EXPLORING THE NATURE OF UNDERGRADUATES' PEER COLLABORATION IN A PBL WRITING PROCESS

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Abstract

Despite the importance of writing skills to academic success, many undergraduates face a lot of challenges with writing in English. Studies have shown that engaging and supporting students in a writing process help to improve the students' writing performance. Therefore, this study used a Problem-based learning approach (PBL) in order to give students opportunities to be engaged and support one another in a writing process through face-to-face interactions. The paper specifically reports what the students do to support their peer in the PBL writing process. An intact class of 18 second-year students in an English Composition course in Nigeria was selected to participate in the study. Data were obtained through audio- and video-recording of the students' face-to-face interactions. The findings showed that the participants supported theirs peer through various ways in the PBL process such as modelling their facilitators, sharing tasks and responsibilities, clarifying instructions and unclear terms, using dictionary, suggesting other sources to get more information, checking for consensus, creating humour, encouraging others to participate and raise their voices while speaking, restating time given to a session and giving overview of a previous session. The support provided by the peers helped the students to improve their writing. The study has some implications for writing teachers.

Keywords: ESL writing, face-to-face, PBL, peer collaboration, undergraduates

INTRODUCTION

Group learning has been widely used in second language classrooms (Storch, 2005). It is supported by the Social Constructivism which is explained by Vygotsky's theory of cognitive development. Vygotsky suggests that learners develop a more systematic, logical, and rational concept from their dialogue with peers and with a skilled helper who can be a teacher or a peer who is more skilled in the subject (Vygotsky, 1978). The goal of assisting learners is to enable them to get into a zone of proximal development for learning (ZPD) which is the range of tasks which are too difficult for a learner to master alone but that can be learned with guidance and assistance of a teacher or more able peer. According to him, there are two levels of learning; the actual development level which is already reached by a learner, and potential development (zone of proximal development) level is the one yet to be reached by a learner. At the level actual development level, a learner is capable of solving a problem independently; while at the potential development level a learner is capable of reaching with the help of a teacher or more able peer.

Closely linked to Vygotsky's concept of ZPD is scaffolding. Numerous studies have attempted to define the term "scaffolding". For example, Scaffolding means the support given to a learner in attaining the ZPD level (Van de Walle, Karp & Williams, 2007). They see it as an interactional mechanism for learning and development. Duffy sees it as an instructional tool that reduces learning ambiguity and increases growth opportunity. Most researchers agree that scaffolding plays an important role in fostering learning (Duffy, 2002). For a scaffold to successfully support learners to shift from one level cognitive level to another, Bransford, Brown, and Cocking, (2000) highlight some of the features of the scaffold, that it should;

- Motivate or enlist the learner's interest related to the task
- Simplify the task to make it more manageable and achievable for a learner
- Provide some direction in order to help the learner focus on achieving the goal
- Clearly, indicate differences between the learner's work and the standard or desired solution
- Reduce frustration and risk
- Model and clearly define the expectations of the activity to be performed

The nature and types of scaffolding in students' interactions in collaborative learning have been investigated by various studies. Findings of the studies show that collaboration among students in the learning process helps students to develop their learning skills/output (Lin & Samuel, 2013). They in their study revealed that students, who received the scaffold in solving ill-structured problems during an online discussion, produced better quality argumentation. The students also produce more claims and more problem- solving oriented communication than those who did not receive the scaffold. For instance, scaffolding enhances their critical thinking skills (Saye & Brush, 2002), problem-solving skills (Wolf, 2000), speaking ability and self-confidence (Shehadeh, 2011) and creates enabling and friendly learning conditions where peers provide mutual help (Nguyen, 2013).

