Participation Style of ESL Learners in Face-to-face and Online Discussions

SHIN-YI CHEW & LEE-LUAN NG

University of Malaya, Malaysia

Abstract

Recognising that active involvement with the target language is important in learning a second language, this research compared the participation style of language learners in different discussion settings; online and face-to-face. Personality (extroversion and introversion) and language proficiency (high-intermediate and low-intermediate) of the 48 participants were taken into account during sample selection and data analysis. Qualitative data was obtained through observation, survey and online feedback sessions to substantiate the main data gathered from the quasi-experiment. The findings revealed that the use of synchronous online setting helps to balance the participation of learners and elicits more contribution of words; especially among the introverts and the less proficient ESL learners. The findings also implied that language instructors can capitalize on this setting to elicit more participation from selected groups of students and encourage more balanced participation in the language classroom. In addition, the findings of this study showed that the medium played a role in influencing the messages produced by certain groups of learners more than others.

KEYWORDS: Online discussions, Face-to-face discussions, Participation style, Personality, Language proficiency

Introduction

Technology is one of the eight major ideas proposed by Oxford (2011) to encourage more effective ESL (English as a second language) learning. One of the most common uses of technology is online discussions. In contrast to traditional classes where face-to-face discussions are often held, the open-access online discussions enable every member to have the chance to contribute as much as they would like to (Lapadat, 2002). Apart from that, the visual salience of the messages and the self-paced setting in online discussions also enable ESL learners to have more time to ponder on recorded messages and their own production before sending their responses online (Hamat, 2008; Lapadat, 2002; Lee, 2009; Lever-Duffy & McDonald, 2011; Sotillo, 2009).

In view of the potential benefits of online discussions there is a lack of empirical research that looks into how effective it is to different groups of leaners in different learning contexts. This study hopes to gain a better understanding of the influence that the learners' individual differences have on their participation style in different discussion settings. Specifically, this study looks at learners who have different language proficiency and personality types (i.e. extroversion vs. introversion). In this research, participation style refers to the balanced or imbalanced participation of different groups of learners.

From the findings, a better idea can be gained on how to elicit more participation from a particular group of students and to encourage more balanced participation in a classroom. Encouraging more balanced participation and contributions from students during discussions will help leaners to feel more positive towards the language learning process. Moreover, active production of the target language during discussions can enable learners to receive comprehensible input, negotiate meaning, obtain feedback and modify their output. This is in line with Long's Interaction Hypothesis (1996) which believes that interaction can improve SLA (second language acquisition) as the negotiation of meaning can increase learners' comprehension of the input and the received feedback can also enable them to notice linguistic features.

Participation style of ESL learners in online discussions has been studied in the 90's by Warschauer (1996) who did a research on four small groups of four advanced ESL college learners. The comparison between online and face-to-face discussions showed that participation was more balanced in online discussions on average. However, Warschauer (1996) did raise issues on possible intervening variables such as cultural factors, learners' language proficiency and shyness. Following that, Fitze (2006) conducted a similar study with two larger groups of students which comprised of 13 and 14 high-intermediate to advanced ESL students. From the four-week observation of face-to-face and online discussions, the empirical study found that the learners' participation was significantly more balanced in online discussions. However, when the two experimental groups were analysed separately, only one of the groups showed more balanced participation in online discussions but not the other group in which participants showed quite an equal distribution in both face-to-face or online discussions. This finding showed that learners' participation style was not only affected by the discussion setting but also by other possible intervening variables such as group differences, language proficiency, shyness and introversion (Fitze, 2006). This highlighted a need for studies that focus on variables like cultural factors, language

proficiency, shyness and introversion that could mediate ESL learners' participation style in face-to-face and online discussions.

