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Scaffolding during Peer Response Sessions

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Abstract

This study aims to examine the types of scaffolds employed by students during peer response sessions and investigate how scaffolding facilitates learning. This qualitative case study involved six Form Four mixed-proficiency level students from a secondary school in Malaysia. Data were collected through multiple sources. The study revealed that a variety of scaffolds were provided by the students during the peer response sessions. The findings indicate that peer response session serves as a platform for collaboration and mutual learning among students.

Keywords: Scaffolding; peer response; peer interaction; collaboration; mutual learning

1. Introduction

Second language learners often struggle in their writing as they lack the needed support to help them to write. This support or help is crucial to assist students to improve their writing. The use of scaffolds is closely linked to Vygotsky's (1978) concept of "zone of proximal development". Cazden (1988) defined scaffold as "support that is both adjustable and temporary" (p. 107) given to the learner to assist him or her to execute a given task. Similar to Cazden's (1988) definition, the term 'scaffold' in this study is referred to as temporary assistance from more skilled peers so that eventually, the learners would be able to function on their own.

Numerous studies have identified peer scaffolds which included collaborating (Stanley, 1992; Storch, 2005); clarifying information (Stanley, 1992; McGroarty & Zhu, 1997); using repetition (Daiute & Dalton, 1993; DiCamilla & Anton, 1997; Sim, 1998); seeking information (McGroarty & Zhu, 1997); providing information (McGroarty & Zhu, 1997); using The Modified-Interaction Strategies (such as checking for comprehension and

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clarification, giving assistance and repairing) and using The Social-Interaction Strategies (such as elaborating, facilitating flow of conversation, responding [e.g., agree or disagree], and paraphrasing) in Bejarano et al.'s (1997) study; providing elaboration (Sim, 1998; Zhu, 2001); providing suggestion (Komathy, 2000; McGroarty & Zhu, 1997; Mendonca & Johnson, 1994); using interlanguage knowledge (De Guerrero & Villamil's, 1994; 2000; Villamil & De Guerrero, 1996; providing restatement, grammar correction, explanation (Komathy, 2000; Mendonca & Johnson, 1994; using questions (Komathy, 2000; Mendonca & Johnson, 1994; Sim, 1998; Zhu, 1997; providing specific response types such as announcing, pointing, advising (Cho et al., 2006; Stanley, 1992; Zhu, 1997; eliciting, confirming, and justifying (Zhu, 1997; providing compliments or praises (Cho et al., 2006; Hyland & Hyland, 2001) and having peers as support (Cotterall & Cohen, 2003; Hyland, 2000). However, studies have not delved adequately into the types and functions of peer scaffolds during student-student interaction in assisting students' revision of their compositions, which is the focus of this study.

The use of small peer response group in this study conforms to a social constructivist view of learning which is based on Vygotsky's (1978) theory of learning, which maintained that with guidance from adult or more adept peers, a learner would be able to function beyond his or her current developmental level. Peer response group provides a social context for peers to offer each other support and feedback (Berkenkotter, 1984), to sharpen the writers' sense of audience (Gere & Abbott, 1985; Smagorinsky, 1991), and to enhance their cognitive skills (Villamil & De Guerrero, 1996). In other words, 'scaffolding' is much needed through interaction with an adult and even more competent peers to help student writers explore and discover meanings.

Therefore, in order to know and understand how much students can gain through peer interactions in the writing process, this study seeks to address the following questions: What are the types of scaffolds given by peers during the peer response sessions? and How do the peer scaffolds facilitate learning? In understanding and knowing how peer interaction works during the peer response sessions will help teachers engage students in a more meaningful dialogue to share and discover meanings in order to improve their revisions.

2. Material and Method

2.1. The Participants

This case study involved a group of six Form Four students, comprising three high-proficiency level students (Ann, Ben and Cindy – not their real names) and three intermediate-proficiency level students (Doris, Ema and Faye – not their real names) in an ESL writing class in an urban secondary school in the state of Sarawak, in Malaysia. Their English-proficiency level was determined based on their Penilaian Menengah Rendah (PMR) English paper results. Ann, Ben and Cindy obtained Grade A; while Doris, Ema and Faye obtained Grade C for their PMR English paper.