In second language learning generally, researches also show that peer scaffolding is an effective way to foster L2 learners' development. In L2 writing specifically, many studies have shown the positive effect of peer scaffolding not only on the writing but on other language skills. In her series of studies on peer scaffolding in collaborative ESL writing, Storch (2005) discovered that students' L2 writing greatly improved due to peer scaffolding. For instance, in 2002 she found the transfer of knowledge as the members of the dyads co-constructed knowledge about language. In 2005, she reported that peer-scaffolded learners produced shorter but better texts in terms of task completion, grammatical accuracy, and complexity in comparison with individual student writers. In a related study, Shehadeh (2011) found the content, organization, and vocabulary of students' L2 writing significantly improved after undergoing collaborative writing. In a later study, Lin and Samuel (2013) observed that students scaffold one another in writing compositions by providing correction of errors, in grammar, spelling followed by using questions, repeating words or phrases or suggestions, providing an explanation, providing confirmation and identifying errors.

Although these studies are on peer collaborative learning in the L2 writing classroom, the studies do not explicitly describe what the students do to support one another in the writing process. Therefore, this study uses a problem-based learning approach (PBL), which is one of the teaching approaches that integrate the Social Constructivist theory in a writing classroom in order to explore the nature of peer collaboration in the writing process. Unlike the other studies on collaborative writing which involve only students in the writing process, PBL clearly explains the roles of teachers and the writing topics (prompts) in the writing process.

In the PBL environment, learners are given real-life problems known as ill-structured problems to work with peers under the guidance of a tutor to solve the problems. When a student has difficulty with any aspect of the problem, other students assist him/her. If none of the students has the idea, the tutor or facilitator is there to help them. The tutors help the students through open-ended question rather spoon-feeding the students (Barrows, 2000). Through this, the students can work towards their zone of proximal development.

Scaffolding as one of the major components in facilitating meaningful

learning in PBL is given by the facilitator(s) and peers. It is designed to encourage learners to think and work independently in proposing viable solutions to the problem. It shapes the way students interact and discuss the ill-structured problem in every step. For example, at the beginning of PBL, scaffolding may help them activate prior knowledge and identify key elements from the ill-structured problem (Wolf, 2000). Scaffolding also helps the students to analyze the ill-structured problem and set learning objectives. In addition, when the students are engaged in self-directed learning, scaffolding may assist them to conduct more goal-oriented information searching and improve the effectiveness of their exploratory learning. The same applies when students are generating solutions to the problems, scaffolding may facilitate their evaluation of possible and viable solutions to the ill-structured problem.

Therefore, integrating the PBL approach into the writing classroom may provide opportunities for students to be actively engaged in the writing process. In addition, the collaboration and peer support in the PBL environment might enable the students to think and rethink of their ideas before writing. They also write and rewrite their ideas in order to convey their message effectively and accurately to their reader. Students could learn to convince their peers during the discussion. They also learn to support peers to use appropriate language to communicate ideas more accurately in their writing. Students would possibly learn to think more consciously about their writing goals and learn to view their writing from the perspective of the audience. Thus, students are more likely to be engaged in their writing with interest in the PBL process, because the ill-structured problems given are related to their real-life situations and they are supported by tutors and peers, than in traditional classrooms.

Purpose of the Study

The purpose of the study is to examine how undergraduates support one another in the PBL writing process.

Research Question

How do peers support one another in the PBL writing classroom?

METHOD
Participants

Eighteen second year undergraduates taking a compulsory Advanced Composition course were selected to participate in the study. They were grouped into smaller groups of six participants each. The participants are mixed gender aged between 24 and 38 years old.

Instruments

Audio-and-video recordings and observations were used as instruments for the data collection of the study. The participants' interactions during the PBL process were recorded. The researcher also observed the participants in the process as a participant-observer.

Procedures

This study is part of a larger study that investigated the effects of a PBL approach on metacognition and writing performance of Nigerian undergraduates. To participate in the PBL process, the participants were grouped into three. Each group was given two ill-structured problems to propose viable solutions in six weeks (three weeks for each problem) solutions following Savery and Duffy (1995) model. Both ill-structured problems are related to the participants' real-life situations. The first ill-structured problem is related to Boko Haram insurgency in Northern Nigeria which caused some students to transfer their studies to other areas while some students abandon school completely. The second problem is on parents' concern on the poor academic performances and poor study attitudes of Nigerian undergraduates' mainly due to excessive engagement with the social media.