According to Jurin, Roush and Danter (2010), personality and language proficiency do affect a learner's thinking, choices, actions and the way one communicates. For example, the extroverts who are more sociable and outspoken may learn a language easily since they are more willing to use the target language to socialise with others and are less afraid to make mistakes (Kow, 2012). On the contrary, introverts are argued to be less suited to language learning due to their inhibition which discourages them from taking risks in experiencing with the target language and hence affect the language learning process (Kow, 2012). Since differences among learners exists and must be catered to for effective education (Skinner, 1968), the influence of personality and language proficiency on learners' participation style in different discussion settings needs to be further investigated.

In this study, the type of personality focused on is the extroversion and introversion of ESL learners. Previous studies have found introverts to be better in channelling their ideas online (Hamat, 2008; Kamhi-Stein, 2000). For example, Whitworth (2009) postulated from his qualitative findings that learners who were timid can try out new linguistics forms better when they were online since the consequences of face-threatening acts usually did not exist or were drastically reduced. This is also supported by Jonassen (1994) who found that introverted learners produced more words in online discussions as they can take their time to respond. However, studies that have been conducted by researchers like Jonassen (1994) and Whitworth (2009) only analysed learners' production in discussion forums. No controlled examination was carried out to compare face-to-face with online settings. The conclusion made is thus less reliable and a controlled experiment which compares face-to-face and online discussions will provide more reliable findings of how the different types of learners behave in different discussion settings.

Apart from that, learners' language proficiency has also been found to impact on their language production in online discussions (Arslanyilmaz, 2012). Learners who had lower language proficiency were found to suffer a significantly higher level of language anxiety while learners with better language proficiency were more motivated and unembarrassed to use the target language (Macintyre, 1995). Since language proficiency and language anxiety are negatively correlated, the level of learner's language proficiency can impact their performance and learning process in a discussion. Thus, investigations on the way language proficiency may affect the quality and quantity of communication among learners is crucial in investigating what contributes to a conducive ESL learning process.

Currently, not much has been conducted on how the potential benefits of online discussions can work out especially with ESL learners of different personalities and language proficiency (Sharpe & Benfield, 2005). Moreover, a number of studies which compared the discourse of ESL learners in online and face-to-face discussions are deemed anecdotal (Fitze, 2006). These studies rarely involve the use of controlled versus experimental groups (Roberts, 2004) and are found to be not comprehensive enough to include individual differences amongst ESL learners. Thus, in the investigation of learners' performance in different discussion settings, there is a need for empirical research using controlled experimental groups in an ESL classroom that take into account the different personalities and language proficiency of learners. In line with that, it is therefore the aim of this research to reveal the potential

benefits that can be brought about by different discussion settings and the use of different discussion environments for different types of leaners.

With an understanding of learners' participation style in different discussion settings, language instructors will have better ideas in finding ways to increase learners' active involvement and communication skills. In view of the reasons mentioned, the question that this research intends to answer relates to: What type of participation style is shown by ESL learners with different personality types (introverts and extroverts) and language proficiency levels (high-intermediate and low-intermediate) in face-to-face and synchronous online discussions?

The independent variables of this investigation are the medium of discussion and the ESL learners' characteristics (personality – extroverts or introverts; language proficiency – high-intermediate or low-intermediate). The discussion environments investigated in this study are online and face-to-face settings while the personality of the learners refers to extroversion or introversion. The dependent variables in this study are learners' participation style in different discussion settings. The other variables involving the learners such as age, gender, nationalities, group size, computer and keyboard skills were controlled. The null hypotheses for this study is: There is no significant difference in the participation style of learners who have different personality types (introverts and extroverts) and language proficiency levels (high-intermediate and low-intermediate) in face-to-face and online discussions.

Material and Methods

Setting

This study was carried out in a high school in an urban setting for a month. The venue of the online discussions was the school's computer laboratory while the face-to-face discussions were held at a meeting room. The face-to-face discussions in this study were video recorded. Two video cameras were used to capture a better view of the learners' behaviours and interactions. One of the video cameras was used to focus on the front part of the room while the other was used to record the participants who were sitting at the back. Before videotaping, the researcher assured the learners that the recording is solely for research purposes and will not be revealed. The synchronous online discussions were conducted online at the website *Learning English in an Interactive Way*; a web-based discussion board forum. All the exchanges in forum-motion.com and the senders' information as well as the order of the sent messages were saved into a word-processing file. In this study, the names of the participants were changed to numerical codes to ensure their anonymity.

