Collaborative Writing among Second Language Learners Using Google Docs in a Secondary School Context

[1]Debbie Lawrence and [2]Lee Kean Wah

Faculty of Psychology and Education,
Universiti Malaysia Sabah,
Sabah, Malaysia
[1]daybee.dl@gmail.com
[2]kwlee@ums.edu.my

ABSTRACT

This study investigates the use of web-based, task-oriented and collaborative writing for academic purposes. Twenty Form 5 students of proficiency levels ranging from moderately proficient to weak used Google Docs to construct an argument of a given topic in pairs. The duration for this study was one month. The purpose of this study was to explore the nature of collaborative writing in a Web-based writing context. Details of the students' writing processes and their perceptions of the online collaborative writing were examined via a questionnaire and interviews. Coding's were created via document analysis of students' written texts; while a survey was conducted to explore students' perceptions. Findings suggest that students' collaborative writing were focused more on forms than on meanings. A great deal of grammatical changes was made but not all errors were correctly revised, indicating a lack of mastery of grammatical accuracy. Survey results indicated that the students participated positively to the ease of using Google Docs. This study proves that the nature of ESL writing can experience change in a positive manner and students can be directed to experience a more autonomous learning.

Keywords: Google docs, collaborative, writing, scaffolding, Vygotsky's ZPD

INTRODUCTION

In the secondary school context, the concept of the 21st century classroom is heavily emphasized: learning objective boards to share their goal of the day, parking lot section to 'park' questions, a 21st century sitting arrangement are among the few methods to facilitate this. All of these new techniques serve as an 'invitation' for students to collaborate more. By adopting 21st century learning practices, individuals can have adaptive problem-solving skills, be global thinkers and have digital fluency.

The term collaboration is generated from Vygotsky's elaboration on the role of social interaction in learning and the concept underlying the communicative approach in L2 Learning. One of the opportunities for collaboration during lesson is collaborative writing. It provides an opportunity for students to write as part of a community whereby support and guidance can be obtained from one another.

This study focuses on the effects of using Google Docs on students' collaborative writing: its perception and the nature of collaboration. Google Docs is selected due to its easy accessibility to the teacher and learners, its free use and the features that it provides which include word documents, spreadsheets and the availability of web forms for data analysis.

To meet the challenges of the 21st century, collaborative practice using Web-based word-processing tools is being promoted as mentioned in the Malaysian Education Blueprint 2013 – 2025 whereby 1Bestarinet is the proposed platform for all virtual educational purposes. Collaborative writing, which relies largely on theories of social interaction, is believed to give learners a better sense of audience as they work with each other or in groups.

This study is based closely on Kessler, Bikowski and Bogg's (2012) work on using Google Docs to promote collaborative writing among students, particularly on the following two objectives:

- How do students engage in the collaborative writing process using Google Docs?

- What is the nature of participation in Web-based collaborative writing?

In Malaysia, students generally respond well to the use of ICT in learning given that appointed schools in this country have passed the Key Performance Indicator (KPI) of utilising 1BestariNet in their lessons. This shows that Malaysian students generally respond to the use of technology in learning English and a search of literature reveals that technology has influenced ESL writing process and practices.

Collaborative writing using an online tool as a platform helps students see writing as a dynamic process and helps them focus more on meaning in their writing very early on as opposed to the final product. Newer technologies have also enhanced the use of these tools to go beyond just online writing as they often take place within discussion boards and online chats. Applying collaborative writing using an online platform is certainly a necessary step that gears education to the needs of the 21st century.

Scaffolding is necessary for this implementation as students have different proficiency levels. Feedback becomes a collaborative dialogue between students in pairs. There will be many versions of the first draft which will eventually lead to the construction of the first draft. When the first draft is completed in pairs, it will be revised

once again by peers. Feedback can also represent comments given by peers. After that, students will contribute to their first drafts and make necessary changes. Finally, a revised draft is produced. This is all done in a web-based context that allows real time computer-mediated instruction to take place.

LITERATURE REVIEW

Learner Autonomy

The core of the notion of autonomy according to Lev Vygotsky (1996) are learners' abilities and willingness to make choices independently. The term 'autonomy' started in foreign language teaching when it was acknowledged that language learning requires the active involvement of learners. Littlewood (1996) began his definition of autonomy with two components: **ability** and **willingness**. As of late, learner autonomy is frequently associated with an online learning environment as it has the potential or affordances to promote it, including access, storage and retrieval, sharing and recycling of materials, cost efficiency, authenticity, interaction, situated learning, multimedia, new types of activities, non-linearity, feedback, monitoring and recording learning behaviour and progress, control and empowerment. Also associated are the teachers' and learners' role in promoting this autonomy where there are specific suggestions on teachers' pedagogy.

Learner Autonomy and Technology

Technology's role in fostering autonomous learning has been vaunted over the years. Deborah Healy of Oregon University has outlined some of the considerations when planning and implementing learning with technology: independent learning, learner needs, what technology can provide, and facilitator's role.