In the Savery and Duffy model of PBL, students are expected to

- Generate working ideas or possible solutions;
- Identify available information related to the problem;
- Identify learning issues (things they need to find more information about);
- Identify resources to look up or consult;
- Assign tasks to the various group members (i.e. share the learning issues);
- Gather information (conduct self-directed learning);
- Propose solution(s).

In the first meeting, the participants in each group assigned responsibilities to one another such group leader, time-keeper and scribe. They read out the ill-structured problem, brainstormed and generated possible solutions to the problem. They also identified learning issues, namely, things they need to find out more information about. Thereafter, they divided the learning issues among them and identified resources to look up or consult (reading materials). They gathered the information through self-directed learning and reading. Finally, each group proposed viable solutions problem and presented orally to the class, and eventually submitted the written to the researcher. In the following week, a debriefing session was conducted by the researcher and discussed unclear issues related to PBL and writing. The procedures were repeated for the second ill-structured problem.

FINDINGS

To answer the research question of the study, *what do the undergraduates do to support one another in the writing process*, the participants' interactions during the PBL process were observed and audio- and- video recorded by the researcher. The findings reveal that the participants used various strategies/activities to support one another in the PBL process in order to achieve their writing goals. These include modelling or copying the strategies used by the tutors, using PBL routines such as sharing task responsibilities, clarifying instructions and unclear terms, using a dictionary, suggesting sources to get more information and checking for consensus. Other supports given by the participants to one another include creating humour, encouraging others to raise their voices while speaking, restating the time given for a session and giving an overview of the previous session. The findings are related to the findings of previous studies Hmelo-Silver and Barrows' (2006) and Nguyen (2013) which show that students support one another using various strategies in collaborative learning. The following sections present each of the supports used by the participants to help one another in the process.

Modelling

To support one another in the PBL writing process, the participants imitate and model the strategies used by their tutors. As the tutors use strategies to facilitate the participants' learning, the participants copied the strategies and to support one another in the process. The tutors faded their facilitation when the participants learned to use the strategies themselves. For example, when a tutor used 'pushing for explanation' as a strategy to influence the participants in providing details on how to solve an ill-structured problem, the participants also learned to use the same strategy as shown in Excerpt 1. The participants used the strategy (as done by the tutors) to encourage their peers to give more explanation on certain causes or solutions of terrorism in Northern Nigeria.

Excerpt 1

John: Poverty is another cause for the terrorism.

Umar: How?

John: I said it because people that don't have money if another man give them 20,000 Naira and ask them to join terrorist group they will.

Habib: Yes, I agree because most of our youth are jobless. You graduate from school and have nothing to do. As the result, they engage in evils.

Justina: So… what shall it be done?

John: So the issue of poverty, I am suggesting, government should put more things on ground that are going to help to eradicate poverty. On the issue of self-reliance, we should also enlighten our younger brothers and sister to learn something that will help them.

John was pushed by Umar to explain his reasons for saying that poverty causes terrorism in Northern Nigeria. This allowed John and Habib to think of some possible explanations to the claim. On her part, Justina further pushed for more explanation on how to eliminate poverty in the country. 'Pushing for explanation' enabled the participants to recollect their personal experiences and generate substantial causes, effects, and solutions to the ill-structured problem. The participants' modelling or imitating the strategies used by the tutors, is based on the idea of handing/taking over in the scaffolding process (Van Lier, 2004); that is a tutor smoothly withdraws his/her support when the learners can do it alone.

Sharing Tasks and Responsibilities

The participants also support one another in the PBL activities by sharing tasks and responsibilities which is part of the PBL routine (Hmelo-Silver & Barrows, 2006). As in an ideal PBL context, the participants assign roles and responsibilities to one another at the beginning of the process. The selected a group leader and assigned him/her the responsibilities of controlling the group session, a scribe, with the responsibility of recording the group activities and findings. The following Excerpt shows an example of sharing task and responsibilities by the participants at beginning of the PBL sessions.

Excerpt 2

Ishaq: Now, who will be the leader, the chair?

