# The Influence of Gender on EFL learners' Discourse Functions in a CMC Environment 

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#### Abstract

This study investigates the role of gender on EFL Learners' output of discourse functions obtained from computer-mediated communications (CMC) via Skype. The study seeks to answer the question: Are there any statistically significant differences among the total means of discourse functions generated by gender groups (same-gender (male-male (MM), and female-female (FF)) and mixed-gender (female-male (FM), and male-female (MF)))? Sixty-four undergraduates ( 32 females and 32 males) participated in the study. They were assigned into two gender main groups: same-gender (MM: 16 males who chatted in pair groups with each other; FF: 16 females who chatted in pairs with each other) and mixed-gender groups ( 32 participants ( 16 females chatting with 16 males in pairs, MF (males' output) and FM (females' output)). Participants were asked to chat in pairs for an hour. Results revealed that FF group produced significantly more discourse functions than all the other gender groups, by having the highest total mean.


Keywords: computer-mediated communication, discourse functions, speech acts, gender differences, gender interaction, sociolinguistics

## 1. Introduction

Discourse functions are those functions that written or spoken discourse intends to achieve. In other words, the term refers to the job or the duty of sentences and utterances within their contexts. When someone utters or writes a sentence, there is a function that the spoken discourse carries, such as agreeing with, disagreeing with, responding to, or complimenting participants in a conversation. Sotillo (2000: 84), for instance, used this term to refer to "categories of behaviour in electronic discourse, such as requests, responses, apologies, greetings, complaints, and reprimands".

It is widely accepted in languages that both males and females might use different linguistic features, such as intonational or syntactic features, or might employ their distinct ways of speaking to achieve different purposes (see, for instance, Shehadeh 1999; Hiramoto 2010; Tomasil and Volkow 2011; Holmes 2013; Bani Younes 2014; Abu Ain 2016; Al-Wer 2020; Al-Zamil and Hellmuth
2019). Shehadeh, for instance, referred to one of the goals of conversations that males try to achieve, promoting their performance and production ability. On the other hand, females might seek to show that they have high understanding skills in English as a Second Language (ESL). Similarly, AbuSeileek and Rabab'ah (2013) convincingly explained that when both genders seek to achieve different purposes of a conversation, discourse functions will, of course, be influenced as they are part of their linguistic outputs.

Finally, it is evident that no study, to the researchers' best knowledge, has ever examined discourse functions among females themselves and among males themselves in order to compare their outputs together. As a result, one of the contributions of this study might be to bridge this gap by analyzing differences that may arise in gender interaction types (male-male (MM), female-female (FF), female-male (FM), and male-female (MF)) with respect to discourse functions. In addition, the analysis reveals which gender group produces more discourse functions in computer-mediated communication (CMC) using Skype chats.

## 2. Literature review

This section reviews and synthesises the literature on discourse functions based on two themes. The first and the most important is related to discourse functions and gender. The second briefly covers some studies that explored discourse functions from non-gender-wise perspectives.

A number of researchers suggested that males and females use different discourse functions (e.g., Lakoff 1973; Holmes 1992; Goodwin 2006; Al-Wer 2007a; Al-Wer 2007b; Cameron 2009a, 2009b; Bani Younes 2014; Abu Ain 2016; Al-Shlool 2016; Hayat, Lesser, and Samuel-Azran 2017; Al-Wer 2020). There seems to be no agreement in the literature on the description of discourse functions used by males and females. For example, male discourse functions are generally characterised as competitive, argumentative, boastful, and critical, whereas female discourse functions are described as cooperative, facilitative (i.e., agreeable), supportive, and praising (Holmes 1992; Tannen 1994; Tannen 1995; Cameron 2009a, 2009b; Pierson 2015; Hayat et al. 2017; Pakzadian and Tootkaboni 2018). Similarly, some studies found that males tend to dominate conversations, whether CMC or regular ones, and issue orders, which is not the case for females (e.g., Tannen 1995; Kilbourne and Weeks 1997; Richardson and French 2000; Sierpe 2000; Yates 2001; Guiller and Durndell 2007; Lindsey, Carmeens and Caldera 2010; Hayat et al. 2017; Pakzadian and Tootkaboni 2018). Other studies, however, took a somewhat different line by experimentally proving that females dominate online CMC conversations (see AbuSeileek and Rabab'ah (2013); Bani Younes (2014) or by reporting that girls, not boys, tend to argue about the rules of games, boast about their skills, and issue orders to other girls and boys (Goodwin 2006). This imbalance in the behaviour of both genders in computer-mediated communication (CMC) also manifests itself in their offline communications (Pierson 2015), reflecting gender differences in the use of discourse functions.

