

The role of computer-mediated communication on EFL college students' writing: Investigating metadiscourse functions

By

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Abstract

Foreign language learners are required to acquire a variety of ways of writing skills through reciprocal understanding with colleagues as well as practicing the necessary skills and social functions of language and writing genres that would eventually make one eligible to be a part of an academic discourse community. The purpose of this study is to investigate how a group of EFL learners in a Western-southern Saudi Arabian university have been introduced to academic writing by completing computer-based communication tasks collaboratively and how they socially interacted to their writings. Learners' interactions were examined using a descriptive design to explain how students negotiated academic literacy in their metadiscourse. Findings showed that participants may show various metadiscourse functions in their online discussions and that metadiscourse in computer-mediated communication will facilitate their understanding of tasks, performance and collaboration for achieving effective learning. Implications for writing pedagogy and suggestions for further research have been forwarded.

**دور التواصل في بيئات التعلم المحوسبة
على تنمية مهارات الكتابة
لدى طلاب اللغة الإنجليزية كلغة أجنبية**

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الملخص

يتطلب من متعلمي اللغة الإنجليزية كلغة أجنبية أن يكتسبوا مجموعة متنوعة من مهارات الكتابة الأكاديمية من خلال التفاهم المتبادل مع الأقران وكذلك ممارسة المهارات الضرورية ووظائف الاستخدام الاجتماعي للغة وأنواع الكتابة التي تفضي في النهاية إلى جعل المرء عضواً في مجتمع الخطاب الأكاديمي. والهدف من الدراسة الحالية هو البحث في دور أساليب تعلم الكتابة الأكاديمية لدى مجموعة من متعلمي اللغة في إحدى جامعات الجنوب الغربي للمملكة العربية السعودية من خلال القيام بمهام التواصل في بيئات التعلم المحوسبة والتعلم التعاوني وتفاعلهم اجتماعياً من خلال ما وراء الخطاب للقيام بمهام تعلم الكتابة. وسوف يستخدم الباحث المنهج الوصفي في البحث في دور التواصل في بيئة التعلم المحوسبة للبلاك بورد على تنمية قدرات الدارسين على اكتساب مهارات الكتابة الأكاديمية من خلال البحث في ما وراء خطابهم. وقد كشفت نتائج الدراسة اللثام عن أنواع ووظائف ما وراء الخطاب المستخدم من قبل المشاركين في الدراسة وأن هذه المهارات في إدارة التفاعل الاجتماعي وما وراء الخطاب أثناء التواصل في بيئات التعلم المحوسبة سوف تسهل من فهم المشاركين في الدراسة لمهام الكتابة وأدائها والتعاون فيما بينهم لتحقيق التعلم الفعال.

Introduction

Computer-mediated communication (CMC) provides opportunities for learners to be a part of that discourse community and learn particular ways of discourse in a collaborative environment. Reaching a level of adroitness and proficiency in any academic discipline requires learners to acquire a variety of ways of academic literacy through reciprocal understanding with colleagues as well as practicing the necessary skills and social functions of language and writing genres that would eventually make one eligible to be a part of a discourse community. In academic literacy courses, it is tacit that “the purpose of writing is not only informative; rather, it is a social act enhancing a writer-reader interaction and building effective communicative relationships” (Al-Rubaye, 2015, p.iii).

This very essential notion of writer-reader interaction is quintessentially esoteric to the meaning of what metadiscourse is as being a rhetorical aspect of language production upon ‘creating a reader-friendly text’ (Ibid.). Metadiscourse is a rhetorical strategy that is deeply rooted in the distinction between discourse content and any other talks or written comments, explications, summaries, etc., which are not part of discourse per se and is used by language users to guide, implore or explain to the audience what is going on in language learning classes. Metadiscourse involves

self-reflective expressions that help writers negotiate interactional meanings, assist in expressing viewpoints and engagement with readers (Hyland, 2005), or enhance attitudes towards written text (Vande Kopple, 1985).

Therefore, this study has come to theoretically enhance field practitioners and researchers’ understanding of metadiscourse functions in online collaborative learning settings.