Ummi: Yunus will be the chairman.

Yunus: Ok, I will chair it.

Ishaq: And the secretary, who will be?

Amina: Ummi should be the secretary.

Ummi: Ok I will write down the points

Yunus: Ok, Maryam, you write for us.

Ishaq: You, control the group discussion while

Umar asked if any of his group members could voluntarily be the group leader. None of the participants selected any role for him/herself. Rather, they assigned the responsibilities to their peers, and those assigned with the responsibility did not reject. For instance, Yunus was nominated to be the group leader by Ummi, while Ishaq suggested Ummi as the scribe for the group. Sharing the responsibilities created a sense of belonging among the participants as they all felt belonged to the group. That engaged and made them participate actively in the process. It allowed them the opportunity to plan the writing activities. It also created a sense of responsibility among the participants, as every one of them knew what he/she was expected to do. This reduced the anxiety of finishing writing alone (Ezeanyanike, 2013).

Clarifying Instructions and Unclear Terms

The participants used the clarifying instructions part of the PBL routine to support one another. In the PBL process, students are expected to make some clarification regarding the procedures, explain everyone's role and set ground rules before the commencement of the activities. In this study, the participants clarified instructions on how the PBL activities would be carried out. They reminded one another about the roles they were expected to play to enable them to propose viable solutions to the ill-structured problem and set ground rules. Excerpt 4 illustrated how the participant's clarified unclear terms at the beginning of a BPL session. They were about to read the

problem talking about terrorism in Northern Nigeria.

Excerpt 4

Yunus: Now, we have an ill-structured problem. We are going to brainstorm about and see if we can come with possible solutions to it. When we finish everything we are going to write a composition on this problem. As a chair, let me remind you something. In this group the chair will control the discussions, the secretary will write our points. While we are discussing, we identify possible causes and solutions, and Study issues or learning issues and possible actions.

Amina: Ok

Yunus: So now, I will begin with reading the problem. Our ill-structured problem is this, and everyone should listen to it attentively. If you have any question regarding it, you ask and it gets explained.

In the excerpt, Yunus explained how the activities should be carried out. He further explained some of the set rules that no one should speak without permission. They should speak in turn and anybody who wanted to speak should indicate by raising his/ her hand. All the group members agreed with the rules. This helped in refreshing the minds of the participants by reminding them of what they were told by tutors during the introduction and debriefing sessions. It also helped them to remain focused on the process.

Similarly, based on the PBL steps students are expected to clarify unclear terms in a given ill-structured problem to ensure that every one of them understands the problem before they start brainstorming. The participants supported one another by clarifying unclear terms in the ill-structured problems to enable every one of them to understand the ill-structured problem better. The episode below occurred when the

participants were discussing possible causes and solutions to the problem of students' excessive engagement with social media.

Excerpt 5

Amina: Any question regarding the understanding of the problem? We have a problem and we need to study it, but before we go into the problem, is there any that we need to clarify?

Yunus: Is there any term that we need to clarify before we move further, or are the terms all clear?

Ishaq: As far as I am concerned, the terms are clear to me

Amina: Do you all understand?

Yunus: Well, I think I understand the problem

Amina: Mallama Ummi, do you understand the problem?

Ummi: Yes, I understand

Amina: Now, what do we need to do first... we know the problem now. What is the next step?

In the excerpt, Amina asked everyone if there was anything to clarify in the ill-structured problem. She made sure everyone understood the ill-structured problem before generating possible causes and solutions. This helped the participants to have a clear and uniform understanding of the ill-structured problems in order to propose viable solutions in the same way. It also enabled them to understand the points made by every other participant.

Using Dictionary

Use of a dictionary is another PBL routine the participants used to support one another in the process. In the PBL model, students are allowed to consult resource books, such as a dictionary for more information during the interactions. The participants had identified unclear terms, they checked their dictionaries to get the meaning of the terms. They referred to the dictionaries in their mobile phones for the meaning of unfamiliar words and examples of how the words are used in a sentence.