Several researchers used variables other than gender in analyzing discourse functions (e.g., Beers and Nagy 2011; Netz and Kuzar 2011; AbuSeileek and

Rabab'ah 2013; AbuSeileek and Qatawneh 2013; MacPherson and Smith 2013; Carretero, Maíz-Arévalo and Martínez 2015; Ogiermann and Bella 2021). Sotillo (2000), for instance, analyzed discourse functions in both synchronous and asynchronous interactions (chats) and found that discourse functions in asynchronous interactions were more constrained than discourse functions in synchronous ones.

Furthermore, other empirical studies have paid special attention to oral conversations or pragmatic constraints in finding and analyzing discourse functions. For example, AbuSeileek and Qatawneh (2013) analyzed oral synchronous and asynchronous computer-mediated discussions in order to find their effects on English Language learners' discourse functions, specifically on question types and strategies. Findings revealed that participants who used asynchronous CMC produced more discourse functions related to question types and strategies than those who used synchronous CMC.

Many studies tackled discourse functions in general terms, without focusing on those produced when males chat with other males and when females chat with females, i.e. in same-gender groups (e.g., Virtanen 1992; Ilić 1998; Sotillo 2000; Hahne and Saddy 2002; Beers and Nagy 2011; Friederici, Netz and Kuzar 2011; AbuSeileek and Rabab'ah 2013; AbuSeileek and Qatawneh 2013; Al-Shboul and Huwari 2016; Solodka and Perea 2018; Jucker 2019; Alhamidi and Purnanto 2019; Al Khasawneh 2021; Salman, Al-Saidi, and Khalaf 2022).

Nevertheless, to the researchers' best knowledge, past studies did not examine the relationship between discourse functions in gender groups, including male-male (when males chat with males), female-female (when females chat with females), male-female (when males chat with females), and female-male (when females chat with males) interactions. Overall then, the review above informed the design of this study by showing that there is a need for a study that focuses on discourse functions in the output of both same-gender and mixed-gender groups. The existing literature above shows a lack of research related to discourse functions, specifically in the same gender groups. This study bridges this gap as it aims to analyze differences that may arise in gender interaction types (MM, FF, FM, and MF) in quantity (number), and quality (type) of discourse functions produced by EFL learners who use online synchronous CMC.

## 3. Goal and question of the study

This study aimed to investigate the differences in discourse functions produced by different EFL learners in gender pair groups obtained through CMC sessions (chats) using Skype. The CMC data are used to answer the following research question: Are there any statistically significant differences among the total means of discourse functions generated by same-gender groups (MM and FF) and mixedgender groups (FM and MF)?

## 4. Method

### 4.1 Participants

The participants in this study are undergraduate students ( $\mathrm{n}=64$ : 32 females and 32 males) at Al al-Bayt University, majoring in English Language and Literature. They were assigned into two main gender groups: same-gender and mixed-gender groups. The same-gender group was divided into MM pair groups (i.e., 16 males who chatted in pairs) and FF pair groups (i.e., 16 females who chatted in pairs). It is worth noting that members of each group chatted in pairs using synchronous chatting via the Skype social network. Each participant chatted only once with one partner in one session, so there were no two outputs from the same participant. That is, participants in the mixed-gender group are different from participants in the same-gender group (see Table 1).

Table 1. Description of gender groups (total number =64).

| Group | Number | Gender | Chatting in Pairs with | Code |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| Same-gender | 16 | M | M | MM |
|  | 16 | F | F | FF |
| Mixed-gender | 32 | M | F | MF |
|  |  | F | M | FM |

The outputs of males and females in the same-gender and mixed-gender groups are analyzed using means and standard deviations for discourse functions generated by the gender groups.

### 4.2 Procedures and data collection

The material gathered for this study is based on EFL learners' output from online synchronous CMC using Skype. Skype was chosen as this application is common in Jordan and easy to use. Participants can also access it using the software's webpage, in case they do not have the application installed on their smartphones. Before selecting Skype, other applications were considered, such as Facebook Messenger, WhatsApp, and imo. However, given the conservative nature of some people in Jordanian society, specifically in mixed-gender interactions (see Al Huneety 2015 and Bani Younes 2020 for more details), it was expected that some students would not accept other students being added to their personal Facebook accounts; rejecting to add foreign students to Facebook accounts might be because this addition could enable recently added "friends" to view others' personal profiles which are otherwise restricted only to close friends or relatives. The same is true for WhatsApp in which students need to exchange their mobile numbers. Hence, the researchers resorted to Skype in order to encourage students to take part, including the conservative ones.

