# Investigating L2 learners' sociopragmatic development
# in online asynchronous discussion

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## Abstract

Despite a burgeoning research of pragmatics in second language learning, there has been insufficient work on the relations among social variables and speech acts in an online learning context. This study examines the sociopragmatic development of L2 learners through online asynchronous discussion. Participants were 18 undergraduate students who enrolled in a compulsory English course. The subjects took part in a web-based collaborative discussion for four weeks. In the form of computer-mediated discourse, the learners' speech acts were analysed statistically. Social variables which are gender and familiarity between participants were identified and discussed. The descriptive findings indicate that social variables were related to certain online speech acts. Regression analysis however shows that gender and familiarity were not significant predictors of L2 learners' online utterances. It was found that more proficient L2 learners assisted less proficient peers through active participation and employment of myriad speech acts. Results also suggest that the use of specific utterances affects a learner's role in the organisational hierarchy of online discussion. This study suggests pedagogical implications for the L2 learners' acquisition of sociopragmatic competence through online peer collaboration.


**Keywords:** online asynchronous discussion, sociopragmatic competence, online speech acts, second language learning

## Introduction

Online asynchronous discussion has been widely used in university classrooms. The major advantage of online asynchronous discussion is that students can pose their comments at almost anytime and anywhere. It provides students more time to reflect, understand, and craft their contributions and responses (Freiermuth & Jarrell, 2006; Hall, 2011; Kuhn, Goh, Iordanou, & Shaenfield, 2008; Schellens &Valcke, 2005). Numerous studies explored the effectiveness of online asynchronous discussion in second language learning (Gorjian, Moosavinia, Kavari, Asgari, & Hydarei, 2011; Thorne, Black, & Sykes, 2009; Ware, 2004). However, there is insufficient empirical evidence about the social barriers to second language online discourse interaction. Past research mainly focused on L2 learners' participation patterns in online discussions and their perception about the role of online environment in L2 learning (Heins, Duensing, Stickler, & Batstone, 2007; Kabilan, Ahmad, & Abidin, 2010; Kim, 2011).

Research showed abundant evidence on psychological and sociocultural factors influencing learner participation in online discussion for various disciplines such as business management and psychology (Dennen, 2005; Nor, Hamat, & Embi, 2012; Sun, Tsai, Finger, Chen, & Yeh, 2008). Little attention is given to the relationship between social factors and speech act strategies which affect L2 learners' online asynchronous discourse interaction. This paper argues that L2 learners' online discourse interaction is transactional. In successful online interaction, the social variables and online discourse are interdependent as the learners apply linguistic, social and pragmatic knowledge simultaneously. Investigating L2 learners' sociopragmatic development in an online learning context could shed light on the existing theories of L2 pragmatics.


## Literature review

Over recent decades, researchers have developed a large amount of literature on various issues of second language learning in online environments. The literature review delineates previous research findings, gaps of current literature and a theoretical framework related to this research.

### *Role of L2 sociopragmatic competence in online asynchronous discussion*
Several studies yielded findings on L2 learners' sociopragmatic competence. Earlier research by Harlow (1990) investigated the influence of the social variables of sex, age, and familiarity on requesting, thanking, and apologising behaviours of L2 French learners. The results revealed that different social variables seem to influence the use of certain linguistic behaviours. For instance, familiarity between the speakers affects the use of requesting speech act. When addressing an unfamiliar person, especially an older person, a preliminary attention-getter like pardon, is used to display a higher level of politeness. Savignon (1997, p. 41) defined sociopragmatic competence as "understanding social rules of language use, the roles of the participants, the shared information, and the function of the interaction". In online asynchronous discussion, sociopragmatic competence is crucial as L2 learners need to interact with each other using speech acts and social rules.

Recent study by Abrams (2008) examined L2 German learners' sociopragmatic features of computer-mediated exchanges, which comprised the opening and closing sequences, patterns of topic assignment, and maintenance by participants. It was proposed that computer-mediated communities could assist L2 learners to recognise the online interactional patterns and adapt their discourse competently. However, the use of online synchronous interaction in Abram's research may not provide comprehensive description of L2 learners' online sociopragmatic competence development. Online synchronous discussion (i.e., instant messaging) demands learners provide immediate feedback and simultaneously monitor and participate in multiple concurrent discussion threads. This might cause cognitive challenges in the learners and disrupt their effort of extracting prior knowledge to compose responses (Jeong & Frazier, 2008). Learners need a period of time to interpret some highly challenging arguments and to decide whether to support or rebut their peer's statements (Beckett, Amaro-Jiménez, & Beckett, 2010). This study aims to provide more conclusive evidence on the L2 learners' application of

linguistic, social and pragmatic knowledge in online communication in the field of asynchronous discussion.