Excerpt 6 is an example of that. The participants were discussing the ill-structured problem about excessive engagement with the social media by Nigerian undergraduate.

Excerpt 6

Ismail: Before we go to that, do we check some unclear terms?

John: No, but we need to clarify unclear terms before we go on

Habib: There is this word menace, I don't know.

Umar: Menace?

Habib: Yes, we need to check dictionary for the meaning

John: So what can we say about this word menace? Can anybody explain the way he understands that word?

The participants identified some words that they were not familiar with. One of the words is *menace.* The word was not clear to Umar and as such, he asked for clarification. Habib suggested that they consult a dictionary. The meaning of the word was checked in the dictionary and explained to Umar. This allowed the participants to rely on their own to learn the meaning of new vocabulary which in turn helped them to understand the ill-structured problem fully. It also helped them to get the appropriate words or terms to express their ideas clearly while planning and reviewing the proposed solutions to the ill-structured problems (Luna & Ortiz, 2013).

Suggesting Sources to Get More Information

The participants supported their discussions by suggesting sources to get more information to enable them to propose viable solutions to ill-structured problems. During the discussions, the participants identified issues they need to find more information about to enable them to propose viable solutions. The information is important as it allows them to support their claims while they propose their solutions. Therefore, they identified sources where the information could be obtained. How the participants suggested various sources of

information is illustrated in Excerpt 7. The participants mentioned the high level of illiteracy as one of the contributing factors to the problem of terrorism in Northern Nigeria n the excerpt.

Excerpt 7

Umar: We do not know and we need to know the level of ignorance in Nigeria as everybody says what he thinks. For example, some people said out of every ten Nigerian seven must be ignorant. So is this statistics correct? Is our ignorance up to such level? We need to go and research. We need to go and find out the correct answers to these. So I think this is another issue we need to learn.

John: Ok, the issue is that where do get the statistics? How do we know the statistics?

Justina: We need to browse the internet. We also need to read newspapers especially the column where it is written about poverty and education. Then we compare the statistics and see whether they going in the same direction or not.

Umar said that he learned from an unconfirmed source that for every 10 people in Northern Nigeria, seven had no formal education. The participants agreed to search the Internet and the available newspapers to verify this information. This helped them to have focus and save time while looking for the information. It also agrees with Cotterall and Cohen (2003) that learners perform better when they are assisted to locate appropriate text and data in planning their writing activities.

Checking for Consensus

Hmelo-Silver and Barrows (2006) describe checking for consensus as an important strategy that helps students to keep the learning process on track and ensure all ideas are recorded and that the important ones are not lost. Checking for consensus also

encourages students to become self-reliant for direction and information during self-directed learning and allow them to evaluate their learning performance. Here, whenever the participants wrote down their ideas during the planning sessions they asked the opinions of peers to confirm that all ideas were recorded accordingly. After drafting the proposed solutions, they also asked the views of one another to confirm that all important ideas were included. Excerpt 8 is an example of checking for consensus among the participants.

Excerpt 8

Umar: Have we written all the points?

Justina: Let's check the outline.

John: I think here we can add that, there are many ways people can be self-employed. For instance one can learn carpentry, welding, hairdressing, barbing, and so on. I think when everybody is engaged self-reliance would definitely come.

Umar: Habib, read the outline.

Habib: We have mention what people should do to eradicate poverty but we have not included what should do to them.

In the excerpt, the participants asked one another for consensus. Umar asked if all the ideas generated were written down. Justina suggested that they should refer to the outline and check. Checking for consensus helped them to ensure that the important ideas recorded during in the planning were included in the writing. It also helped them to keep their learning process on track and to evaluate their learning outcome.

Creating Humour

In this study, the participant used humour to support their learning process as in Excerpt 9 the participants were hypothesizing why Nigerian undergraduates excessively engaged with the social media. Creating humour is based on Nguyen's (2013) affective support which she describes as support that makes students endure and

engage with a task in a collaborative learning process. It also allows students to build up a rapport with one another, increase their motivation self-confidence and sense of safety.

Excerpt 9

Tutor: Ok, any other factor?