In terms of independent learning, metacognitive skills are necessary. These include the awareness of learning styles and the ability to track one's own progress. ESL learners have different needs which are influenced by culture, first language development and second language skill building. ESL learners have an expectation in regards to student's and teacher's role mainly teacher as the giver of knowledge and students as the receivers. Although the paradigm of learning has shifted towards a student-oriented approach, issues on outlining and employing this approach still exist. For many ESL learners, the teacher's duty is to impart knowledge and their duty as students is to memorize it.

Differentiated instruction is derived from the knowledge of the different needs of learners. These needs are categorised into linguistic, metacognitive, psycholinguistic and social. For the linguistic side, Krashen's i+1 theory is the core whereby learners must have language data and the opportunity for practice in order to acquire or learn a language.

Language data should be within the i+1 comprehension level. Instruction following a certain sequence as well as providing rules for deductive learners are considerations for learning to take place or language to be acquired.

For the metacognitive aspect, learners are 'learning how to learn'. It is believed that learners do well if they know their learning style, understand their path through the materials to be learned, and have a way to assess their learning progress.

For psychological factors, a learner's self-validation, motivation and engagement with the material should be taken into consideration. Self-validation is especially important as learners may come from marginalized social groups. Healy adds, where the learner's first language and culture are respected, he is likely to be less afraid of losing self when learning a second language. For social factors, learners need a sense of community with their peers and home to be receptive of learning.

This study also reveals that students can operate technology and shows their development in learning how to learn skills. They do this by emulating what is done by students with higher proficiency. However, Malaysian students in this study show a dependency on the teacher and teachers themselves are not prepared to let students be autonomous. Also, the fact that the curriculum is a guideline on what students need to build on, it poses the question if it should be recognized as autonomous learning when the definition of autonomous learning is for students to construct knowledge on their own.

Based on the belief that learners require knowledge and skills to acquire knowledge via interaction, collaboration has been extensively analysed for its potential in this area. Collaborative practices are being increasingly advocated in second language classrooms largely in response to the collaborative potential of Web 2.0 features.

Theoretical Framework

The main theoretical framework underpinning this study is Vygotsky's Social Development Theory, which emphasises social interaction in learning. This study attempts to expand this practice to a Web-based context that is heavily influenced by Kessler's (2010) work. Vygotsky believes that community plays a central role in the process of 'making meaning' and that 'learning is a necessary and universal aspect of the process in developing culturally organised, specifically human psychological function.' Vygotsky (1978) has also stressed every function in the child's cultural development appears twice: first, on the social level, and later the individual level.

Assumptions on learning come in many but almost similar forms (Piaget, Binet, Koffka). The first view asserts that a developmental cycle precedes learning, maturation precedes learning and instruction lags behind mental growth. The second view states

that both learning and development occur simultaneously. It is based on the view of conditioned reflex or habit formation. But both views agree that development is conceived as the elaboration and substitution of an innate response. There is also a third view that expresses development as based on two different but related processes and both has influence over the other.

Vygotsky believes that because all three viewpoints on learning are closely related, there must be a missing link. He asserts that link is interactivity which was left unexplored in all three assumptions.
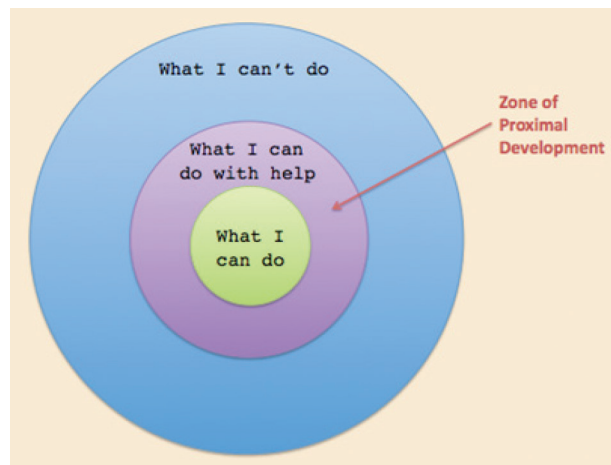

Figure 1 Vygotsky's (1978) Zone of Proximal Development

Basically, Figure1 above points out that the range of skill that children can develop with adult guidance or peer collaboration will exceed that what is obtained alone. The analogy of a child learning from his father before entering preschool was used by Vygotsky to show that interaction actually plays a crucial role in a child's learning and development.

Alan Rivera (1999) in his study of Collaborative Writing Instructions and Communities of Readers and Writers expanded on the importance of social interaction when he announced that collaborative writing provides opportunities for students to write as part of a community where one can refer to each other for support and guidance. The author states that students often learn more effectively when asked to perform tasks in pairs, small groups, and teams than when working alone.