### *Factors influencing L2 learners' online asynchronous interaction*
There has been an increasing interest in how cultural variables are related to L2 learners' online communication. Lam (2004) suggested that L2 learners gain "a new identity through language" (p. 45) and "feel braver in talking to people" (p. 51) through online discussion where online culture, code switching and informal language are practiced. Research by Zhao and McDougall (2005) discovered that the L2 learners responded positively toward online courses and adeptly solved cultural problems which occurred in online learning. The data may be inadequate to elucidate the effects of cultural variables on L2 online learning, as it was obtained from only the semi-structured interviews of six subjects. Cultural variables play a role in L2 online discussion, yet the factors affecting the L2 learners' online asynchronous interaction are complex. Social, pragmatic and linguistic variables, in particular, affect the L2 learners' development of sociopragmatic competence, a crucial ability of online communication. This study attempts to provide sufficient quantitative and qualitative data to investigate the relations among various variables influencing L2 learners' online sociopragmatic development.

L2 learners employ academic discourse and speech acts to communicate with their peers in online asynchronous discussion. The L2 learners' online peer interaction may be influenced by social variables such as gender and familiarity between speakers. According to Harlow (1990) and Larsen-Freeman (1997), interdependence exists among social variables and the use of linguistic knowledge in L2 communication context. Previous CALL studies have mostly centred on communities of practice among non-native English speakers (Kim, 2011; Matsuda, 2002) and intercultural communication (Montero-Fleta, Montesinos-López, Pérez-Sabater, & Turney, 2009; Zeiss & Isabelli-Garcia, 2005). There have been scarce findings on how the use of linguistic, social and pragmatic knowledge (i.e., the acquisition of sociopragmatic competence) affects the L2 learners' online discourse interaction.

Gender is often associated with linguistic behaviour in computer-mediated communication. According to Herring (2003), gender predicts specific online behaviours, with other controlled variables such as age, topic, and the synchronicity of the medium. For example, male linguistic behaviour often involves profanity, assertiveness and longer comments, while female online participants are associated with politeness, justification and short responses. Similar findings were yielded from recent research, suggesting gender and power differences may influence online learning (Prinsen, Volman, & Terwel, 2007; Thelwall, Wilkinson, & Uppal, 2010). It was found that males employed more authoritative language and negative responses, while females made explicit agreement and emotional comments (Guiller & Durndell, 2007). Despite the extensive CALL literature, gender and L2 online learning remain under-researched. This study will address the gap by investigating the correlation between gender and linguistic behaviour among L2 online learners.

### *Theoretical framework*
Since L2 classroom adopted computer-mediated language learning, numerous studies showed that online collaborative discussion provides an authentic context for L2 learners

to acquire communicative competence by using social rules of language use (Murphy, 2004; Schrire, 2006; Schwienhorst, 2003; Suthers, Vatrapu, Medina, Joseph, & Dwyer, 2008). Online discussion is learner-centred that L2 learners apply various skills to communicate with their peers, so it is important to address the dynamic learning process in which L2 sociopragmatic competence is being developed. Therefore, activity theory (Leontiev, 1978; Luria, 1973, 1979; Thorne, 1999) was applied to inform the theoretical framework of this study. Luria (1973) argued that human mind is a functional system formed by cultural artifacts, particularly language. Built on Vygosky's view that human social and mental activity is organised through culturally constructed artifacts, Leontiev (1978) proposed that activity is motivated either by a biological need or a culturally constructed need. The needs become motives that are only realised in specific goal-directed actions, under certain spatial and temporal conditions, and through relevant mediational means.