Statement of the Problem

The interest of the present researcher in exploring the metadiscourse of teaching academic writing in the Computer-based Communication (CMC) environment of Blackboard started as a bandwagon effect of catching up with modern technology in language learning and as a result of reading research findings revealing that technology is sure to help learners of foreign languages acquire the basic and advanced skills of literacy.

A review of the current literature in academic writing provides insight into how CMC may be beneficial to academic writing. Yet, investigating the metadiscourse in collaborative CMC settings such as Blackboard could help in understanding the nature of academic writing and in improving academic writing skills in EFL learners consequently. Studies show how English as a Foreign Language/English as a

Second Language (EFL/ESL) learners can develop their own academic identities with CMC tools (Helvie, 2012). For the most part, students in traditional academic writing courses rarely interact with students outside of their discipline (Helvie, 2012, p. 23). When students study academic writing through online delivery platforms, especially when they are seriously engaged in working in an eLearning environment in addition to traditional classroom settings, they will most likely remain closely connected to their e-pals who share with them academic writing interests and/or attitudes because writing then becomes an interactive socializing and acculturating community (Helvie 2012; Lovelace & Wheeler 2006; Jung 2007; Riley 2008; Wortham 2005).

Past research on the social interactions in academic writing development classes has highlighted the need to study students' interactions in order to gauge the effectiveness of CMC tools associated with the use of Blackboard. Students' enhanced interaction using text-based CMC is taken as evidence of its benefits. As such, EFL learners using the CMC tools of Blackboard can "benefit from interaction, because the written nature of the discussion allows greater opportunity to attend to and reflect on the form and content of the communication" (Warschauer & Kern 2000, p. 15). In here, the discourse community is frequently understood as constructed by and within the patterns of interaction exhibited by the participants" (Potts 2005, p. 145). This study will theoretically enhance our understanding of metadiscourse functions in online collaborative learning settings.

Researchers have started to study learners' written interaction and their value in promoting learner community and there is a growing body of research in this domain. Learners' written interactions, therefore, will be investigated in the present study to gauge the role of CMC in promoting a learner-centered environment.

The purpose of this study is to investigate how a group of English as a foreign language (EFL) learners in a Western-southern Saudi Arabian university are going to be introduced to academic writing by completing computer-based communication (CMC) tasks collaboratively and how they will socially interact to their writings. Learners' interactions will be examined using a descriptive design to explain how students negotiate academic literacy using synchronous chat and asynchronous discussion boards.

Research Objectives

Specifically, the present researcher explores discourse functions used by EFL learners in their written CMC interactions as part of the investigation of the metadiscourse of academic writing instruction in EFL contexts. Metadiscourse functions include experiential functions, the use of language to represent to experience and ideas (Halliday, 1994), the interactive function, textual and interpersonal markers in managing discourses about academic writing, and interactional function which is concerned with the ways writers conduct interactions with their readers by intruding and commenting on their message (Li, 2012, p. 852). They are central to

understanding students' use of language in CMC, and its potential to generate collaborative learning and consequently acquisition of academic literacy skills. Learners accumulate their linguistic knowledge and their growing experience with language use by deploying a wider, more flexible variety of linguistic forms to express a particular metadiscourse function (Berman & Slobin 1994; Berman 1996; Slobin 1996).

In online collaborative learning, the process of building knowledge and the process of idea-sharing and feedback and the metadiscourse used among members who collaborate is considered by proponents of social constructivism to be one of the highest levels of construction. Through its facilitation of collaboration and its metadiscourse, therefore, CMC may be conducive to promoting writing as a process.

The study, therefore, is set to investigate all the issues discussed above in the context of exploring the functions of metadiscourse as associated with computer-based communication in the medium of Blackboard® LMS during academic writing learning.

Research Questions

The following research questions and sub-questions will guide the present investigation:

1. How do participants (EFL learners in a Saudi undergraduate college) use CMC to negotiate academic literacy with their peers?
 - a. What metadiscourse functions do participants use when they are engaged in online discussions?
 - b. Are there differences in the use of

metadiscourse functions in synchronous and asynchronous writing?