Participants

Forty eight 16-year-old female ESL learners who were familiar with the use of the Internet were chosen to participate in this study. Their participation in this research was on a voluntary basis and consent letters were signed by the learners, the school representative and their parents or legal guardians.

The selected participants were divided into two groups of 24. Both experimental groups were balanced in the number of learners with different personality (12 introverts and 12 extroverts)

and language proficiency (12 high-intermediate and 12 low-intermediate). More specifically, the composition of each group was as follows:

- 6 high-intermediate learners with an extroverted personality
- 6 high-intermediate learners with an introverted personality
- 6 low-intermediate learners with an extroverted personality
- 6 low-intermediate learners with an introverted personality
-

To determine the personality of the students in this study, the participants answered an instrument developed by Oxford (1993) *Style Analysis Survey (SAS): Assessing Your Own Learning and Working Styles*. The dimension which assessed extroversion and introversion (Activity 2) was also found to be significant and reliable with a reading of 0.70 based on the Cronbach's alpha criterion (Psaltou-Joycey & Kantaridou, 2011). This instrument was also chosen because it was more related to language learning than other instruments (Cohen & Dörnyei, 2002). From the scores gathered from over 200 students, those with the most extreme extroversion or introversion scores were selected as participants. The selection of participants was also matched with teacher's observation of the students for six months before the experiment was carried out. The language proficiency of the participants was determined from their scores in the mid-year examination and a school-based oral assessment.

Teacher/Researcher

Only one ESL teacher who was also the researcher of this study was involved in facilitating the online discussion to avoid discrepancy in facilitation styles and to reduce the threat to internal validity (Fitze, 2006). Since the focus of this study is the students, the teacher/researcher only restated the topic and questions in the beginning of the discussions, and summarised to close the discussions. The teacher only interrupted the discussions when necessary and refrained from giving suggestions, thoughts or examples related to the topic. This was done to maintain the researcher's role in the discussions which was to read the discussion questions, observe learner interaction and signal the ending of a discussion.

Procedure

A day before the experiment began, an introductory session was held to introduce face-to-face and online discussions to the selected 48 participants so that they can be familiar with the system and participate effectively. In this introductory session, students registered themselves at the website which supported the online discussions and learned the way to sign in and sign out. They were also given time to practise how to send and receive messages in an online discussion setting. The learners were told of their roles during the experiment and were informed of the aim of the research and the schedule for discussions. The participation of the two matched-samples groups in different discussion settings was scheduled as the table below:

Table 1. Schedule for discussions

	Online	Face-to-face
Discussion 1 (Week 1)	Group A	Group B
Discussion 2 (Week 2)	Group B	Group A
Discussion 3 (Week 3)	Group A	Group B
Discussion 4 (Week 4)	Group B	Group A

As shown in Table 1, four observations were carried out over a month with the two groups of learners alternating weekly from the online setting to the face-to-face mode. Each group participated in two online discussions and two face-to-face discussions. Similar to Fitze's study (2006), all discussions lasted for 20 minutes. Both the face-to-face and online discussions consisted of topic-oriented discussions on topics (Appendix A) which were of interest to the teenagers and appropriate for their cognition level.

After gathering the data from the experiment, the videotaped face-to-face discussions were transcribed by the researcher and cross-checked by two selected participants. The transcriptions of both online and face-to-face discussions were transferred to a word-processing file for further analysis. The data from the quasi-experiment were then analysed using the SPSS software to observe for any relationship between the personality and language proficiency of the participants and their discourse in face-to-face and online discussions.