The present study used online asynchronous discussion where a group of L2 learners interacted with appropriate speech and social rules. The need to complete an academic task motivated the learners to engage in interactive online communicative activity. Leontiev's activity theory has informed the revocable nature of L2 learners' online communication. It was argued that "what appears to be the same actions can be linked to a different motive and thus constitute different activities" (Lantolf, 2000, p. 9). During the online discussion, learners may show different speech behaviour as each has a distinctive motive of learning. In a similar vein, Thorne (1999) reported that foreign language learner online communicative interaction is influenced by the internet mediation, creating speech behaviour that would probably not happen in face-to-face verbal communication. For instance, some learners' use crude language which was a trespass of the rules of face-to-face discussion seemed to be an acceptable cyber cultural practice. This echoes activity theory that the same task could result in contrasting motives and activities/behaviour.

Activity theory has underlied a substantial amount of L2 research, mostly focusing on classroom writing practice (Basturkmen & Lewis, 2002; Nelson & Kim, 2001; Zhu & Mitchell, 2012) and vocabulary learning (McCafferty, Roebuck, & Wayland, 2001). None applied activity theory in exploring the L2 learners' dynamic development of sociopragmatic competence in online asynchronous discussion. Many CALL studies on communicative competence are informed by other sociocultural theories such as Vygotsky's zone of proximal development theory and Schieffelin and Ochs's language socialisation theory. Grounded in activity theory, this study will provide insight into L2 learners' online speech behaviour and how it is affected by various linguistic, pragmatic and social variables.

The following research question was formulated to address the gaps in the existing literature of L2 online learners' sociopragmatic development:

1. How does gender affect the L2 learners' use of onlinespeech acts?
2. How does familiarity affect the L2 learners' use of online speech acts?
3. In what way do gender and familiarity between speakers predict the L2 learner's use of online speech act strategies?

**Method**

The purpose of this study was to investigate the relationship among gender, familiarity and speech act strategies in L2 learners' online interaction. The frequency of participants' online speech acts was measured with descriptive method. The relationship among social variables and participants' use of online utterances were examined quantitatively. Holmes's (2008) functions of speech were employed for analysing L2 learners' online speech behaviour qualitatively.

*Participants*

The participants were 18 undergraduate L2 learners from a Malaysian private university, ranging from 19 to 20 years old. 89% of them were Malaysian and 11% were of other ethnic origins. The participants consisted of 50% males and 50% females. The participants' English proficiency level was intermediate because they had fulfilled the entry requirement of degree programme, which was minimum credit for English subject in SPM, an equivalent of the 'O' levels at Malaysian secondary schools. In addition, English has been used as L2 among the students for oral and written communication, and the medium of instruction in university.

The participants were recruited from two classes of a compulsory business English course, class A and B. They were enrolled in different classes based on their major which is either accounting or business management. The participants attended the language classes at different time and venue, and had never worked together in any group projects. Participating in this online discussion was the first group assignment for the subjects who had just started the first semester of degree programme. The students were required to participate in an online discussion for four weeks to complete an argumentative writing coursework. The demographic data of the participants was presented in Table 1.

Table 1. Demographic data: participants in online discussion

| N = 18 | Age $\overline{X}$ = 19.5 | |
| --- | --- | --- |
| | Number | % |
| Gender | | |
| Male | 9 | 50 |
| Female | 9 | 50 |
| | | |
| Country of Origin | | |
| Malaysia | 16 | 89 |
| Indonesia | 1 | 5.5 |
| Uzbekistan | 1 | 5.5 |

*Online asynchronous discussion*

The online asynchronous discussion was an online collaborative learning tool that the participants employed to exchange ideas and resources anywhere and anytime. The online interaction took place in a computer-mediated wiki group which the students were

invited to join. In the wiki group, a discussion page was created for the argumentative topic. Guidelines of participating in the online discussion were provided explicitly in the front page of the wiki group. The students were asked to post their arguments about the topic regularly throughout four weeks before submitting the argumentative essay. Moreover, they were encouraged to share website links and articles related to their topic.

The instructor who gave the argumentative writing coursework interacted with the students in the online discussion. The purpose of the instructor's participation was to facilitate the online discussion and ensure the students post relevant arguments to the topic. The instructor did not initiate any discussion because the students were required to post their comments independently and collaborate with their peers to build strong arguments. However, comments would be given to the participants who asked for the instructor's feedback on their arguments. Compliments were also posted for some participants who shared useful ideas and resources.