The data for this study were collected from undergraduate students at Al alBayt University, officially registered in the phonetics, phonology, translation, and pronunciation courses. All of them were students majoring in English Language
and Literature and most were second-year students. None reported either visual or other physical difficulties. Their ages ranged between 19-21 years, and they studied English as a foreign language at school for at least 12 years.

It is worth mentioning that official approval was granted by the Department of English Language and Literature, represented by the Ethics and Scientific Research Committee, to collect data from the students in line with ethical considerations. As a result, two information sheets and two consent forms were given to students to sign, and they were asked to keep one copy for themselves. The information sheet included general details about the study, and all students' questions were answered.

Participants were told that their conversations would be used only for academic and research purposes (e.g., in lectures, conferences, and publications); in such cases their data or personal details are treated with complete confidentiality and anonymity, and they consented to participate in this study. They were also informed that their participation is voluntary, with no effect on their marks in their respective courses, asserting that they are free to withdraw from the chat sessions, even without any reason. In the case of their withdrawal from the study, their data would not be used. Additionally, they were told that the purpose of this study would be to analyze discourse functions they produce in their CMC chats and to find out whether there are differences in the outputs of both genders in the quantity (number) and quality (type) of discourse functions.

In addition, they were asked not to use their real names. Therefore, they were given codes (e.g., F1, F2, F3, M1, M2, and M3 in the same-gender group and FM1, FM2, MF1, and MF2 in the mixed-gender groups); ${ }^{1}$ they were asked to use these codes as they may help indicate their gender, which is important in the analysis of the data. After being assigned codes, participants were randomly assigned into pair groups (e.g., M1 chatted with M2 (M1M2); M3 chatted with M4 (M3M4), so every two students chatted together. All participants were asked to chat for an hour, affording all couples equal chatting time.

Participants were allowed four days before sending their conversation logs to the researchers. There was one topic that they had discussed: the Internet and smart phones (advantages \& disadvantages), the online learning experience during the COVID-19 pandemic vs. the face-to-face learning experience (advantages \& disadvantages), or the everyday routine. Both partners in each chatting session were required to send their entire chat $\log$ to the researchers, which might have minimized the risk of one of the partners altering the chat log. The two partners' copies were checked for any deleted chats before being analyzed.

### 4.3 Data analysis

Transcripts for each pair group were analyzed separately, thus the findings of the male pairs were added to each other. The same was also followed for the FF pairs; outputs of males and females in mixed-gender pairs were also analyzed separately so that FMs refer to females' outputs and MFs to males', reaching conclusions on same-gender and mixed-gender pair groups. After participants had finished chatting, the means of quantity and quality of discourse functions were calculated
for both same-gender and mixed-gender groups. Finally, data were tabulated and the results were analyzed per gender type.

The discourse functions used in this study had been adapted from previous studies (e.g., Sotillo 2000; AbuSeileek and Rabab'ah's 2013). The total number of discourse functions observed in our participants' output is 19. These functions, with their definitions and unedited examples, are listed in Table 2.

Table 2. Discourse functions and definitions (modified from AbuSeileek and Rabab'ah's (2013: 50-51) and Sotillo (2000)).

| No. | Functions | Meaning | cited examples from chats [Unedited] ${ }^{2}$ |
| :---: | :---: | :---: | :---: |
| 1. | Greetings | Starting or closing conversations with polite words | Hi/Hello/Good morning/bye |
| 2. | Topic initiation | Starting the conversati with one of the three $t$ in the CMC chats | Which is better online or face to face lectures? |
| 3. | Imperatives | Giving orders | Now talk about your day routine/let's discuss online and face-to-face classes... |
| 4. | Questions | Posing questions | What do you think about this experience? |
| 5. | Changing topic | Moving off-topic | Ok what's your favorite drink when enjoying online lectures? |
| 6. | Holding the floor | Unwillingness to give other partner an opport to contribute to the discussions |  |
| 7. | Correcting moves | Correcting some mistakes in grammar, spelling, etc. | A: I love the Internet and clever phones bc they help us in watching lectures but they waste time, Lol <br> B: I believe you mean 'smartphones' not clever phones. |
| 8. | Request for personal details | Asking for personal information, such as dd of birth, age, etc. | How old are you and where did you live? |
| 9. | Giving explanation/ clarification | Explaining or clarifyin some issues | No, I mean they are useful because we got lost if you don't have smart phones during Covid era! |
| 10. | Threatening | Making a threat | Don't do this or I will tell the doctor... |