2.2. The Procedure

Four peer response sessions were observed over a period of five months. The students responded to the individual first drafts of four compositions which were of different topics related to social issues. Interviews were conducted with the students individually after the completion of the individual final drafts of each of the students' compositions. The interactions during the peer response sessions were audio-taped, transcribed in verbatim and analysed for the types of scaffolds provided by the students and examined on how the scaffolds facilitated learning. The data collected through the various sources (transcripts of peer interactions, students' first and final drafts, interview transcripts with the students and field notes) were analysed, triangulated and reported in a descriptive manner.

3. Results

3.1. The types of peer scaffolds during the peer response sessions

Findings in this study revealed that the most popularly utilized type of scaffold by the students during the peer response sessions to the individual first drafts of all the students' compositions was providing correction of errors, followed by using questions, repeating words or phrases or suggestions, providing explanation, providing confirmation and identifying errors. The categories of peer scaffolds were data-driven.

3.2. How do the peer scaffolds facilitate learning?

Providing correction of errors. Generally, the findings in this study revealed that providing correction of errors was the most frequently employed type of scaffold by the students (especially, the high-proficiency level students) throughout the peer response sessions of all the students' compositions. This type of scaffold served to alert students of their errors and to help them rectify those errors. The intermediate-proficiency level students were also capable of correcting some of the errors made by the group members on the individual first drafts of their compositions. Both the high and intermediate-proficiency level students were found to be very thorough in providing feedback to assist their group members in their revisions. They scrutinized each and every error made by their peers and helped one another to correct errors at the sentence level (that is, errors in grammar, spelling, punctuation and word order).

For instance, excerpt 1 (lines 761 to 764) below demonstrates three types of scaffolds (identifying grammatical error, providing explanation and providing correction of grammar) provided by the high-proficiency level students (Ben and Ann) to help an intermediate-proficiency level student (Ema) to correct the first sentence of paragraph 5 in the first draft of her Composition 2 ('Air pollution are caused by smokes from vehicles, open burning, smoke from factory or even smoking'.):

Excerpt 1: 'are'

761.	Ben:	Next paragraph, 'Air pollution are'.	Identifying grammatical error
762.	Ann:	'Air pollution' cannot be 'are'.	Providing explanation
763.	Ben:	'Air pollution is', like? A lot, is it? It 'is', right?	Providing explanation, and providing correction of grammar
764.	Ann:	'caused by smoke', no 's'.	Providing correction of grammar

A check on the final draft found that with those three types of scaffolds (as mentioned in excerpt 1) provided by the high-proficiency level students, Ema (an intermediate-proficiency level student) was able to correct those errors. Hence, the revised version read 'Air pollution is caused by toxic substances emitted from vehicles, open burning, smoke from factory or even smoking'. Those scaffolds provided by Ann and Ben had helped Ema to understand the rule on the usage of the uncountable verb 'is' as she explained during an interview, "… because 'air' cannot be counted …, 'Air pollution is caused by toxic substance …'. And …, the word 'smokes', they [peers] asked me to cancel the 's' because 'smoke' cannot be counted …" . (italics added).

The less proficient students were found to have learnt from the scaffolds provided by the high-proficiency level students. The scaffolds (in the form of identifying grammatical error and providing explanation) had made Ema (an intermediate-proficiency level student) to be more aware and to be careful of not making such errors in her subsequent compositions. There was also sign of the breaking down of the scaffolds as the intermediate-

proficiency level students could apply those scaffolds learnt from the more capable writers to help their peers to revise the first drafts of their compositions. For instance, excerpt 2 (line 952) below illustrates Ema's (an intermediate-proficiency level student's) application of the scaffolds of identifying grammatical error and using probing question which she had learnt earlier from the high-proficiency level students:

Excerpt 2: 'electrostratic precipitator'