*Data analysis*
The participants' online dialogic discourse was collected and coded using Holmes's (2008) functions of speech that applied to expressive, directive and referential (see Appendix 1). The written and spoken characteristics of online utterances were acknowledged during the discourse analysis. For instance, an online referential utterance could be conveyed in several complex sentences, written in academic and informal or IM (Instant Message) language; sometimes an online utterance might comprise only one or a few letters of IM language, such as "y" and "oic"; a number of utterances which expressed different functions were delivered one after another in a lengthy paragraph. Two different coders including the researcher were involved in the coding process. Through discussions, the coders compared the discourse analysis scoring, re-examined the discrepancies and reached mutual agreement on the quantity of utterances for each speech function.

Descriptive data analysis was applied to provide understanding into the influence of distinct social variable on online speech acts. Regression analysis was also conducted to investigate the relationship among social variables and online utterances. According to Coakes and Ong (2011), regression analysis is employed when independent variables (either continuous or categorical scale) are correlated with one another and with dependent variable (continuous scale only). In this research, gender and familiarity between speakers were identified as categorical variables, while online utterance was coded as continuous variable.

**Findings and discussion**

As this study involved small sample size (n < 30), the frequency of each speech act from the participants was calculated. To answer the first and second research questions, the descriptive data of gender, familiarity and online speech acts was discussed qualitatively. To answer the third research question, standard regression analysis was used to investigate the relationship between social variables and the L2 learners' use online speech acts. The variance (R Square), F-value and t-values were examined to find out whether gender and familiarity were significant predictors of L2 online speech acts.

*Influence of gender on online speech acts*

Figure 1 and 2 present the frequency of male and female participants' online speech acts. The online speech acts were categorised into expressive, directive and referential.The descriptive data analysis shows that 56% of the female participants and 33% of the male participants applied expressive utterances in the online discussion. The quantity of female participants' expressive utterances was 26% higher than male participants'. Below are examples of the female participants' expressive utterances:

(Y) (Participant 12)

Ohhhhhhhhhhhhhhh, thankss :D (Participant 12)

This is goooood (Participant 12)

OK ;D feel more confident, THANKYOU! (Participant 13)

Haha it is kind of useful, thanks! (Participant 15)

This indicates that gender was related to the use of expressive speech acts in asynchronous online learning. These findings confirm the results from past studies (Burrell, Mabry, & Allen, 2010; Guiller & Durndell, 2006, 2007) that there were gender differences in asynchronous online communication. A large number of female participants seemed to express their feelings through online messages, and practice politeness in their online conversation. In contrast, fewer male participants were expressive in the discussion, suggesting the majority preferred to use other speech acts to deliver their opinions.