Besides that, in the domain of ESL writing instruction, which is the domain of this current study, collaborative learning is receiving growing interest as it promotes a

path for learners to be autonomous as they can assess and compare their current and previous work, receive constructive comments to guide them and give authentic feedback to another's views.

Collaboration involves certain social skills that can lead any party involved to have an opinion or a decision. Previous researches on collaboration, specifically collaborative writing, concur that sustained interpersonal engagements are likely to include strain and conflicts (Fung, 2010; Mulligan & Garofalo, 2011).

Collaborative writing to increase students' sense of responsibility in learning can be understood by looking into collaborative writing features. Yong (2011) suggests two features in collaborative writing, which are the **defining** (mutual interaction, negotiations, conflict and shared expertise) and **facilitating** features (affective factors, use of L1, backtracking and humour). Facilitating features, if not handled properly by teachers, will hinder successful collaboration. These two features will also work hand in hand when students are made aware of their role as contributors. It is also important that there is no authoritative role in a collaboration as in this case study whereby one student has better proficiency compared to his two team members. Weaker students can share their ideas while enhancing the syntactical element of language can be done by more a proficient student.

The reason why features of collaborative writing in ESL and EFL were explored in this section was to provide 'guidance' on positive behaviour for students' collaboration. These studies basically support a similar premise: collaborative writing allows students to have a better sense of responsibility so that they can grow through academic interaction.

The contributions in collaborative dialogue in the blogosphere were studied by Yu-Chih Sun and Yu-Jung Chang (2012) by analysing collaborative dialogue among seven graduate students. Their study viewed blogs as a social medium for knowledge and identity construction and aimed to explore the types of writing-related topics students blogged about and, most importantly, to determine how collaborative dialogues facilitated its process. This mixed method analysis of seven EFL students collaborative dialogues on blogs allowed them to:

1. Scaffold each other in navigating their writing tasks.

2. Negotiate and understand identities as academic writers.

3. Process academic writing knowledge.

Therefore, from Yong's (2011) and Yu's (2012) studies, the results of their observations of students' collaborative product and the collaborative dialogue created echo the social constructivist theory in language learning. The social constructivist

theory proposes that the development of knowledge should require learners to have active engagement and social interaction. This social process serves as a means of internalizing newly encountered ideas or concepts which will result in successful learning.

Understanding one's identity as a writer to serve a specific purpose is also stressed on by Bush and Zuidema in their 2013 study on Professional Writing in the English Classroom: Professional Collaborative Writing: Teaching, Writing and Learning Together. The authors state that writing collaboratively is significant as students will eventually write professionally when they enter the workforce. Writing as an individual is not simple as it requires carefully choosing audiences, purposes, genres and rhetoric. If writing is considered an individual act, as it is in most ESL secondary classes, learning to write professionally as representing an organisation is missed.

For online collaborative writing, most of the researches are developing a deeper understanding on the use of wiki. Most of the researches are descriptive, reporting on teachers' and learners' experiences of wikis implemented in L2 writing classrooms. For example, Kessler and Bikowski (2010) developed an online writing collaboration framework which involved observing students' behaviour in a shared wiki page. The results of the observation showed that the characteristics of successful autonomous collaborative learner include the ability to use language and appropriate strategies as well as the willingness to display these abilities within a group. The framework developed by Kessler and Bikowski is as follows:
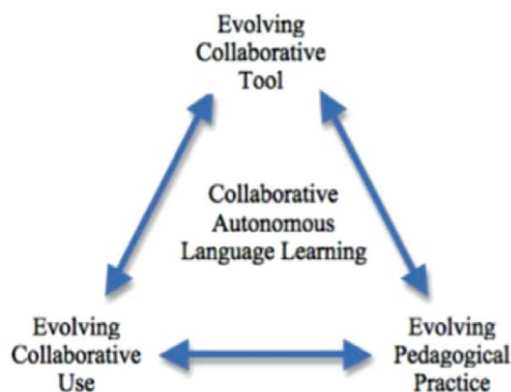

Figure 2 A framework for the co-evolution of collaborative autonomous pedagogy

Another study by Kessler (2009) conducted with 40 EFL adult learners reported on students' lack of attention to language use when collaborating in a wiki project. Kessler analysed learners' attention to accuracy in a 16-week project. Based on the analysis of learners' revision activities, it is shown that learners' attention to Language

Related Episodes (LRE) or languaging (Swain, 2001) were mostly on content and style rather than form. When corrections to form were made, learners focused on word choice and spelling rather than on grammatical accuracy.

Previous research in an ESL context generally show that online collaboration in writing promotes active learning, improves writing skills, cultivates a sense of audience, enhances the importance of feedback and revision, reduces the stress of writing, promotes mutual help, develops higher order thinking skills and enhances interactivity.

A more precise view by Kessler (2013) is that collaborative language learning allows learners to co-construct in social media or in this case, a Web 2.0 tool. Web 2.0 plays an indispensable role as the platform for it. As we move forward by utilising social media to promote a participatory culture, one of the most important things is the manner in which the writing has been constructed and disseminated.