| 11. | Compliment and admiration | Paying a person or receiving compliments | Wow-how smart you were |
| :---: | :---: | :---: | :---: |
| 12. | Agreeing or supporting forms | Agreeing with the othe person on something | -I cannot agree more cuz I share this point with you |
| 13. | Controversy | Talking about something that makes controversy | - online leaning proved it is the best |
| 14. | Empathy or sympathy | Understanding others' feelings | - Unfortunately she had Corona now <br> - yeh but I am sorry she failed that course! |
| 15. | Using polite words | Expressing ideas in polite words | - I appreciate your help <br> -Could you please tell me more details about this advantage to understand you? |
| 16. | Emotional abuse | Mistreatment or <br> harassment | - I like to talk with beautiful girt |
| 17. | Response | Giving answers to questions | A: Can you say more habits in y not only waking up so early anc shower <br> B: yes,,,, I also play football at 4 |
| 18. | Refuses | Refusing an offer or anything else | A: Can we have coffee together Class next time? <br> B:Nooooooo thanks |
| 19. | Apologizing | To apologize for some | A: I need your help with Moo next <br> lecture at 12 <br> B: sorry I can not help 4 anothe at 12 |

## 5. Results

The research question sought to determine whether there are significant differences in the total means of discourse functions generated by the gender groups. Thus, means and standard deviations were obtained from SPSS for all gender groups in each of the nineteen discourse functions observed in the data. Table 3 presents the results of the descriptive statistics for all groups.

Table 3. Statistical analysis of all discourse functions by group, for all participants.

| N | Group/ Function | MM |  | FF |  | FM |  | MF |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 1. | Greetings | 1.25 | . 44 | 1.50 | 1.09 | 2.25 | 1.43 | 2.50 | 1.63 |
| 2. | Topic Initiation | 1.25 | . 44 | 1.18 | 1.04 | . 00 | . 00 | . 50 | . 96 |
| 3. | Imperative | . 37 | . 50 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
| 4. | Question | 5.50 | 3.84 | 6.25 | 5.65 | 5.12 | 3.89 | 3.00 | 2.50 |
| 5. | Changing <br> Topic | 1.00 | . 96 | . 75 | . 77 | 1.50 | 2.30 | 1.00 | . 81 |
| 6. | Holding The Floor | 1.00 | . 96 | . 00 | . 00 | . 75 | 1.39 | 1.50 | 2.06 |
| 7. | Correcting Moves | . 00 | . 00 | . 75 | . 77 | . 25 | . 44 | . 00 | . 00 |
| 8. | Request for  <br> Personal  <br> Details  <br>   | 1.50 | 1.96 | . 75 | 1.00 | . 00 | . 00 | . 00 | . 00 |
| 9. | Giving <br> Explanation <br> Clarification | 6.87 | 6.24 | 10.12 | 6.33 | 6.25 | 5.97 | 4.56 | 2.82 |
| 10. | Threatening | . 062 | . 25 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
| 11. | Compliment and <br> Admiration | 2.31 | 1.35 | 3.12 | 3.40 | 4.12 | 5.69 | 2.62 | 2.02 |
| 12. | Agreeing or Supporting Forms | 3.00 | 2.36 | 3.62 | 2.68 | 4.12 | 1.58 | 2.00 | 1.78 |
| 13. | Controversy | . 00 | . 00 | . 75 | . 93 | . 00 | . 00 | . 00 | . 00 |
| 14. | Empathy or Sympathy | . 75 | 1.29 | 1.25 | 1.61 | . 00 | . 00 | . 00 | . 00 |
| 15. | Using Polite Words | . 75 | 1.34 | 1.25 | 1.29 | . 50 | . 73 | 1.25 | 1.34 |
| 16. | Emotional Abuse | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 31 | . 70 |
| 17. | Responses | 6.75 | 5.45 | 6.25 | 6.44 | 4.37 | 3.22 | 5.00 | 3.34 |
| 18. | Refuses | . 00 | . 00 | . 00 | . 00 | . 12 | . 34 | . 00 | . 00 |
| 19. | Apologizing | . 31 | . 87 | . 06 | . 25 | . 12 | . 34 | . 18 | . 54 |
| Total Mean |  | 1.72 | . 81 | 1.97 | . 97 | 1.55 | . 58 | 1.28 | . 60 |