2. How do interactions via CMC metadiscourse functions influence EFL learners' production of academic writing?
3. What benefits and drawbacks do students perceive during the collaborative writing process through CMC?

Research Methodology:

Participants

There were 26 participants in this study selected from the English Department, College of Languages and Translation, King Khalid University (KKU) in Abha and their instructors. All the participants were males enrolled in English 217 (Writing IV), an advanced writing course in Level 4 of 8 levels that constitute the English program. The researcher was careful to include participants representing different educational backgrounds, and a variety of academic competence in order to make the group of 26 participants as much representational as possible of the population of EFL college students.

Research Method and Design

Using a mixed method approach, this research follows a descriptive, interpretive research design with the purpose of exploring how students negotiate in their metadiscourse academic literacy via using two types of collaborative online modes: synchronous chat and asynchronous discussion board in relation to students' academic writing.

The study begins with a broad survey in order to generalize results to a population and then focuses, in a second phase, on detailed qualitative, open-ended interviews to collect detailed views from participants.” (Creswell 2003, p. 21) As a descriptive piece of research, this study investigates the transfer of ideas from synchronous and asynchronous interactions to student rough drafts, while using descriptive analyses and reports to gain insights into how the learners utilize the facilities of asynchronous discussion boards and synchronous chats for the development of academic writing processes. With this in view, students’ online interactions will be coded and quantified into its metadiscourse functions and will be analyzed to answer the first research question.

Data Collection & Instrumentation

A survey questionnaire consisting of three main parts: personal information, perceptions of the advantages and disadvantages of CMC, and experience and metadiscourse of EFL writing skills and the use of computer/internet technology in EFL writing were developed, validated and used for the purposes of this study. Semi structured interviews were conducted to all participants and the teachers to tap into their perceptions of the process of writing and acquisition of academic literacy and their experience of learning these through collaboration and metadiscourse functions using CMC.

Classroom Observations were utilized to see how students participated in classroom discussions and face-to-face feedback sessions. These were intended

to discern differences in classroom discussions and metadiscourse in face-to-face feedback sessions with regard to collaboration and interaction.

Data were analyzed both quantitatively and qualitatively to investigate how EFL undergraduate students negotiated in their metadiscourse the development of their academic literacy skills in a CMC environment in terms of language functions and focus. Analyzed also was how CMC influenced both the process and the product of student’s academic writing activities.

Literature Review

Research remains very diverse and prolific on different aspects of the affordances of CMC in developing literacy in EFL settings; for instance, it has tackled issues of affect, metacognition and metadiscourse in understanding and enhancing academic writing development (Antonietti et al. 2008; Boekaerts et al. 2000), psychological factors influencing CMC in the classroom including attitudinal and motivational factors (e.g., Gal-Ezer & Lupo 2002; Derks et al. 2008; Gao & Lehman 2003; Gao 2003; Mishra & Yadav 2006), effective presentation of academic literacy instruction in asynchronous CMC mediums (Hirvela 2007; Goodfellow 2005; Potts 2005); and active, collaborative participant learning (Abrams 2001; Alkaff, 2000; Al-Rubaye, 2015; Harwood, 2003; Li, 2010; Potts, 2005; Skrandies, 2007; Toumi, 2012; Zeng & Takatsuka 2009).

A large number of studies have been conducted to investigate computer-mediated communication for language

learning (e.g., Dunkell 1991; Higgins 1983; Lee 2000; Levy 1997; Warschauer, M. 1996). However, to date, there have been fewer empirical studies conducted to determine the effectiveness of CMC tools for exploring the role of CMC in improving EFL writing competence and attitudes. The fewer research that investigated the impact of using CMC tools on students' writing has tended to focus on the socio-constructive theory of cognition and, to a lesser extent, the psychological benefits, showing that CMC can encourage students to use more complex sentences and reduce their anxiety (Warschauer & Kern 2000). However, the potential collaborative and interactional benefits of CMC were the least explored areas. In line with a social constructivist view (Bakar et al. 2010; Fosnot 1996; Gonzalez, 2003; Liu et al. 2001; Stage & Muller 1998; Watts-Taffe & Truscott 2000), researchers contended for the significance of the social benefits and the need for more research exploring how writing practices can be improved through the opportunities for interaction and collaboration provided by CMC.