For instance, Jessie Choi Wai Ching's 2008 study examined the role of online collaboration in promoting ESL writing. The samples for her study were clearly defined (36 intermediate level students) as this was important to do a comparison with the current study. The fourteen weeks duration given was also relevant as three tasks were involved and intermediate ESL students needed time to hone their willingness and ability, as was the case in this current study. What was revealing in terms of motivation was that students acknowledged that they could learn from their peers but did not perceive that online collaboration could increase their motivation in writing. This reveals that more study is needed on the relationship between online collaboration and students' proficiency levels.

Storch (2011) in his review of articles regarding the processes, outcomes and future directions of collaborative writing in L2 contexts said that the common consensus was that collaborative writing allows learners to reflect on language use. Besides that, the mode of communication also had a bearing on learners' attention to language in a writing task.

Google Docs and Online Collaborative Writing

Kessler et al. (2012) conducted another study, this time in the use of Google Docs in a project-oriented and many-to-many collaboration, as an extension to their previous research. The study provided a detailed description on how the study can be replicated, the types of contributions that could emerge from students' data and the observations of students' participation in this web-based setting.

In the study, details of students' writing processes, perceptions and experience were explored. The information was gathered from students' scripts in Google Docs, the revision history and post-implementation questionnaires. The results showed that all students had

participated in the collaborative writing project via the number of Language Related Contributions (LRC) and Non-Language Contributions (NLRC) that were obtained. Based on students' produced scripts, meaningful contributions (55.7%) were mostly made by students in terms of LRC while NLRC only recorded a total of 17% of exchanges. The only restriction this study had was that, without a control group and an experimental group, determining the extent of the benefits of collaborative writing was difficult. Nevertheless, this is an informative research and its procedures and data analyses are emulated in the current study to explore the nature of students' collaborative writing.

Along the same vein of adopting Google Docs is Zhou, Simpson and Domizi's (2012) study involving 35 undergraduate students over a six-week period. This study employed two assignments and a questionnaire to explore students' experiences. The results showed that all students responded positively to the use of Google Docs as it gradually became one of the means of communication when students were out of class.

In Thailand, a study (Suwantarathip &Wichadee, 2014) was undertaken to assess, via pre-test and post-test using a quasi-experimental design, the effect of collaborative writing activities using Google Docs had on students' writing abilities. The writing abilities of two groups were compared where one group employed Google Docs for out-of-class task while the other worked in groups in a face-to-face classroom. The instruments used were the students' written task, and pre- and post- questionnaires. The results indicated that there was a significant difference between the two groups' writing mean scores. Students in the Google Docs group gained higher mean scores than the latter. Similar to previous studies, students responded positively to towards the collaborative writing activity. Another revelation, which is absent in Zhou, Simpson and Domizi's study, is the evidence that the vivid contribution by peers in Google Docs documents actually serves as motivation for students to put more effort in their work.

The three articles were compared in terms of procedures, research instruments and results for this study so that the researcher could anticipate and be prepared for the navigation in this study. While Kessler et al. provided an outline for the types of contributions that learners would make, the two other articles did not provide extensive details on this aspect. However, the novelty of Zhou, Simpson and Domizi's study was the out-of-class collaborative writing activity as opposed to being treated as a conventional essay. Also for Suwantarathip and Wichadee's (2014) study in Thailand, two group were created to compare extent of the benefits that Google Docs had on students' learning.

In general, all of the studies agreed that the use of Google Docs to promote collaborative writing has much potential. In the field of Second Language Acquisition (SLA), a number of researches have shown that scaffolding can be provided by peers in pair or group work, where the role of the expert is said to be fluid or shared by learners pooling their expertise. This is a process referred to as collective scaffolding (Storch, 2010). In spite of the numerous benefits, there are concerns which need to be taken into consideration.

Concerns about Online Collaborative Writing

Some consideration that should be looked into when observing learners' development using online tools are learners' metacognitive skills in discovering learning styles, their ability to reflect on one's own learning progress, their motivation for greater responsibility's in learning, and learners' needs. ESL teachers should also evaluate the technicalities before implementing collaborative online tasks such as the sequence of instruction, offer language data according to Krashen's i+1 level as well as provide explicit instructions for weaker or deductive learners before assigning tasks. Cooperative learning, be it online or off, can achieve maximum success when teachers and students are fully aware of their role (Wang, Tzeng & Cheng, 2000; Fung, 2010).

The teacher's explicit instruction is vital in this study, especially so for learners with lower proficiency. An area to be looked into is differentiated online tasks for different levels of learners. Learners in this study will eventually be exposed to online collaboration tasks when they enter tertiary education. Therefore, it is up to the teacher's discretion to weave through delicate emotions which form the motivation for learning.

