics</i>

Appendix D. Sample Learners' Global & Local Text Revisions Linked to their Interaction Comments

Sample Learners' Interaction Comments

S1B: O.k. now, but shall I revise the ideas and details in the counterargument paragraph according to my topic sentence or according to the real topic sentence?

S3C: Idea 1: in fact includes 3 separate ideas which could be supported by examples./ Idea2: I see it not an argument against / Idea 3: could be better introduced by a sentence / As for other information we can talk abt **people lose privacy ; lack of trust is another concern**.

S2C: I think the ideas and supporting details give information relevant to the topic sentence and the topic of the essay.

S2A: they are all relevant to the topic sentence of the essay which is the effects of **SNs on communication and socialization**. 2. not so sufficient.. Mean we can come up with more or explain more especially about how SNs **affect the one family's members in real life**.

S1C: it seems they are two ideas, and all of them need more supporting details. I suggest **hiding from the failure and the loneliness of their real lives. They build imaginary world**.

S2A: Actually **sometimes, me and my brother use Facebook, what's up or any other application to discuss**

sth while we are in the same house! Making a voice/ video call through Skype! Sometimes for fun, other times due to laziness.

S3A: I agree with you great example as we also so this here with my little sister haha. They become somehow addicted to this kind of communication.

S3B: Sorry can I suggest more ideas?

S3C: Yes, I've been developing my second idea.

S2A: I think we can add examples ... ummmm what about "spending much time using social sites less attention to their face-to-face social relations?"

S1A: Bravo we can talk about how the youngsters could have easy ways to corruption.

S3B: Of course we've to deal with: 1- juvenile delinquency as influence the social lives of people in a negative way and the building up of an introvert personality which may represent an important threat too. and this is my second supporting idea.

S3A: we can talk about advertising via SNs also the change in dialects with the cyber language especially for the youths.

S2B: we may add about how overusing the SNs change badly the whole communication system and visits between family and friends with a Facebook message.

S2A: wow, great I like ur suggested ideas and details.

S3C: Thanks liked yours too. Hi well I think I need to clarify that better how hacking someone's account makes socializing hard to be achieved in a good way because it is an 'abuse' against users and make them more cautious of online communication.

S2C: Ok. We need to mention an example creating fake accounts, posting abusive materials as immoral videos or illegal pictures.

Sample Learners' Content Text Revisions Linked to Above Interaction Comments

S2A: Many users think of social networks such as Facebook as a way to destroy the intimate relationships among the one family and friends. Recently, it has become a global phenomenon to see a family gathering only for dinner or lunch while spending much of their time contacting their online friends and communicating with them. Thus, they are destroying the family atmosphere for the sake of the cyber socializing they entertain themselves with, and thus creating a gap among the members of the family. For instance, my brother and I often use Facebook, or any other application to discuss certain matters while we are in the same house: making a voice, video calling through Skype ...and sometimes we do that just for fun or out of laziness.

S3B: Others will say that these sites influence the social lives of people in a negative way by making them unsocial in the real life as some used to spend hours in front of the computers screen and so excluding themselves from the real world. Of course this may lead to build up an introvert personality, but I can say that through organizing time and learning self-control skills, this problem can be avoided as it has been proven that social net works enhance the communication skills if it is used wisely.

S1C: One of the most important effects of these social networks is the fact that the more time they spend using social sites, the less they pay attention to their face-to-face social relations. Actually, their daily users become after a while lost between their real life and their life on the Internet, as they become somehow addicted to this kind of communication while on the other hand, they also need to pursue the real contact with their society and surroundings.

S2B: The overuse of the SNs changed (badly) the whole communication system (.). We replaced visits between family and friends with a Facebook message or (a tweet). (Also) specialists notice the change in

dialects with the cyber language especially for the youths, which cause an intellectual and linguistic gap between them and their elders.

S1B: Some people who become addicted to this kind of communication, they actually hide from the failure and the loneliness of their real lives. They build imaginary world in the social networks. The more imaginary world in the social network the more destroyed in the real world.

S1A: Due to Social networking, users lose their social life. They become addicts and they spend their whole time on the screen. SNS can influence negatively their personalities and even to an extent that they become antipathetic with time.

S2C: people who use SNS, especially the most important ones, the youngsters, could have easy ways to corruption. They create fake accounts, post abusive materials as immoral videos or illegal pictures.

S3C: Being on a social network one volunteers his/her personal information online, which means people lose privacy when they choose to be online SNs participants. For instance, hacking someone's account is actually an emerging problem that should be accurately focused on.

S3A: Trust is also another concern of most SNs users due to the different social context. Trust can't be communicated when people use fake accounts or post untrue things. Some others are exaggerating or boasting to be perfect for others. In this case we could hardly socialize through SNs, simply because of the erroneous sense of certainty.

Sample Local Text Revisions Based on Learners' Interaction Comments

Sample Segment of Pre-Revised Draft

But, proclaiming that the major aim of college education is to prepare and qualify students for the world of work; proclaiming that would evidently bring about a great deal of debate. Supporters of that idea are, alas, less convincing -- if not kidding themselves by providing pieces of evidence to defend the vocational purpose of higher education. University or college learning can't logically be confined to that limited conception. Conceptualizing post-secondary education in relation to life-long successful achievements should rather have multi-dimensional perspectives.

Learners' Sample Interaction Comments

S2B: It's right that the introduction gives the readers information and background about the topic, but I think I was lost on reading it.

S1C: Great dear so can u please be so precise about what sentences that seem confusing?

S2B: the last part of the paragraph is not coherent. I mean this part "Supporters of that idea are, alas, less convincing..... perspectives".

S1A: the introduction is not really clear.

S3C: what is the ambiguity there?

S2A: I agree with you, I think it was little confusing maybe cause of many conceptions.

S1B: Exactly, both of you because the alternation of ideas made me lost while reading it.

S2A: We have lots of things in common, dear

S2B: Yes dear we have.

S3C: would you please state these conceptions?

S2B: I mean repetition too as I can see in the introduction

S3B: ok , I think that the last sentence needs to be modified.

S2A: Hi it's not that they were unclear but ummm, as if one has to focus well or will lose the idea. For

example, conceptions: conceptualizing.

Sample Segments of Revised Drafts

S3A: But the question of what the major aim of education is, brought up a great deal of debate as some belief that the aim is to prepare and qualify students for the world of work, while others reject this limited point of view claiming that university or college learning can't logically be confined to that limited purpose. Accordingly, they proclaim that the purpose of post- secondary education in relation to life-long successful achievements should rather have multidimensional perspectives.

S2A: As many claim that the major aim of college education is to prepare and qualify students for the world of work. However, there is another point of view that suggests widening this idea and not soecify it to this limited conception. Conceptualizing post- secondary education in relation to life-long successful achievements should rather have multi-dimensional perspectives.

S1B: Education is one of the most important elements of success so many people think that the major aims of collage and universities is to prepare and qualify students for the world work- successful workers while the major aims should be qualify successful people.

Note. The parts highlighted in yellow and in red font indicate those interactional comments textually linked to text revisions.

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