Based on Table 3, females in the same gender pair groups (FF) received the highest total mean in discourse functions of the other three pair groups (MM, FM, and MF), indicating that females produced the most discourse functions of all groups. The second-highest total mean in discourse functions was for males in the same-gender pair groups (MM), followed by females in the mixed-gender pair
groups (FM). The least total mean in discourse functions was for males in the mixed-gender pair groups (MF), showing that males in the mixed-gender pair groups generated the least discourse functions. Such differences in the total means are examples of gender differences in the use of discourse functions in CMC.

The table also provides other examples of gender differences in discourse functions. For instance, the MM pair groups obtained the highest means in topic initiation, imperatives, requests (for personal details), threatening discourse, responses, and apologizing discourse functions. Similarly, the FF pair groups got the highest means in questioning, correcting moves, giving explanations, controversy, empathy or sympathy, and usage of polite words. In the same way, the FM pair groups received the highest means in changing topic, compliments and admiration, agreeing or supporting forms, and refusing offers. Finally, the MF pair groups gained the highest means in greetings, holding the floor, using polite words, and emotional abuse. Overall, such differences in the total means between genders in the use of discourse functions might hint at the possibility of a real difference between both genders. However, in order to find whether there are statistically significant differences among the four gender groups (MM, FF, FM, and MF) in the total means of discourse functions, we performed ANOVA test using SPSS; see Table 4.

Table 4. Results of ANOVA for all gender pair groups in discourse functions.

| Gender Group |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \mathrm{d} \\ & \mathrm{f} \end{aligned}$ | F | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MM |  |  | FF |  |  | FM |  |  | MF |  |  |  |  |  |
| N | M | SD | N | M | SD | N | M | SD | N | M | S |  |  |  |
| 16 | 1.7 2 | . 81 | 16 | $\begin{aligned} & 1.9 \\ & 7 \end{aligned}$ | . 97 | 16 | $\begin{gathered} 1 . \\ 55 \end{gathered}$ | . 58 | 16 | $\begin{aligned} & 1.2 \\ & 8 \end{aligned}$ | $\begin{aligned} & \hline .6 \\ & 0 \end{aligned}$ | 3 | $\begin{aligned} & 16.9 \\ & 14 \\ & \hline \end{aligned}$ | . 001 |

*The significance level is $p .<.05$ level; df: Degrees of Freedom; SD: Standard Deviation.

The table shows statistically significant differences among the four gender groups (MM, FF, FM, and MF) in the total means of discourse functions. To find whether there are statistically significant differences between each pair of the four gender groups, we ran the Scheffe test, as illustrated in Table 5.

Table 5. Results of Scheffe Test for all groups in discourse functions.

| Variable | Group | Compared With | Mean Difference | Sig. |
| :--- | :--- | :--- | :--- | :--- |
| Total Mean | MM | FF | $-.93625^{*}$ | .008 |
|  |  | FM | $-1.84812^{*}$ | .001 |
|  |  |  |  |  |
|  |  | MF | $-.92062^{*}$ | .009 |
|  | FF | FM | $.91188^{*}$ | .010 |
|  |  | MF | .01563 | 1.000 |
|  | FM | MF | $.92750^{*}$ | .009 |

Findings indicated that the FF group significantly outperformed the other three gender groups (MM, FM, and MF) in discourse functions, indicating that females in the same-gender group produced more discourse functions than the other three groups. However, the MF group produced the least discourse functions (mean $=1.28)$ as there were significant differences between this group and the other three groups (FF, MM, and FM) in discourse functions, in favor of these groups. The FM group significantly outperformed the MF in discourse functions, indicating that females in the mixed-gender group produced more discourse functions than their male counterparts in the same group.