METHODOLOGY

This research employs a qualitative methodology to describe and answer questions about the participants and context of study. This study aims to explore the development of the collaborative writing process using a Web-based word processing tool. The first research question posed was examined through the triangulation of data obtained from my observation, participants' writings through Google Docs, and post-event questionnaires for a deeper insight to learners' collaboration. The questionnaire developed for this study aimed to gather learners' perceptions of collaborative writing in an ESL environment. The second research question was examined analytically based on learners' contributions to their collaborative writing. Learners' contributions were then categorised according to their writing and revision activity.

As seen in Table 1, the majority of students scored Bs and Cs. Prep class for the actual intervention was done for three weeks whereby students worked collaboratively on paper with hopes that the skills adopted could be transferred once they moved on to the online task. Students were also exposed to the features of Google Docs prior to the actual implementation.

Table 1 Participants' demographic information

Participant	Gender	Mid-Sem Test Score	Grade
1	F	74	A
2	F	64	B
3	F	78	A-
4	F	60	B
5	F	88	A
6	M	61	B
7	M	66	B+
8	M	36	G
9	M	69	B+
10	M	35	G
11	M	85	A
12	M	17	G
13	F	36	G
14	F	52	C
15	F	50	C
16	F	68	B+
17	F	61	B
18	F	77	A-
19	F	76	A-
20	F	59	C+

Table 2 Data collection activities

1st Week	• Teacher distributed task sheets to learners. • Brief discussion on thesis statement, topic sentence and elaboration as review. • These three aspects of argumentative writing were discussed and practised prior to task implementation. • Learners were required to draft their writing using the argumentative writing framework as guidelines. • Teacher facilitated the conciseness of learners' output in face-to-face collaboration.
2nd week	• Lesson continued. • Teacher continued to facilitate in face-to-face collaboration. • End of Week 2, learners' draft in the writing frame used was commented on.
3rd week	• Learners made necessary corrections to their drafts and rewrote them in essay form. • Teacher encouraged learners to vary vocabulary and employ more complex. sentence structures by showing examples on PowerPoint. • The purpose was to expose students to utilising information from online sources instead of just copying and pasting. • Students' work was collected and commented on.
4th week	• Teacher allowed students to review their peers' work. • Together with the teacher's comment and peer review, learners make their final edit. • Questionnaire distributed. • Teacher analysed data obtained from learners' collaborative scripts and questionnaires.

Quantitative Data Collection

Learners' perception towards the use of Google Docs as a collaborative means was examined through the distribution of the questionnaire. This questionnaire consists of three parts which are related to the task's instruction, suitability of the task and online collaboration. Finally, participants were also given an open-ended question regarding the potential of collaborative online tasks for future lessons.

Qualitative Data Collection

Learners' collaborative writing behaviour was analysed in order to determine the degree of learner participation in the collaborative writing process. Learners' writings and use of Web space was then categorised according to their contribution types throughout the writing and revision process.

RESULTS AND DISCUSSION

Students' Perceptions on Online Collaborative Writing

Based on what was observed, weaker students used L1 to express their ideas while their partner translated those ideas. The majority also stated that they felt motivated to complete the task knowing that their partner and teacher were available for assistance in creating structurally correct sentences that reflected their intention. In this instance, positive collaborative writing happened through negotiation and comprehension checks. When asked how the task was helpful, one student gave the following response:

> "*Because dapat tolong menolong dengan partner dan dapat meringankan beban*"

Littlewood (1996) explains that both the ability to take control of one's learning and the willingness to do it are vital for autonomous learning. To help achieve this, student's need to be confident of their abilities, and confidence was something many of them lacked. So it was important that the teacher provided enough encouragement and support.

Choi (2008) asserts that good comments are not necessarily helpful comments. To make their comments beneficial, students were briefed on aspects that they could comment on so that they had a clear guideline on how to assess writing. At the same time, they could also revise and assess their own writing as well. Also, at least one student thought that Google Docs was not easy, and preferred the more conventional writing task. The student felt that there was no advantage in using Google Docs and thought that it was easier to discuss face-to-face. The is probably because of the was poor internet

connection during lessons which caused frustration for students who could not log into their account to contribute as much as they wanted to. One of the ways taken to deal with this was to allow students to take turns contributing using one Chromebook or account. The teacher too played the role as a facilitator to remind or prompt students on what they needed to add or revise in their essays.

Students' Feedback on Online Collaborative Writing

The purpose of this section is to give insights on the two main research questions of this study, which are:

Research Question 1:
How do students engage in the collaborative writing process using Google Docs?

Research Question 1 was posed to find out the types of contributions made by students to their argumentative texts. The data from each pair were analysed and summarised. Data analysis from the questionnaire was used to provide answers as well and were relevantly linked to the contributions done by students.

From the data analysis, there were more meaningful LRCs made than NLRCs. In some cases, both contributions occurred simultaneously in the same sentence.

> *He was studied in lawyer's major to fulfil his family's generation tradition (?)…*

Sample 5.2.1a LRCs and NLRCs that occurred in the same sentence.