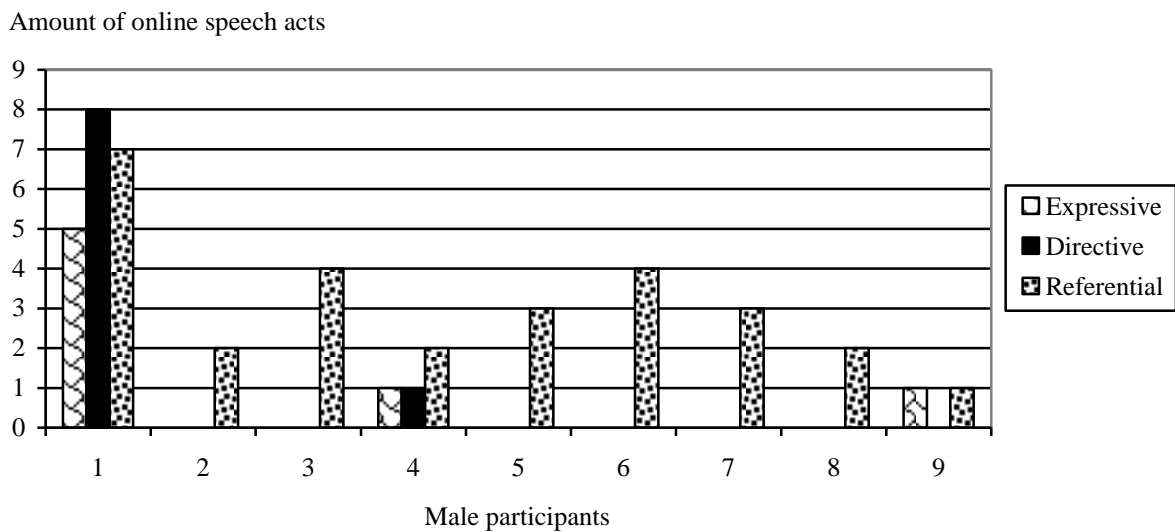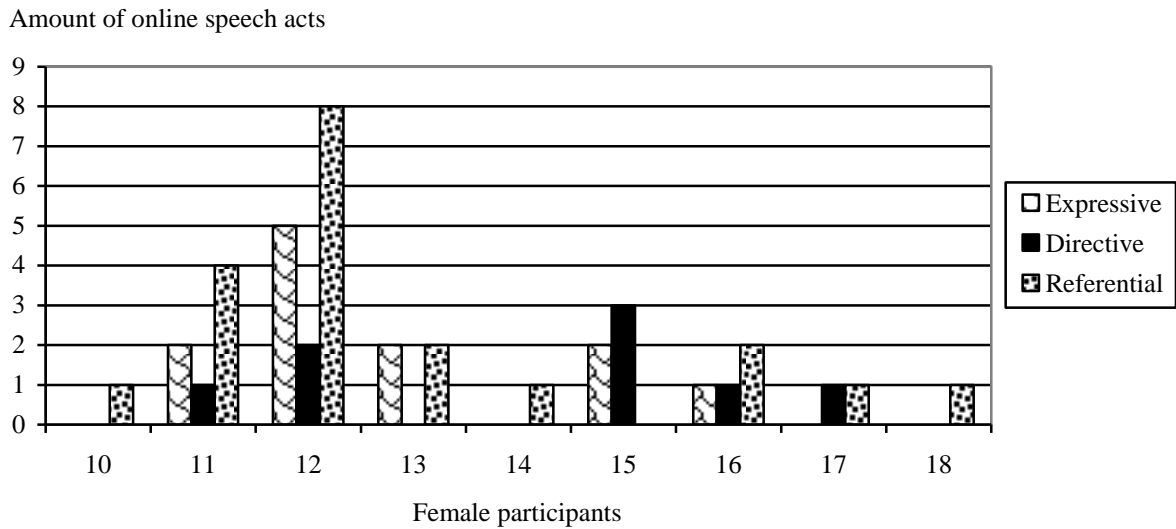Figure 1. Frequency of male participants' online speech acts



Amount of online speech acts

Figure 2. Frequency of female participants' online speech acts

Amount of online speech acts



Female participants

The male and female participants' frequency of directive utterances was almost similar. Nonetheless, there were differences in the types of directives being used among male and female participants. Figure 1 shows only 22% of the male participants used directive utterances. Participant 1, in particular, used the highest amount of directive utterances (i.e., 47%) among the male and female participants. Directive utterances in asynchronous online discussion encompass imperatives, interrogatives and declaratives (see Appendix 1). The directive utterances of Participant 1 displayed 63% of declaratives and 37% of imperatives.  Examples are listed below:

for green buildings in malaysia, u guys can have a look at this report. (Declarative)

i think it would be better if you have example of companies implementing such green practices where its productivity had increase. (Declarative)

try to google about solar panels on buildings. i've seen a lot. (Imperative)

Basically i just key in some key points in google. u have to do more research. (Imperative)

Directive utterances were more widely used among the female participants. Figure 2 reveals that 56% of the female participants applied directive utterances in the online discussion. Among the female participants, Participant 15 used the highest amount of directive utterances (i.e., 38%) which includes interrogative with modal verb and declaratives. The following is an example of interrogative with modal verb:

Maybe can sounds more clearly? (Interrogative with modal verb)

Participant 12 who applied 25% of directive utterances among the female participants used an interrogative with wh-question:

Dan, what abt ur counter arg? (Interrogative with wh-question)

The use of directive utterances seemed to affect a learner's role in the organisational hierarchy of online discussion. Participant 1 who used most directive utterances seemed to become the leader in the online discussion. His directive utterances were welcomed by other participants' expressive utterances such as "(Y)" and "thanks". The evidence also suggests that more proficient participants used directive utterances to assist less proficient peers in the asynchronous online discussion. Using directives, Participant 1, 12 and 15 helped their peers revise the arguments and add other relevant information. The nearly equal distribution of male and female participants' directive utterances indicates that gender does not predict the use of directives in the online asynchronous discussion. This is in line with Herring (2010)'s findings that both men and women can exert power through certain linguistic behaviours in online conversation.