In this study, the findings were triangulated using different instruments. The main instrument was the quasi-experiment which involved two face-to-face and two online discussions. The quantitative data from the experiment were supported by the qualitative data which were gathered from the researcher's observation during the discussions, a survey on the learners' views of face-to-face and online discussions (please refer to Appendix B) and an online feedback session which was held after the experiment. The questions asked in the online feedback session were:

> *You have experienced discussions through F2F and online, what is your comment on the two different discussion settings? Which one do you prefer and why? Any suggestions to improve?*

Data analysis

The data collected from the experiment and the survey was analysed in a quantitative manner. Firstly, the number of words produced by each student was calculated to obtain the participation percentage per student. Then, the number of words written by each student during each discussion setting was used to calculate the gini coefficients of inequality (Appendix C) for each type of discussion. In this study, the gini coefficients were obtained through the website *Free Statistics and Forecasting Software* (Wessa, 2012). After obtaining the gini coefficients for the different groups of learners in different discussion environments, a paired-samples t-test on the totals for the different groups and discussion condition was run and compared using the IBM SPSS statistics 20 software.

The researcher's observation of the discussion process, the participants' responses during the experiment and their comments in the survey and online feedback session were compared and analysed with the aim of finding common themes about the ESL learners' participation styles and use of language; specifically lexical complexity and interactive competence in different discussion settings. To that end, the constant comparative and inductive method of analysis in grounded theory was used. A second rater was employed to identify the categories and subcategories for the qualitative analysis. The inter-reliability or the percent of agreement between the raters was 91%.

Results and discussion

In revealing the findings of this research, the quantitative data gathered from the quasi-experiment are firstly reported and then supported by the qualitative findings from the observation, survey and online feedback sessions. The gini coefficients obtained for participation in the two types of discussions are presented in Table 2. Groups are indicated in parentheses.

Table 2. Comparison of equity of participation across discussion conditions

Discussion	Gini Coefficients	
	Online	**Face-to-face**
1	0.45 (Group A)	0.79 (Group B)
2	0.48 (Group B)	0.84 (Group A)
3	0.52 (Group A)	0.86 (Group B)
4	0.35 (Group B)	0.87 (Group A)
Mean	0.45	0.84
Standard deviation	0.07	0.04

The paired-samples t-test from the IBM SPSS Statistics 20 software revealed a statistically significant difference in gini scores across discussion settings, t (3) = 8.83, p < 0.01 (two-tailed). The mean difference was 0.39 with a 95% confidence interval ranging from 0.25 to 0.53. The eta squared statistics (.97) indicated a large magnitude in the difference of the ESL learners' participation in face-to-face and online discussions. This suggests that, participation in the online discussions ($M = 0.45$, $SD = 0.07$) was more equally distributed among the students, during the face-to-face discussions ($M = 0.84$, $SD = 0.04$), a small number of students tended to dominate the discussion.

The influence of learners' personality and language proficiency in affecting their participation style in different discussion environments was examined. Table 3 shows the gini coefficients obtained in each discussion based on the combined variables of personality and language proficiency. The groups are indicated in parenthesis.

Table 3. Comparison of equity of participation across discussion settings for ESL learners with different personalities and language proficiency

Discussion	Gini Coefficients							
	Online				Face-to-face			
	Introverts		*Extroverts*		*Introverts*		*Extroverts*	
	High	*Low*	*High*	*Low*	*High*	*Low*	*High*	*Low*
1	0.32 (A)	0.38 (A)	0.40 (A)	0.59 (A)	0.80 (B)	0.74 (B)	0.65 (B)	0.63 (B)
2	0.65 (B)	0.37 (B)	0.31 (B)	0.28 (B)	0.83 (A)	0.83 (A)	0.41 (A)	- (A)
3	0.31 (A)	0.54 (A)	0.46 (A)	0.47 (A)	0.82 (B)	0.78 (B)	0.74 (B)	0.65 (B)
4	0.29 (B)	0.34 (B)	0.16 (B)	0.28 (B)	0.83 (A)	- (A)	0.52 (A)	0.83 (A)
Mean	0.39	0.41	0.33	0.40	0.82	0.78	0.58	0.70
Standard deviation	0.17	0.09	0.13	0.15	0.01	0.05	0.14	0.11