Ismail: We have falling in love

All: (Laugh)

Tutor: So, what should be done in order to solve that problem?

Tanko: Avoidance, avoidance of falling in love

Ummi: I think a solution to this is, if he is a male, he should avoid female friends and if she is a female she should avoid male friend

Tutor: Any other idea?

Khadija: I think he should have enough time to study and have small time to have love with his girlfriend, not to stop completely

Tanko: It is unavoided

Khadija: Nobody can avoid it

Ismail mentioned that dating or romance may be seen as one of the major factors leading Nigerian undergraduate to engage with the social media excessively. This amused all his group members and made them all contribute to the discussion. Humour helped to ease tension among the participants, reduce frustration and made the discussion lively. It also involved all the participants in the discussion and encouraged them to contribute. Using humour in this environment made the interactions more interesting and allowed the participants to build closer relationships (Holmes & Marra, 2002).

Encouraging Others to Raise Their Voices While Speaking

The participant supported their peers by encouraging them to raise their voices whenever a participant spoke with a low voice while contributing or explaining some ideas. Excerpt 10 is an instance where the participants encouraged others to speak

louder. In the excerpt, the participants were discussing the problem of terrorism in Northern Nigeria.

Excerpt 10

Amina: We also have poor parental up-bringing

Yunus: What? You speak too low.

Amina: Ok, poor parental up-bringing

Yunus: How? Please rise your voice

Binta: We are not hearing. Loudly!

Abubakar: Yeah, we can't hear you.

Amina mentioned poor parental upbringing as one of the factors that contribute to the problem. However, her group members did not hear what she said. As a result, Yunus requested that she speaks louder so as to enable them to get her point. Yunus's action motivated Amina and psyched her up to put more effort into explaining the idea. Also, it made her feel being part of the group as everyone wanted to listen to her explanation. By encouraging others to speak louder while contributing, it enabled every one of them to listen attentively to what others had to say and made them participate in the discussion actively.

Restating Time Given to a Session

The participants supported their learning process by reminding one another the time allocated for a session. Whenever a group discussion was taking too long or going off the point, the participants reminded each other the time remained for the session to be completed. Excerpt 11 shows how the participants reminded themselves of the time allocated for the session and the need for them to focus on the relevant task. They were discussing the problem of undergraduates' excessive engagement with social media. The discussion seemed to be going off the point when Jibril abruptly drew their attention and reminded them of the time.

Excerpt 11

Jibril: You see we have mentioned many things here and time

Tanko: We need to be writing so that we can finish in the session

Jibril: Remember we just have an hour so if we are to keep expanding them we spend more than five hours without finishing.

Khadija: So let's just expand a little bit

This helped to make the participants concentrate and put more effort to accomplish the task. It also helped the participants to focus on their task and avoid unnecessary discussions. It generally helped the participants to strategize and prioritise their activities in the interactions.

Giving an Overview of the Previous Session

The participants supported one another by giving an overview of the previous PBL session. At a beginning of every new session, a group leader summarized what transpired in the previous session before announcing the aim of the current one. This refreshed the minds of the participants and made them see the connection between the previous session and the current session. This also allowed the participants to remained focus in the discussions, as they knew the goals of the session. Excerpt 12 is an example of how the participants gave an overview of previous sessions. It occurred in the second PBL session of the first cycle when participants were about to share the findings of their self-directed learning. Giving an overview of the previous session also, is part of Nguyen's (2013) affective support.

Excerpt 12

Yunus: Good morning, all

Ishaq: Good morning

Yunus: The essence of today's session is to discuss our findings of the research or the findings of what we have been learning as the learning issues. But first of all we need someone to chair the meeting. Who do we appoint to chair? I was a chair last time. Ishaq also was a chair one time. Malam Abubakar was absent last time. So Amina will be the

chair today. So you take over, you guide the discussion.

Amina: Ok, good afternoon, everyone!

All: Good afternoon

Amina: In the last meeting everyone was giving a task to carry out. How far, have we all done what we are supposed to do?