944.	Ann:	Last sentence, 'It must be compulsory for factories to install electrostatic precipitator in their smokestack while all vehicles must be equipped//	Providing correction of grammar
945.	Ben:	//with exhaust'? Why?//	
946.	Ann:	//must be equipped//	
947.	Ben:	Why? Then, in this case right, 'all vehicles exhaust must be equipped', right? Because we equip the catalytic converter on the exhaust.	
950.	Ema:	Ben!	
951.	Ben:	Yes.	
952.	Ema:	For the 'electrostatic precipitator' right, plural or singular?	Identifying grammatical error, and using probing question
953.	Ben:	[Plural].	
954.	Ann:	[Plural].	
955.	Ema:	Plural, so put 's' right?	
956.	Ben:	Yes. Then, 'smokestacks' also plural.	
957.	Ann:	Put 's'.	

As portrayed in excerpt 2 (line 944), Ann (a high-proficiency level student) helped to change the active form of the word 'must equip' to the passive form 'must be equipped' in the last sentence of paragraph 5 in the first draft of Ben's Composition 2 ('It must be compulsory for factories to install electrostatic precipitator on their smokestack while all vehicles must equip their exhaust with catalytic converters'). Ben (line 947) was found to have reached an understanding of his error as he self-verbalized the correction and reason for the change to the passive form. Ben's understanding of the need to change the word to the passive form was confirmed during an interview when he mentioned, "…, I found out from them that my sentence structure was wrong, 'vehicles cannot equip themselves' but 'they have to be equipped by their owners'. So, I changed the sentence". (italics added).

Ema (line 952) utilized probing question to identify the wrong usage of the singular form of the word 'electrostatic precipitator'. Ema's ability to detect simple grammatical errors was revealed in an interview in which she expounded "I can notice errors, like grammar, spelling errors, ...". As such, the scaffold provided by Ema (line 952) had made Ben to realise and rectify his error (line 953). This had further awakened Ben to realise and rectify another grammatical error 'smokestack' (see line 956). (italics added).

Hence, an analysis of the final draft unveiled that although Ben had forgotten to change the singular form of the word 'smokestack' to the plural form, he had employed his peers' feedback to correct the other errors to become 'electrostatic precipitators' and 'must be equipped'. As such, the revised version read 'It must be made compulsory for factories to install electrostatic precipitators on their smokestack while all vehicles must be equipped with catalytic converters'. It was also observed that Ben had even refined the sentence to include the

word 'made' before the word 'compulsory'. This indicates that Ben had reflected upon his peers' feedback and had acted upon them. (italics added).

The example in excerpt 2 shows that there was mutual peer scaffolding among the high and intermediate-proficiency level students to assist one another in the revision of the individual first drafts of their compositions. More importantly is that after learning from the more capable peers, the less capable ones broke away from the scaffolds by applying the knowledge and grammatical rules learnt to correct the errors of their peers.

Using questions. On the whole, using questions ranked the second most frequently utilized type of scaffolds by the students to assist their peers throughout the peer response sessions to the individual first drafts of all the four compositions. The more competent writers were capable of posing questions to make the less competent writers think and to rectify their own errors.

For instance, excerpt 3 exhibits the skilful utilization of probing questions by the high-proficiency level students (Cindy and Ben) in assisting an intermediate-proficiency level student (Ema) in the revision of the first draft of her Composition 1:

Excerpt 3: 'only one fruit?'

520.	Cindy:	'Malaysia can organise fruit festival to promote local fruit', only one fruit?	Using probing question
521.	Ema:	'fruits'?	
522.	Cindy:	Ya, 'fruits'.	
523.	Ben:	'the King of fruit', only one type of fruit? The King of only one type of fruit?	Using probing question
524.	Cindy:	'the King of'//	
525.	Ben:	//actually, it is the King of every fruit. So, it is only one fruit, is it?//	Using probing question
526.	Ema:	Not exactly. 'Durian'.	
527.	Ben:	But, it's the King of one fruit only, or the King of every fruit?	Using probing question
528.	Ema:	It's the King of every fruit.	
529.	Ben:	So?	Using probing question
530.	Ema:	Put 's'.	