Note: Due to space constraints, the categories for high-intermediate and low-intermediate ESL learners are shortened to 'high' and 'low' respectively

The group of extroverts with a high-intermediate language proficiency showed the most equal participation in the online discussion setting ($M = 0.33$, $SD = 0.13$). Their participation was also the most balanced during the face-to-face discussions when compared to the other groups ($M = 0.58$, $SD = 0.14$). This suggests that there were more extroverts with high-intermediate language proficiency who participated more actively in both face-to-face and online discussions. However, the gini coefficients of the extroverts with a high-intermediate language proficiency showed statistically significant difference when they were in online ($M = 0.33$, $SD = 0.13$) and face-to-face discussion settings ($M = 0.58$, $SD = 0.14$), $t(3) = 4.63$, p < 0.05 (two-tailed) in which the mean difference was 0.25 with a 95% confidence interval ranging from 0.08 to 0.42. The eta squared statistic (.88) indicated a large effect size. This suggests that there were a higher number of extroverts with a high-intermediate language proficiency contributing more actively in online discussions than in face-to-face discussions. However, it is interesting to note that the high-intermediate extroverted learners revealed that they hated their dominance in face-to-face discussions as can be observed in the excerpt of the following discussion transcript:

> *P11, Grp A*   *Other opinion(s)?*
> *P6, Grp A*   *I don't agree too. Now i hate my voice.*
> *P2, Grp A*   *Yea.. kind of. I hate mine too*

In contrast to the extroverts with a high-intermediate language proficiency, the extroverts with a low-intermediate language proficiency did not show statistically significant difference for their participation style across discussion settings, $t(2) = 1.70$, p > 0.05 (two-tailed). Despite that, the extroverts with low-intermediate language proficiency showed more balanced participation when they were discussing online ($M = 0.40$, $SD = 0.15$) than face-to-face ($M = 0.70$, $SD = 0.11$).

Interestingly, the learners who belonged to the extroverts and low-intermediate proficiency group felt shy to give their opinions in face-to-face settings despite their extroverted personality. The reason may be their lower level of English language proficiency. They felt

more comfortable and confident in front of the computers. Talking to a group of people in face-to-face discussions was daunting for them. This attitude was found to differ greatly from the extroverted learners with a high-intermediate proficiency who savoured face-to-face interactions. The responses below by participants 15 and 17 (Group B) exemplified the lack of confidence among the extroverts with a low-intermediate language proficiency when they were involved in large group face-to-face discussions:

well..because i have low self-confidence so i think online discussion is more working for me... when its f2f i just don't know what to say and i'll just stay silent. and i'm a fast-typist so it is easier..

(Participant 15, Group B)

Despite that, there were also extroverts who were unperturbed by their language proficiency. For instance,

Awe, for me F2F is more worked compared online discussions. Well, in order to be fluent in English. We should be brave in front of crowd, right? It doesn't matter if we pronounce some other words which is quite bizarre wrongly, at least we're trying to be brave as well & not COWARD yeahhh!

(Participant 14, Group A)

Similar to the extroverts with a high-intermediate language proficiency, the introverts with a high-intermediate language proficiency also showed more balanced participation when they were discussing online ($M = 0.39$, $SD = 0.17$) than face-to-face ($M = 0.82$, $SD = 0.01$), $t(3) = 5.23$, $p < 0.05$ (two-tailed). The magnitude of the differences in the means (mean difference = 0.43, 95% Cl: 0.17 to 0.69) was - large (eta squared = 0.90). This means that there was a higher number of introverts with a high-intermediate language proficiency contributing online and thus showing more balanced participation in the online setting. It is also interesting to note that the introverts with a high-intermediate language proficiency (followed by the introverts with low-intermediate language proficiency) showed the most imbalanced participation style in face-to-face discussions. This may indicate that there were more introverted learners who were afraid to speak up when they were in a face-to-face environment. Even though students can produce words faster in face-to-face discussions, the turn taking process and the "threatening" aspect may have hindered participation from the introverts and as a result, the discussions were dominated by the extroverts as observed in Simpson (2005) and Smith (2003).