## 6. Discussion

Although all participants had the same opportunity to participate in the CMC, the results in Table 3 proved that females in the same gender group had best utilized the CMC conference to demonstrate their sociolinguistic and communicative competence because they produced more discourse functions than males in the same-gender (MM) and mixed-gender (FM and MF) groups. This finding suggests that females in the same-gender groups dominated the synchronous CMC interactions, lending support to the reports that females in the CMC dominate the interactions by producing more discourse of different types, such as lexical or functional discourse (see AbuSeileek and Rabab'ah 2013; Bani Younes 2014). However, this finding contradicts other results that indicate that males dominate online interactions by producing more discourse, i.e., speaking or writing more (see, for instance, Herring 1994; Richardson and French 2000; Shehadeh 1999; Sierpe 2000). Females in the same-gender pair groups (FF) also produced more discourse than males in the same-gender pair groups, which seems consistent with them producing more discourse functions in the mixed-gender groups (FM and MF). The fact that one of the genders dominated the conversation, whether males or females, is in line with prior gender studies (e.g., Lakoff 1973; Holmes 1992) that both males and females differ in their speech and discourse.

Moreover, females in both same and mixed-gender groups obtained higher means than males in asking questions, correcting moves, giving explanations, indicating empathy and sympathy, agreeing with or supporting others, and complimenting their partners, which emphasizes females' cooperativeness. This observation might link with the observation that females' style tends to be cooperative and meek and tends to express socioemotional ideas while males' style is argumentative, competitive, authoritative, and non-cooperative (see Herring 1994; Sierpe 2000; Guiller and Durndell 2007; Cameron 2009a, 2009b; Hayat et al. 2017; Pakzadian and Tootkaboni 2018). Thus, such gender differences between males and females may be accounted for in prior gender studies (e.g., Lakoff 1973; Holmes 1992; 2013; Al-Shlool 2016) as females produced discourse functions that are less direct and challenging than those produced by males, and they also used more polite words than males. These studies attributed females' peaceful behaviour to their feeling subordinate or less important.

However, the findings of the current study do not support the previous research (e.g., AbuSeileek and Rabab'ah 2013) that males were more cooperative
than females. This might be because females are the majority in the Department of English Language and Literature where the data were collected. This might have made them produce more discourse functions and thus seem to be more cooperative than their male counterparts. Thus, this paper found that females in the FF pair groups (mean $=1.97$ ) were more cooperative than females in the FM pair groups (mean $=1.55$ ), which is consistent with an earlier observation stating that females were more cooperative in the same-gender groups than in the mixed-gender groups (Nowell and Tinkler 1994).

It has been noticed that females were vulnerable to emotional harassment or abuse. Males in the mixed-gender group (MF) used statements that might be viewed as harassing or sexist, such as I like to talk with beautiful girls; you seem very beautiful; can we exchange numbers?. This finding accords with earlier observations, showing that women are more subject to emotional or verbal abuse in online interactions and that females may be targets of abuse or harassment by males (AbuSeileek and Rabab'ah 2013; Lindsay, Booth, Messing, Thaller 2016; Rego 2018; Salerno-Ferraro, Erentzen, Schuller 2021).

## 7. Conclusions and limitations

To sum up, the importance of this study stems from the fact that there were no other studies that tackled gender differences in terms of discourse functions, specifically in same and mixed-gender groups. Thus, this study might help fill this gap. This study explored the linguistic differences among gender groups (MM, FF, FM, \& MF) by analyzing their chats and investigating discourse functions in their transcripts. Both males and females have, by nature, different linguistic behaviors which vary across cultures. Aside from gender studies that have not agreed on which gender dominates the mixed-gender CMC conversations, this study has demonstrated that females significantly dominated the CMC interactions in the mixed-gender groups with more discourse functions than males.

There are several limitations of this study. The chats were collected from and created by undergraduate students at the Department of English Language and Literature at Al al-Bayt University in Jordan. Future studies might include participants from other universities from different cultures. In addition, the total number of participants in this study was sixty-four, and the linguistic behavior examined in this study was only the discourse functions of the linguistic output of a relatively small number of participants. As a result, conclusions about the linguistic behavior of this relatively small number of participants are only restricted to discourse functions produced by the participants in this paper.

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#### Abstract

Endnotes ${ }^{1}$ In the mixed-gender group pairs, FM refers to the female output while MF refers to the male output in that particular group. This means that both FM1 and MF1 refer to the same pair of students who chatted together, but the codes were set up, as FM and MF, to distinguish between males and females' outputs in mixed-gender groups. ${ }^{2}$ Please note that these examples were taken verbatim from participants' output, accounting for the ungrammaticality of some example utterances.


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