The question mark was included in that sentence as a note for the writer to either look for an appropriate term or for his partner to pick up where he left off. The partner will either correct or suggest a correction to the question.

The revision history, a feature in Google Docs, also showed that the writing activity was a dynamic process for each pair with each having at least 10 versions of their essays before the final drafts were established. Thus, Google Docs can be seen as an informative and flexible tool for teachers and students in the process of collaboration and writing. It was also easy to use as mentioned by students in the open-ended questionnaires. With regards to LRCs, the most changes were made on punctuation in terms of the placement of the apostrophe. This was followed by singular-plural changes, and then the addition of modal verbs to complete the sentence. Amendments due to grammatical errors were also frequent especially when more complex structures were used, for instance, the present perfect tense and the passive voice. However, during the revision process, students were more capable of correcting more simple errors of form such as spelling,

singular to plural verbs or nouns without prompting, but less capable of making changes in complex structures and meaning even though they could always access information online for more clarification. There were also instances where students did not respond to the comments given. For example the abbreviation 'SPM' used in one of the scripts was not changed even though a comment was given to use the full name. Kessler (2009) explains that this could be due to students being able to make changes to form correctly but did not do so at some instances as they found the errors to be less important.

Another characteristic noticed in this study was that although students could collaborate with their peers they still needed a teacher to be present to direct them. A teacher's intervention was needed especially with less proficient students to make sense of information online and usually to finish sentences. This also reveals that ESL students' dependency on the teacher is hard to shake off. However, students could complete task successfully when given consistent prompting.

On a more positive note, collaborative activities are able to draw out more proficient students who are able to act as facilitators to assist other members from other pairs. This sort of collaboration allows for not just pair discussion but also group discussion. An important point to take note is the assigning of roles to students especially when a student tries to take charge instead of collaborating and negotiating meaning. Shared expertise is important in this case as weaker student can give ideas while the more proficient writer will use the ideas and improve on the language. Through this, the topic or idea development is meaningful to all parties involved and they are exposed to better ideas, words and forms.

These findings are similar to those found by Elola and Oskoz (2010) in their study with students working in a collaborative wiki space. Through collaborative dialogue, not only were the learners in their study able to complete the task, but through exchanges of alternative scaffolding, they also achieved results beyond what they would have achieved on their own. In the ESL or EFL learning context, the tendency to revise and edit has mainly stayed at the sentence level which is probably due to the learner's limitation or expertise. They think that accuracy carries more weight. In this study, the researcher has seen a transformation in students' questions from 'What is the simple past form for affect?' to 'Which will affect parents' choices and how?' It is evident that students paid attention to meaning in their contribution.

The script's language accuracy definitely improved between the first draft and the final draft. However it could not be determined if students will perform better in a subsequent task, whether individually or collaboratively. Most of the mistakes made were commented on by peers and the teacher before corrections were made. There were also overlooked mistakes which were not commented on and not corrected even though they were similar mistakes that had already been commented on.

Besides that, parents have more <u>experience</u>. We must know that parents are much more [9]experienced than the children. They have seen the world [10]longer than their children. [12]Thus, their decision would be better and [13]more justified. Parents must have more [15]<u>experience </u>to take care of their children and to give a good guidance.

[20]Therefore, while parents have more <u>experienced </u>and are more mature than their children, it is still important to consider children's interest and wishes so that children will never regret with their decision.

Sample 5.2.1b: Students' sample text

The last instance of the work 'experienced' in sample above shows it as a verb rather than the correct form as a noun. It was not corrected by students when not prompted. However, students have generally improved their editing skills, as evident in their revision activities after prompted by teacher.

With regards to Non-Language Contribution, the changes were not obvious. This could be due to the task's format where scaffolding was provided before and during the writing stage. The scaffolding provided was the writing frame which students used to organise their content before converting them to essay form. Students' engagement with tools, their peers, resources and ideas were given more priority over changes to format.

Research Question 2:
What is the nature of participation in Web-based collaborative writing?

In this study, students worked in pairs and 2 groups worked in groups (three in a group, as there were an additional 2 new students who came in the second week of implementation). It was observed that the distribution of work during the first draft came at varying levels for each team: one person drafted in point form and another converted it to essay form. In the essay form, most of the students took turns to create a paragraph to ensure work was distributed more fairly. In some cases, students with lower proficiency were seen typing the content while more proficient students read the content out loud for his partner. When it came to making changes, there were two participation levels. In this study, the participation level involved a member who made approximately half of the team's changes and another member who only made 15 – 25% of the changes. It is unclear why participation varied among individual students. For that reason, the grades of students in this study were taken into account as a rough estimation of students' proficiency levels. In one of the groups made up of three students with a wide gap in grades, the student with the better grade completely altered the text made but retained its meaning and added more elaboration points as shown in the two samples below.