In excerpt 3, the use of probing questions by Cindy (see line 520) and Ben (see lines 523, 525, 527 and 529) had enabled Ema (see line 521) to rectify her own error by adding the plural form to the word 'fruit' after the word 'local' and also after the word 'of' in the first sentence of paragraph 4 in the first draft of Ema's Composition 1 ('Subsequently, when the fruit season, Malaysia also can organise fruit festival to promote local fruit especially durian, the King of fruit'.) (italics added).

An analysis of the final draft confirmed that this scaffold provided by the high-proficiency level students (Cindy and Ben) had helped the intermediate-proficiency level student (Ema) to correct that grammatical error concerned. Therefore, she reviewed the sentence to become 'Subsequently, during the fruit season, Malaysia can also organise fruit festival to promote local fruits especially durian, the King of fruits'. (italics added).

Identifying lack of content. Findings in this study revealed that there was mutual learning as both the high and intermediate-proficiency level students learnt from one another. This type of scaffold served to alert students of the lack of content in their composition. This is portrayed in excerpt 4 (line 584) which illustrates the scaffold provided earlier by the high-proficiency level student had collapsed as Ema and Faye (intermediate-proficiency level students) could detect and comment on the lack of relevant content to support the topic in the first draft of Ben's (a high-proficiency level student's) Composition 1:

Excerpt 4: 'This is not how to attract the tourists to Malaysia'

581.	Ema:	Ben's essay.	
582.	Faye:	Only can say one thing. It is too long.	
583.	Ema:	Too long.	
584.	Ema:	This is not how to attract the tourists to Malaysia. This is attraction of Malaysia	Identifying the lack of relevancy of content

This shows that the intermediate-proficiency level students had understood and internalized the scaffolds given by the high-proficiency level students. Thus, they were able to apply this knowledge learnt when responding to the first draft of their peers' composition. The high-proficiency level students were very positive about receiving feedback from their peers. For example, Ben (a high-proficiency level student) expressed, "… I don't feel offended but I feel happy that they are able to spot my mistakes and help me improve my writing". Ben acknowledged the usefulness of his peers' scaffold as he reported that in his first draft, "… I wrote mainly on the attractions in Malaysia". However, he elucidated that in his final draft, "… it was a balance piece between the attractions in Malaysia and ways to attract tourists to Malaysia". In other words, the scaffolds (in excerpt 4) provided by the intermediate-proficiency level students helped Ben to relook at his first draft and to ensure that he included more ways on how to attract tourists to Malaysia in order to answer the topic of the composition concerned.

This signifies that writing is a learning process and that peer interactions permit both the high and intermediate-proficiency level students the chance to understand and provide the necessary scaffolds to help each other correct their errors. In other words, peer scaffolding plays a pertinent role in helping to improve students' writing skills.

4. Discussion and conclusion

The findings in this study unveiled that a wide range of scaffolds were provided by the students during the peer response sessions to the individual first drafts of all the students' compositions. The types of peer scaffolds yielded from this study which were found to be similar to findings of other studies included providing suggestion (Komathy, 2000; McGroarty & Zhu, 1997; Mendonca & Johnson, 1994); providing restatement, grammar correction and explanation (Komathy, 2000; Mendonca & Johnson, 1994); using questions (Komathy, 2000; Mendonca & Johnson, 1994, Sim, 1998; Zhu, 2001); providing elaboration (Sim, 1998; Zhu, 2000; providing specific response types such as announcing, pointing, advising (Cho et al., 2006, Stanley, 1992; Zhu, 2001; collaborating (Stanley, 1992; Storch, 2005); using repetition (Daiute & Dalton, 1993; DiCamilla & Anton, 1997; Sim, 1998); eliciting, confirming, and justifying (Zhu, 2001); seeking information (McGroarty & Zhu, 1997; clarifying information (Stanley, 1992; McGroarty & Zhu, 1997; providing information (McGroarty & Zhu, 1997; using The Modified-Interaction Strategies (such as checking for comprehension and clarification, giving

assistance and repairing) and using The Social-Interaction Strategies (such as elaborating, facilitating flow of conversation, responding [e.g., agree or disagree], and paraphrasing) in Bejarano et al.'s (1997) study; and using interlanguage knowledge (De Guerrero & Villamil's, 1994; 2000; Villamil & De Guerrero, 1996).