As illustrated in Figure 1 and 2, all of the male participants and 89% of the female participants used referential utterances while discussing online. The analysis shows that the male participants used 58% of referential utterances, a slightly higher amount compared to the female participants'. These results confirm the findings of Kapidzic and Herring (2011) which argued that both genders contributed to subjective assertions (claims) about equally. However, it refutes Burrell, Marbry and Allen's (2010)'s work that there were differences in the stylistic features of male and female participants during online asynchronous discussion. In this study, little gender difference was discovered in the participants' referential speech acts. Both male and female participants used facts to support their claims or seek help from their peers. Below are the examples of male and female participants' referential utterances:

PJ trade center is a green building, check out some architecture firms like "Idesign" for some green buildings in Malaysia. In Australia, carbon emmission tax is established. There is a legislation in Environmental Quality Act 1974(Law of Malaysia) <http://www.agc.gov.my/Akta/Vol.%203/Act%20127.pdf>that stated> "Requirement and approval of plans" (Participant 3, male)

i read through this link and wondering whether i can use this link and one of my topic sentence. it is mainly about what government is doing to encourage domestic businesses to use green technology. one of the point stated is about SUBSIDIARY. on my draft now, one of my topic sentence is as stated below: Green practices will definitely success with the supports of government in term of subsidiary. anyone here have any idea is my point valid for this argument? (Participant 5, male)

I talk about the laws and legislation in one of my topic sentence~ here the link~ i think is quite useful for this point~http://www.doe.gov.my/v2/files/legislation/a0127.pdf this if the law of malaysia, http://www.china.org.cn/english/environment/34356.htm and this is china's law (Participant 16, female)

Urm it gets a little confusing here because we need to somehow relate to buildings, yes? But I have a point here to show that I agree that green practices will succeed because the sales and production of hybrid car is increasing. (..Meanwhile the Prius' global performance shows a strong 36% jump in sales to 438,270 in the January-October period, according to the latest available data from Toyota. Its domestic sales accounted for a big chunk of 63% of the overall sales in that term, helped by government buying incentives to spur sales of fuel-efficient vehicles.) Soooooo, am I considered on the right track to argue on this point? (Participant 14, female)

### *Influence of familiarity on online speech acts*

The class A and B students participated in the same online discussion. Table 1 presents the distribution of class A and B students in the online asynchronous discussion. As

reported in Figure 3, the class A participants contributed to a high number of expressive, directive and referential utterances. The findings indicate that familiarity between learners increased the usage of expressive, directive and referential utterances, confirming Janssen, Erken, Kirschner and Kanselaar's (2009) results that higher familiarity led to more critical and exploratory online discussions. Through the means of online discussion, L2 learners engaged in the dynamic development of sociopragmatic competence. Motives such as being able to interact with the familiar peers and obtain peer recognition might encourage the students to employ various online speech acts.

Table 1. Distribution of class A and B students in online discussion

|             | Class A | Class B |
| ----------- | ------- | ------- |
|             | 1       | 5       |
|             | 2       | 6       |
|             | 3       | 8       |
|             | 4       | 16      |
|             | 7       | 17      |
| Participant | 9       | 18      |
|             | 10      |         |
|             | 11      |         |
|             | 12      |         |
|             | 13      |         |
|             | 14      |         |
|             | 15      |         |