In the survey and online feedback sessions, about 75% of the introverts with a high-intermediate language proficiency mentioned their personality as one of the inhibiting factors for them to speak confidently in face-to-face discussions. As an example:

I think, I would choose online because I can't talk in front of people. I don't have the confident in me. But, one day I promise I will talk in front of people fluently, but not now. Face to face is good, but I prefer speak my mind through typing.

(Participant 12, Group A)

The introverts with a high-intermediate language proficiency also mentioned the influence of the environment on their production of words in the survey given. For instance, 2 participants

from Group B felt that they could speak freely without interruption in the online setting and need not worry about other people's reactions. The messages that they wanted to share can also be conveyed to everyone easily and more responses can be gathered from people with different nationalities and religions (Respondent 7, Group B). While in the face-to-face discussions, they could not "speak their minds in front of many people and would need to rethink about their messages many times before saying it" (Participant 8, Group B).

Even though the introverted ESL learners preferred online discussions which matched with their personalities, they also recognised the importance of face-to-face discussions. For instance, Participant 9 from Group A preferred online discussions but she felt that face-to-face discussions would be more beneficial in building her level of confidence to speak in front of people even though it would be quite hard for her. The following excerpt from Participant 12 (Group B) in the online feedback session accentuates this idea.

i prefer online discussion because i'm a shy person. but f2f is good because we can improve our speaking and can build confidence.

i think f2f can improve our communication skill. i'm a shy girl and for me to improve this, i have to practise more because practice makes perfect.

Similar responses have also been given by learners from the other groups. Thus, even though the introverted high-intermediate, introverted low-intermediate and extroverted low-intermediate learners felt more confident in online discussions, they acknowledged the importance of face-to-face discussions and hoped to improve their performance when discussing face-to-face.

Compared to the other groups, the introverts with low-intermediate language proficiency showed the least balanced participation in online discussions ($M = 0.41$, $SD = 0.09$). This is followed by the extroverts with low-intermediate language proficiency ($M = 0.40$, $SD = 0.15$). Their language proficiency may have played a role in inhibiting these learners from participating as actively as their peers with a higher language proficiency in online discussions. Nonetheless, the introverts with a low-intermediate language proficiency still showed more balanced participation when they were in online discussions ($M = 0.41$, $SD = 0.09$) than in face-to-face discussions ($M = 0.78$, $SD = 0.05$), $t(3) = 5.53$, $p < 0.05$ (two-tailed). The mean difference was 0.37 with a 95% confidence interval ranging from 0.08 to 0.62 and the eta squared statistic (.94) indicated a large effect size. This means that there were more introverts with a low-intermediate language proficiency contributing online and thus a more balanced participation in the online setting was observed. The findings also imply that the language proficiency of the learners may have a bigger influence than their personality in affecting the learners' performance during online discussions.

The lack of confidence is believed to be one of the reasons learners contributed less words in face-to-face discussions. Learners who belonged to the introverts and lower language proficiency group related to this more than the others; nine out of twelve learners expressed this explicitly in the survey and online feedback session. These students mentioned that they felt nervous, awkward and scared when communicating face-to-face in front of a large group. One of the participants (Participant 20, Group A) also explained that she felt shy to speak in face-to-face discussions because she felt her pronunciation was less accurate. In such cases,

when the learners' anxiety increased, their affective filter impeded their performance in the discussions (Krashen, 1981). Thus, they contributed fewer words in face-to-face discussions. In the survey, they have also suggested smaller groups for face-to-face discussions so that they can be more confident to speak using the target language

More than half of the introverted learners who had low-intermediate English language proficiency reported that they felt more confident in online discussions. The reasons given were they did not see the audience's face and that the online discussions enabled all the participants including the introverts to speak. Therefore, they felt that they can express their ideas better and clearer when they were typing. Moreover, online discussions did not require instant feedback and the learners can ponder longer before giving their response.