After that, every children have their own interest if the children choose a career according to their parent wish, they will have a boring academic life as they would facing a lack of interest and will get more pressure in their daily life. Beside, do the parent known about their children hidden talent? Sometime the parent just ignore their children talent because their think that the talent is useless in their children career but do their realize that the talent itself is unique and has it own traits. the talent can be polished and make their children became popular and have it own job.

Sample 5.2.2a: Earlier draft done by weak writer

Moreover, every human is special, some can do things easily while others find it hard to do the same thing. If we put that into account, wouldn't it be better for parents to utilize their natural talents so that they could achieve something? Most parents think that hidden talents like being able to recognize musical notes with their ears easily or being able to memorize a lot of numbers with little effort are useless. However, if they allow their children to pursue a career based on their talents, that presumably useless talent might actually make the person in question more successful in life than the average person. Parents' should realize that every person has their own talent and they should be taking advantage of it instead of dismissing it.

Sample 5.2.2b: Revised draft

In this collaboration, the writer in the revised draft did not dismiss ideas from his team members completely but reused some words like 'talent' and 'useless' and rewrote some ideas with more specific examples. Therefore, I believe one aspect that affected students' participation in making changes throughout the online writing process was their level of proficiency.

The result of this study is similar in certain aspects to the results found in Kost's (2011) study investigating writing strategies and revision behaviour. Students' proficiency levels in her study focused on formal changes (form) more than stylistic changes. In this study, moving sentences and placing them at different parts of the essay occurred but there was more substitution of meanings of words or sentences than in the current study. When comparing the results of these two studies, one interesting similarity was observed regarding revision made by peers and teacher. The data shows that the total revisions are higher when one of students in a pair has a lower proficiency, hence there were more meaning related changes made. In one of the samples, there were up to 36 revisions as opposed to 10 – 15 revisions made in the others. It was not an easy task to isolate contribution types as they overlapped in one sentence.

Another possibility for differing participation rates could be due to students working together on the same computer. Although students were given the flexibility to use the same account due to logistics, they had to use a different coloured font to indicate which writer contributed to which part. While each text showed the workmanship of different writers, it could not show how it affected the perceptions of ownership.

All students agreed that they worked well with their partner (Questionnaire Q19: Appendix) and the documents themselves showed no evidence of conflict when previous versions of the texts were analysed. In both drafts, there were topic sentences, elaboration and examples. The writer of the revised version made sure to retain the main ideas by explaining in greater detail. This is one example where negotiation of meaning occurred. The writers also performed comprehension checks with one another after revising the earlier draft. This is one of the important features of writing collaboratively.

Another aspect that was informative to the researcher was the **teacher's role** in facilitating the online collaborative writing task to promote autonomous learning. In this study, students were given a topic that was suitable for their level and were allowed to search for relevant information online. This allowed students to develop their ideas. However, less proficient students relied on their teacher's remarks before making any changes. This dependency was only apparent when students were contributing to their first draft. Later during the implementation, students were able to make contributions to their scripts and their peers' scripts without much intervention from the teacher.

As mentioned by Storch (2011), when implementing collaborative writing tasks, the nature of the task, the proficiency of the learners, and the mode of communication (face-to-face and computer-mediated interaction) need to be taken into consideration. Some collaborative writing tasks may not be suitable for low proficiency L2 learners. He also suggested that in any collaborative task, lower proficiency L2 learners should be paired with higher proficiency L2 learners and the nature of the relationship formed by pairs of different proficiency levels should be monitored closely by teacher/facilitator/designer.

CONCLUSION

This study has revealed that secondary ESL students with low to intermediate proficiency who were engaged in a collaborative writing task using Google docs focused on form over meaning. Overall, students successfully developed their own process towards writing as they evolved during collaboration with their peers. With regards to the tool used in this study, Google Docs was well accepted by all students as most students agreed that it was easy to use. The colour code was very helpful in detecting students' level of participation and contribution. Most students also found it easier to access Google Docs via their personal Gmail Account rather than Yesmail account which was established by Ministry of Education. Yesmail account is associated with 1Bestarinet. Despite the urge

by Ministry of Education to use it as the main platform for virtual classrooms, it was not easy to access with the limited bandwidth provided.

The results of this study also shows a contradiction to the statement that learners who can collaborate, have higher motivation levels which in turn, makes them more successful in L2 acquirement. In this research, students who had good proficiency in ESL did not completely show the **defining** features of collaborative writing but they still performed better than those who had lower proficiency in ESL. However, judging by the results between Pair 4 and 5, Pair 5 who had been more cooperative, showed better cohesion and rhetorical structure in their argumentative writing.

REFERENCES

Aydin, Z., & Yildiz, S. (2014). Using Wikis to promote collaborative EFL writing. *Language Learning and Technology, 18* (1), 160 – 180.

Balcikanli, C. (2010). Learner autonomy in language learning: Student teachers' belief. *Australian Journal of Teacher Education*, *35* (1), 90 – 103.