Figure 3. Frequency of class A and B participants' online speech acts

Amount of online speech acts
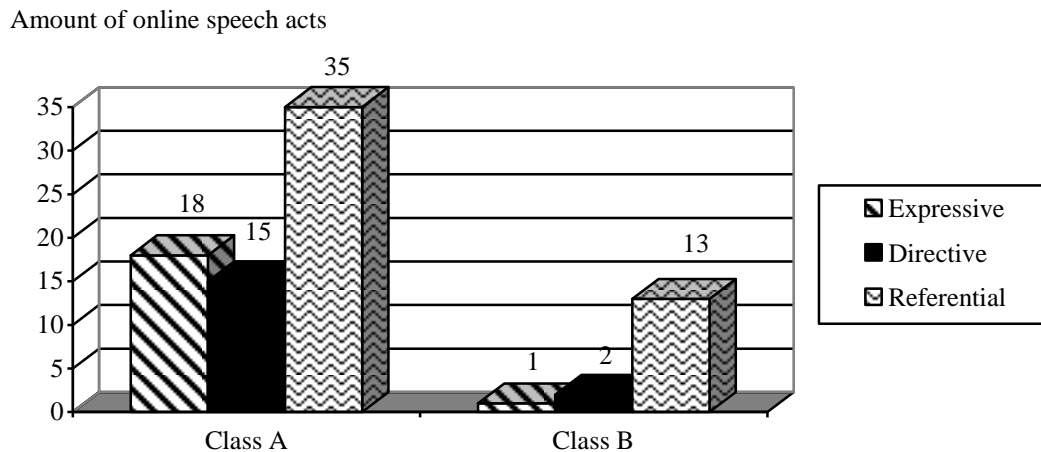


Majority of the class B learners avoided using expressive and directive utterances while interacting with unfamiliar peers from class A. Instead, an average amount of referential utterances was produced. Contrary to the familiar participants' use of referential utterances with expressive and directive utterances, the focus on facts with little emotional engagement suggests another motive of learning. These findings parallel with Lantolf's (2000) notion of activity theory in which familiar and unfamiliar participants used referential speech acts based on different learning motives. In summary,

familiarity between L2 learners seemed to affect the choice of online speech acts and the motive of learning.

*Relationship among social variables and online speech acts*
Regression analysis was carried out to explore the relationship among social variables and online speech acts. As the regression analysis involved a dependent variable, the categories of online speech acts (expressive, directive and referential utterances) were analysed separately with the social variables. To find out whether gender and familiarity were significant predictors of each L2 online speech act, the variance (R Square), F-value and t-values were examined in the tables below.

Table 2. R Square, F-value and t-values for gender, familiarity and expressive utterances

|  | R Square | F | t |
|---|---|---|---|
| Gender | .17 | 1.52 | .56* |
| Familiarity |  |  | -1.58* |

Note. * = p > .05

As presented in Table 2, both independent variables (gender and familiarity) explained 17 per cent of the variance (R Square) in use of expressive utterances, which is insignificant, with the F-value of 1.52. The t-values of gender and familiarity (p > .05) suggest that there was no significant relationship between social variables and expressive utterances.

Table 3. R Square, F-value and t-values for gender, familiarity and directive utterances

|  | R Square | F | t |
|---|---|---|---|
| Gender | .08 | .66 | -.25* |
| Familiarity |  |  | -1.14* |

Note. * = p > .05

Table 3 illustrates an insignificant 8 per cent of the variance (R Square) among social variables and directive utterances, as indicated by the F-value of 0.66. The non-significant t-values (p > .05) indicate that gender and familiarity did not predict the use of directive utterances.

Table 4. R Square, F-value and t-values for gender, familiarity and referential utterances

|  | R Square | F | t |
|---|---|---|---|
| Gender | .13 | 1.10 | -1.03* |
| Familiarity |  |  | -1.18* |

Note. * = p > .05

Evidence was exhibited in Table 4 that social variables and referential utterances were not significantly related. Gender and familiarity contributed to an insignificant 13 per cent of variance and t-values in referential utterances applied in online discussion. Therefore, social variables were not salient predictors of referential utterances, $F(2,15) = 1.10$, $p > .05$.

## Conclusions

This study addresses several main findings. First, the results indicate that gender affects L2 learners' use of expressive utterances in online asynchronous discussion. As illustrated in Figure 2, female participants contributed to a higher usage of expressive utterances that reveal feelings and politeness. The male and female participants applied nearly equal amount of directive utterances, but differ in the types of directive utterances used. This suggests that gender is not a significant predictor of directives use in L2 online communication, supporting Herring (2010)'s findings. Meanwhile, little gender differences were found in the male and female learners' application of referential speech acts. It opposes Burrell, Marbry and Allen's (2010)'s claim that gender affected the female participants' use of stylistic features in online asynchronous discussion.