From the learners' response, it is not surprising that eleven out of twelve (90%) of the introverted learners with lower language proficiency indicated their preference for online discussions. This is followed by 83% of the introverted learners with better English language proficiency and 82% of the extroverted learners with a lower language proficiency.

Overall, a more active and balanced participation style was observed among the participants in the online discussions. One third of the participants in this study even mentioned explicitly that discussing issues online was a fun and interesting way to learn the English language. This is because they felt more relaxed and more comfortable as they were familiar and fond of using computers and the Internet. In the survey and online feedback sessions, a majority of the learners also expressed their preferences for online discussions as they can share more ideas, receive more feedback and better understand others' opinions. This is because they did not need to wait for their turn and they can give as many opinions as they would like to anytime and anywhere without anyone stopping them. This positive attitude towards online discussions was also seen in a few other studies (e.g. Vonderwall, Liang & Alderman, 2007; Warschauer, 1996; Wang & Woo, 2007).

Conclusion

In conclusion, the online discussion setting can encourage a more balanced and active participation among the participants. This is especially beneficial to the learners in subordinated positions such as the introverted and the less proficient learners. In this study, these learners were found to feel more positive about the discussion condition and their anxiety level was lower than in face-to-face discussions. Thus, they were believed to be more receptive to comprehensible input in online discussions and could ultimately become more successful ESL learners (Krashen, 1981; Warschauer, 1996).

This study also found that the medium played a role in influencing the messages of certain groups of learners more than the others. The empirical evidence from this experimental study also pointed out the need to explore ESL learners' personality and language proficiency in their learning of a second language in different discussion settings. Thus, a personality test is recommended in students' placement test as it affects the use of teaching and learning strategies. In addition, this study also shows that the online environment can be a good alternative platform for discussions to be held.

Although an online setting is beneficial for language learning, it should not be the only medium for discussions. This is because face-to-face discussions are crucial for real world needs. Measures need to be taken so that the less proficient and introverted learners can also be more active in face-to-face discussions. More guidance is needed to help these learners to feel more comfortable in speaking up during discussions. Online discussions can be introduced to these learners before face-to-face discussions since they are deemed to be comfortable by the introverted and less proficient participants in this study. More preparation time and small groupings are also recommended for the introverted and less proficient learners. When these learners feel more confident with speaking the language in front of their friends, they would be more ready to join in large group discussions. On the other hand, a mix of both face-to-face and online discussions can be held for the extroverted and more proficient ESL learners. In a mixed-ability class, they can also be given the role of a mentor whose main task is to listen and to provide feedback to the less proficient and introverted learners. However, the mentors need to be trained so that their feedback is constructive rather than destructive.

It should be highlighted at this stage that only females were included as participants in this study. In addition, the level of language proficiency was confined to the high-intermediate and low-intermediate levels. Future research could thus investigate the discourse of males from the advanced, high-intermediate, low-intermediate and low proficiency groups. In addition, there are also other individual differences that can be studied such as motivation, aptitude and thinking style. Lastly, smaller groups of students in face-to-face and online discussions could also be created to provide further insights.

References

Arslanyilmaz, A. (2012). An online task-based language learning environment: Is it better for advanced- or intermediate-level second language learners? *The Turkish Online Journal of Educational Technology*, *11*(1), 20-35.

Cohen, A. D., & Dörnyei, Z. (2002). Focus on the language learner: Motivation, styles, and strategies. In N. Schmitt (Ed.), *An introduction to applied linguistics* (pp. 170–190). London: Arnold.

Fitze, M. (2006). Discourse and participation in ESL face-to-face and written electronic conferences. *Language Learning & Technology, 10*(1)*,* 67-86.

Hamat, A. (2008). Web technologies for language learning and implications for the design of CMS for language instruction. *World Academy of Science, Engineering and Technology, 39,* 61-65.