Benson, P. (2012). Autonomy in language learning, learning and life. Synergies, *9*, 29 – 39.

Bush, J., & Zuidema, L. (2013). Professional writing in English classroom: Professional collaborative writing: Teaching, writing, and learning – together. The English Journal, *102* (4), 107 – 110.

Chrisholm, R. M. (1990). Coping with the problems of collaborative writing. *Writing Across the Curriculum*, *2*, 90 – 108.

Elola, I., & Oskoz, A. (2010). Collaborative writing: Fostering foreign language and writing conventions development. *Language Learning and Technology*, *14* (3), 51 – 71.

Fung, M. F. (2010). Collaborative writing features. *RELC Journal*, *41* (1) 18 – 30.

Hyun J. K. (2014). The use of technology for learner's autonomy in language classroom. *A Quarterly Newsletter.*

Jessie, W. C. C. (2008). The Role of Online Collaboration in Promoting ESL Writing. CC*S*E *Journal*. *1* (1), 34 – 49.

Kessler, G. (2009). Student initiated attention to form in Wiki-based collaborative writing. *Language Learning and Technology*, *13* (1), 79 – 95.

Kessler, G. (2010). Computer Assisted Language Learning: Critical Concepts in Linguistics. Language Learning & Technology, *14* (3), 14 – 18.

Kessler, G. (2013). Collaborative language learning in co-constructed participatory culture. *CALICO Journal*, *30* (3), 307 – 322.

Kessler, G., & Bikowski, D. (2010). Developing collaborative autonomous learning abilities in computer mediated language learning: Attention to meaning among students in wiki space. *Computer Assisted Language Learning*, *23* (1), 41 – 58.

Kessler, G., Bikowski, D., & Boggs, J. (2012). Collaborative writing among second language learners in academic web-based projects. *Language Learning & Technology*, *16* (1), 91 – 109. Retrieved from http://llt.msu.edu/issues/february2012/kesslerbikowskiboggs.pdf

Kost, C. (2011) Investigating writing strategies and revision behaviour in collaborative Wiki projects. *CALICO Journal*, *28* (3), 606 – 620.

Kreijns, K., Kirschner, P. A. & Jochems, W. (2003). Identifying the pitfalls for social interaction in computer supported collaborative learning environment: A review of the research. *Computers in Human Behavior*, *19*, 335 – 353.

Littlewood, W. (1996). Autonomy: An anatomy and a framework. Journal of Elsevier Science Ltd., *24* (4), 427 – 435.

Mulligan, C., & Garofalo, R. (2011). A collaborative writing approach: Methodology and student assessment.

Nadzrah Abu Bakar. (2007). Technology and learner autonomy: Teachers' and students' perception towards learner autonomy in a computer-based learning environment in a Malaysian context. Proceeding of the Independent Learning Association, 2007 Japan Conference: Exploring Theory, Enhancing Practice Autonomy Across the Discipline. Kanda University of International Studies, Chiba, Japan.

Rivera, K. (1999). *Native language literacy and adult ESL instruction* (ERIC Digest EDO-LE-99-04). Washington, D.C.: The National Center for ESL Literacy Education.

Storch, N. (2005). Collaborative writing: Product, process and students' reflection. *Journal of Second Language Writing*, *14*, 153 – 173.

Storch, N. (2011). Collaborative writing in L2 context: Processes, outcomes and future directions. *Annual Review of Applied Linguistics*, *31*, 275 – 288.

Sun, Y. C. & Chang, Y. J. (2012). Blogging to learn. Becoming EFL academic writers through collaborative dialogues. *Language Learning and Technology*, *16* (1), 43 – 61.

Suwantharathip, O., & Wichadee, S. (2014). The effects of collaborative writing activity using Google Docs on students' writing abilities. *The Turkish Online Journal of Educational Technology*, *13* (2), 148 – 156.

Swain, M. (2001). Integrating Language and content teaching through collaborative tasks. *The Canadian Modern Language Review*, *58*, 44 – 63.

Vygotsky, L. (Ed.). (1978). *Interaction between learning and development*. Cambridge: Harvard University Press.

Wang, W., Tzeng, Y., & Chen, Y. (2000). A comparative study of applying internet on cooperative learning and traditional learning. Proceedings of International Conference on Computers in Education. Taipei, Taiwan.

Yong Mei, F. (2010). Collaborative writing features. *RELC Journal: A Journal of Language Teaching and Research*, *41* (1), 18 – 30. Retrieved from EBSCOhos database.

Yu, H. (2012). *The Language Learning of Refugee Students in Canadian Public Elementary and Secondary Schools*. [Doctoral Dissertation Paper 854]. Retrieved from http://ir.lib.uwo.ca/etd/854

Zhou,W., Simpson, E., & Domizi, D. P. (2012). Google Docs in an out-of-class collaborative writing activity. *International Journal of Teaching and Learning in Higher Education*, *24* (3), 359 – 375.