There was collaboration and mutual peer scaffolding among the high and intermediate-proficiency level students which led to learning (intersubjectivity). The assistance and guidance from the more capable ones had helped the less competent learners to understand and internalize some of the grammatical rules; and ultimately, the latter could perform on their own. Mutual scaffolding between both the reader and writer was also found to exist in De Guerrero & Villamil's (2000) study as the students became active partners in the negotiation of meanings as they worked within the ZPD.

Providing correction of errors was found to be the most effective and widely utilized type of scaffold by both the high and intermediate-proficiency level students to assist one another in their revisions. This is perhaps because all the subjects in this study were ESL learners and they lacked appropriate vocabularies and were not very proficient in applying certain grammatical rules (especially, the intermediate-proficiency level students). Thus, by helping one another through providing the correct words or grammar was effective in assisting them to revise the first drafts of their compositions. This help provided by the peers in correcting errors was well-received as a learning process for all the students in that over a period of time, they were able to apply the grammatical rules and concepts learnt earlier to improve their writing in the subsequent compositions. In other words, learning had taken place as with the guidance from the high-proficiency level students, the intermediate-proficiency level students were able to understand, internalize and function beyond their 'zone of proximal development'. This is in congruent with Vygotsky's (1978) theory of learning in that for learning to take place, it must first happen in the inter-psychological plane and then, in the intra-psychological plane.

The use of questions by the students (especially, by the high-proficiency level students) in this study served as an effective scaffold in guiding and encouraging the less proficient writers to exercise their mental reasoning skills in order to perform at a higher level; and thereby, to rectify their own errors. This was found to yield positive results as there was evidence of the breaking away of the scaffolds provided as the less proficient writers were found to be able to understand, internalize and apply the knowledge that they had learnt on grammatical rules and new concepts in their subsequent compositions as the process writing approach progressed along. The use of questions as an effective form of scaffold to assist learners is espoused by Zinn (1998) as she maintained that "questions are more apt to inspire student to think about what they know and are learning about writing" (p. 29).

The finding in this study is significant as the peer scaffolds provided during the student-student interactions helped to bridge the students' current developmental progress to a higher cognitive level of thinking which improves their revisions and enhances their writing skills. Several important implications for L2 writing instruction are derived from the findings of this study. The first implication is that peer scaffolding has great potential to benefit students through enriching their experience in the teaching and learning of writing. Teachers need to make ESL students aware that direct correction of errors can be a form of scaffold to assist them to have a better understanding of their errors; and in due course the students will be able to correct those errors concerned on their own. This is in concordance with Vygotsky's (1978) theory that with the guidance from more capable peers, learners will be able to perform beyond their ZPD. The second implication is that peer response session should be incorporated into the English Language Curriculum to help strengthen students' writing skills. Since writing is a complex process and peer response session is time consuming, systematic and careful planning needs to be considered by teachers at the beginning of each semester to ensure that enough time is allocated for group work and peer response sessions. The third implication is the need to expose existing teachers and pre-service

teachers on how to provide appropriate scaffolds during peer response session to facilitate students' learning. This is because a child's level of development is related to the teacher instruction (Cazden, 1994; Wertsch, 1985). In this respect, there is a need for teachers to train students by providing them with guidelines on how and what to respond to each others' work as well as teach them the interpersonal skills and small group skills to promote sharing and respectful attitude towards the writer's ownership of his or her writing.

Although this study found evidence that peer scaffolding through response sessions may add value to student learning, rigorous research is greatly needed. Future work in the domain of peer scaffolding needs to fully address issues related to the extent of teachers' influence in their teaching of writing on the students' responding strategies over a period of time and student satisfaction. These types of studies are likely to add value to the teaching and learning of L2 writing in order to benefit both teachers and ESL students.

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