Jonassen, D. H. (1994). *Technology as cognitive tools: Learners as designers.* IT Forum Paper #1. Retrieved May 30, 2010, from http://it.coe.uga.edu/itforum/paper1/paper1.html

Jurin, R. R., Roush, D. & Danter, J. (2010). Environmental communication: Skills and principles for natural resource managers, scientists and engineers (2nd ed.). New York: Springer.

Kamhi-Stein, L. (2000). Adapting US-based TESOL education to meet the needs of nonnative English speakers. *TESOL Journal, 9*(3), 10–14.

Kow, Y.C. (2012). Putting second language acquisition theories into practice: A case study. In Zuraidah Mohd Don (Ed.), *English in multicultural Malaysia: Pedagogy and applied research* (pp. 15–30). Kuala Lumpur: University of Malaya Press.

Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford: Pergamon Press.

Lapadat, J. C. (2002). Written interaction: A key component in online learning. Journal of Computer-Mediated Communication, *7*(4), 4. Retrieved June 10, 2014, from http://jcmc.indiana.edu/vol7/issue4/lapadat.html

Lee, L. (2009). Exploring native and non-native interactive discourse in text-based chat beyond classroom settings. In L.B. Abraham & L. Williams (Eds.), *Electronic discourse in language learning and language teaching* (pp. 11-41). Amsterdam: John Benjamins Publishing Company.

Lever-Duffy, J. & McDonald, J.B. (2011). *Teaching and learning with technology* (4th ed.). MA: Pearson.

Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. Ritchie & T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413 – 468). San Diego: Academic Press.

MacIntyre, P. D. (1995). How does anxiety affect second language Learning? A reply to Sparks and Ganschow. *The Modern Language Journal, 79,* 91–99.

Oxford, R. L. (1993). Style analysis survey (SAS): Assessing your own learning and working styles. In J. M. Reid (Ed.), *Learning styles in the ESL/EFL classroom* (pp. 208-215). Boston: Heinle and Heinle.

Oxford, R. L. (2011). Strategies for learning a second or foreign language. *Language Teaching, 44*(2), 167-180.

Psaltou-Joycey, A. & Kantaridou, Z. (2011). Major, minor and negative learning style preferences of university students. *System, 39*(1), 103-112.

Roberts, R. (2004). Computer-mediated communication patterns in online learning environments. Unpublished Doctoral Dissertation, University of San Francisco, USA.

Sharpe, R., & Benfield, G. (2005). The student experience of e-learning in higher education: A review of the literature. Brookes eJournal of Learning and Teaching, 3(1), 1-9.

Simpson, J. (2005). Conversational floors in synchronous text-based CMC discourse. *Discourse Studies, 7*(3), 337-361.

Skinner, B.F. (1968). *The technology of teaching*. New York: Appleton Century Croft.

Smith, D. B. (2003). Computer-mediated negotiated interaction: An expanded model. *The Modern Language Journal, 87*, 38-57.

Sotillo, S. M. (2009). Learner noticing, negative feedback, and uptake in synchronous computer-mediated environments. In L.B. Abraham & L. Williams (Eds.). *Electronic discourse in language learning and language teaching* (pp. 87-110). Amsterdam: John Benjamins Publishing Company.

Vonderwall, S., Liang, X., & Alderman, K. (2007). Asynchronous discussions and assessment in online learning. *Journal of Research on Technology in Education, 39*(3), 309-328.

Wang, Q. & Woo, H.L. (2007). Comparing asynchronous online discussions and face-to-face discussions in a classroom setting. *British Journal of Educational Technology, 38*(2), 272-286.

Warschauer, M. (1996). Comparing Face-to-face and electronic communication in the second language classroom. *CALICO Journal*, *13*(2), 7-26.

Wessa, P. (2012), Free Statistics Software, Office for Research Development and Education, version 1.1.23-r7, URL http://www.wessa.net/

Whitworth, K. F. (2009). The discussion forum as a locus for developing L2 pragmatic awareness. In L.B. Abraham & L. Williams (Eds.), *Electronic discourse in language learning and language teaching* (pp. 11-41). Amsterdam: John Benjamins Publishing Company.