It was observed that the participants' performance improved in the second PBL cycle while solving the second ill-structured problem. In the second cycle, there was less facilitation from the tutors as the participants took major roles in their learning. The participants were able to employ the strategies used of the facilitators in the first cycle, such open-ended questioning, pushing for an explanation to support one another. This indicated improvements in their level of familiarity with the PBL process and with their respective group members. This was possible because they had already established rapport with one another in the first cycle. Excerpt 13 is an example of how the participants pushed one another to give more explanations on a certain idea in the second PBL cycle. Yunus mentioned that Nigerian undergraduates excessively engaged with social media because their system of education was not interesting. Abubakar did not refute but asked Yunus to explain what he meant by being not interesting. Yunus explained that their schooling system was not interesting while the social media was. He was further pushed by Ishaq to give more explanations on why he made such a declaration. It could be noticed that nobody evaluated what Yunus said; they only probed him to give more information on the issue.

Excerpt 13

Yunus: I think is because the schooling here is not fun.

Abubakar: What do you mean by fun?

Yunus: I mean it is not interesting while being on the internet or social media chatting is.

Ishaq: Can you tell us why it is no interesting?

Yunus: I said, I think another reason why students waste their time on the internet or social media is because… you see our studying time, the kind of schooling system here is boring. We want some break but no break. We spent two hours in the class that is not comfortable and in become very boring but when you go to the internet it is very interactive.

DISCUSSION

The findings of the study showed that the participants used many activities to support one another in the PBL writing process which include modelling the strategies used by the tutors. These results support the findings of the previous studies. It could be classified that PBL provides a suitable social environment which allows students to freely interact with one another for effective learning to take place; a learning context where scaffolding could be applied to achieve ZPD. The study shows that knowledge and ability arise in a social activity where all learning is co-constructed in the process as pointed out by Vygotsky (1978). It could also be claimed that the PBL approach allows for students' actualization of ZPD which is the distance between the actual developmental levels independently achieved by a learner and the level of potential development achieved under the guidance of an adult or in collaboration with more capable peers. As the participants receive assistance from peers, their writing skills improve better than what they might have been able to achieve independently.

The findings have supported the findings of Schwieter (2010) which show tutor and peer scaffolding significantly help in improving the writing skills of students. They observed that the scaffolding enables learners to utilize and apply what they learned in the previous essay to a subsequent unrelated essay. These findings are in consonance with many other findings which found that tutor

support and peer collaboration help students to develop their writing skills (Elola & Oskoz, 2010; Luna & Ortiz, 2013); allows mutual interaction, sharing of ideas and expertise, and reflection on the language used (Yong, 2006); gives opportunity to pool ideas and provide feedback to one another and that allows them to produce better texts in terms of task fulfilment, grammatical accuracy, and complexity (Storch, 2005), promotes students' motivation, and awareness of the audience (Choi, 2008). The findings also confirm the previous ones that students support their peers by consulting external sources of information and other with reference materials, such as the use of the dictionary to check for the meaning of unfamiliar words (Nguyen, 2013). Cotterall and Cohen (2003) suggest that learners perform better when they are assisted in locating appropriate text and data in planning their writing activities.

CONCLUSION

The study aims at examining the participants' interactions in the PBL writing process with the aim of identifying how the participants support one another to enhance their writing performance. The study reveals various supports used by the participants such as: These include modelling or copying the strategies used by the tutors, using PBL routines such as sharing task responsibilities, clarifying instructions and unclear terms, using dictionary, suggesting sources to get more information and checking for consensus, creating humour, encouraging others to raise their voices while speaking, restating the time given for a session and giving overview of previous session. Although the study is limited to a small number of participants and a short period of time, further studies could address that by using a large number of participants and a longer period. The study has implications for writing teachers, particularly in the Nigerian context. It presents PBL as an alternative method to the traditional product-based methods of teaching writing used by many Nigerian lecturers, which mostly emphasize

the mechanical correctness of students' writing output, and pay little or no attention to the writing process (Muodumogu & Unwaha, 2013). This is because PBL looks at both the writing product and the process and allows students to interact in the process.

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