Second, descriptive data analysis suggests that familiarity between L2 learners increases the use of all online speech acts. As the activity theory (Lantolf, 2000; Thorne, Black and Sykes, 2009) explained, L2 online communicative activities may be related to different learning motives, social and linguistic environments. When L2 learners interacted with familiar peers, their learning motives might impact the choice of online utterances. On the other hand, communicating with unfamiliar peers could result in different motives of learning, leading to different usage of online utterances. Evidence from Figure 3 shows a low percentage of online speech acts use among the class B participants who were unfamiliar with class A participants. The class B participants' inclination of referential utterances and avoidance of expressive and directive utterances indicate that the choice of online speech acts was associated with unfamiliarity between learners and learning motive.

Third, social variables are not significant predictors of L2 learners' online speech acts. Regression data analysis shows insignificant variance (R Square), F-value and t-values of gender and familiarity for each online utterance (i.e., expressive, directive or referential). The former finding contends against Kapidzic and Herring's (2011) work that significant gender differences were discovered in online speech acts. The latter, however, is in line with Mukahi and Corbitt's (2004) results that familiarity was not related to students' online collaborative activities.

The descriptive results also indicate that the use of directive speech acts affects a learner's role in the organisational hierarchy of online asynchronous discussion. The participant who applied the highest amount of directives became the leader in the online discussion. Furthermore, more proficient participants used directive utterances to help less proficient participants restructure the arguments and examples in order to compose argumentative essays. It contradicts the findings of Murphy (2004) that the participants did not collaborate to accomplish shared goals and produce shared artefact.

The limitation of this research is that the sample size in this study was relatively small that only 18 samples were selected for the online asynchronous discussion. The reason was a smaller online discussion group would enable learners to establish closer bond with each other, therefore develop more confident of stating own ideas and commenting on others'. In fact, a sample size which is bigger than 30 would be able to supply more valid statistical evidence as to make generalisation about the relationship among social variables and L2 online speech acts.

This study provides pedagogical implications for developing the L2 learners' sociopragmatic competence through online asynchronous discussion. Appropriate usage of speech act strategies helps form a learner's leading role in the process of online L2 learning. The students should show strong social engagement in the online peer discussion as it fosters the acquisition of sociopragmatic competence. In addition, the interference of social variables in L2 learning should be monitored closely during online collaborative discussion. Teachers need to encourage L2 learners to use a variety of speech act strategies such as expressive, directive and referential utterances in online collaborative discussion. Teachers should play an active role in online collaborative discussion to help L2 learners develop sociopragmatic competence.

Future research is required to investigate the relationship among L2 learners' use of online speech acts and other social variables such as age, ethnicity and online setting. This study explored the intertwined relations among gender, familiarity and undergraduate L2 learners' online utterances in online asynchronous discussion. Examining the use of online speech acts among L2 learners of different age groups in online synchronous setting will add to the literature of L2 sociopragmatic development. Besides, comparative studies can be conducted to investigate the use of online utterances among L2 learners of different ethnicity. The results will provide insight into the effects of ethnicity-related variables (i.e., L1 linguistic knowledge and culture) on L2 learners' online speech act strategies.

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## Appendix 1. Holmes's (2008) functions of speech

1. Expressive utterances express the speaker's feelings. Below is the example:
   I'm feeling great today.

2. Directive utterances attempt to get someone to do something. The types of directives are:
   a) Imperatives express orders and commands. Examples are:
      | Sit down. | (Imperative) |
      | You sit down. | (*You* imperative) |
   b) Interrogatives are polite attempts to get people to do something. Examples are:
      | Could you sit down? | (Interrogative with modal verb) |
      | Sit down will you? | (Interrogative with tag) |
      | Won't you sit down? | (Interrogative with negative modal) |
      | Why don't you sit down? | (Interrogative with wh-question) |

   c) Declaratives get people to do things politely. Examples are:
      | I want you to sit down. | (Declarative) |
      | I'd like to sit down. | (Declarative) |
      | You'd be more comfortable sitting down. | (Declarative) |

3. Referential utterances provide information. Below is the example:
   At the third stroke it will be three o'clock precisely.