Albeit, in relation to English language learners, most studies conducted on the use of CMC as a collaborative and interactive tool were carried out in ESL contexts and/or in contexts where non-native speakers (NNS) of English studied in native English speaking countries. Furthermore, those few studies conducted in EFL contexts are overwhelmingly carried out in the South-East and Far East, including China (Zhixue & Shaoshan 2003; You, 2004), but less so in the Arab world where EFL teaching itself (on a much wider scale compared to the recent past) and the

incorporation of technology in education is a relatively recent phenomenon. Hence arises the need for research that considers current classroom practices in the Middle East where technology is used as a collaborative-supportive tool in order to study the benefits or drawbacks of web tools from the perspective of collaboration and social interactions embodied in metadiscourse investigations, especially in academic writing development.

As for the studies on the metadiscourse used in teaching and learning academic literacies, much of the research conducted focused on the nature and types of writing tasks that both L1 and L2 students have to perform. There is an extensive literature concerned with 'academic literacy' in first language and second language research (see for example Lea & Street 1997, 1998, 2006; Lea 1998; Lillis 2003; 2008) and the ways in which students have to adapt to a language and discourse that is specific to a subject or discipline area. Yet, few studies, especially in the Arabian EFL context, focus on how students develop their academic literacy and gain access to the particular discourse community in performing their writing tasks using CMC tools. In this research, the present researcher will focus on the acquisition of academic literacy as a process of acculturation into the discourse community of the particular academic writing course, the social environment of the students both in the classroom and online fora (as conducive to interaction and collaboration), and the institution. This is in line with earlier literature that has identified academic literacy as "a social practice rather than a set of cognitive skills to be learnt and

assimilated. This approach takes account of the cultural and contextual components of writing and research practices” (Lea & Street 1996, p. 2). This approach also examines how EFL learners use metadiscourse and how it functionally interplays with discourse proper in their interaction with peers in collaborative small-group discussions and academic writing. Such an approach looks at students’ output from a socio-cultural perspective, taking into consideration the academic context of the classroom in its specific social settings.

Prior research also explored the cognitive benefits of CMC in students’ writing. The findings of this research concluded that students could gain more skills in critical reflection (e.g. Weasenforth & Meloni 2002). In terms of syntactic complexity, the delayed nature of asynchronous discussions gives learners more opportunities to produce syntactically complex language. Learners used more subordinate and embedded subordinate clauses in their writing (Sotillo 2000), and appropriated a variety of language practices such as using complex clauses correctly and using correct sequence connectors (Chung et al. 2005). In addition prior studies showed that CMC could help students engage in discursive practices in the construction of meaning through expert practices by providing peers corrective feedback and novice practices by seeking peers’ advice (Weasenforth & Meloni, 2002; Chung et al. 2005; Quinn 2011).

However, although such studies are useful in highlighting how the writing process can be facilitated through the affordances of CMC – the asynchronicity in particular – they do not show how

students can gain further knowledge about writing through the interactional benefits associated with CMC such as increased collaboration and coordination, enhanced motivation and self-confidence and decreased anxiety, in addition to providing a more student-centered environment.

In this vein, Storch (2005) investigated the nature of collaboration when students produce a jointly written text. This study showed the cognitive benefits of collaborative writing through intertextuality – understood as the feedback that feeds into students’ revised drafts – that was achieved by students writing in pairs and through their metadiscourse during writing classes.

Findings from Storch and Aldosari’s study (2010) also showed that pairs produced shorter but better texts in terms of grammatical accuracy, complexity and task fulfilment. In addition, the results also revealed that collaboration provided students with the opportunity to pool ideas and exchange feedback in the metadiscourse. For their attitudes, students were positive about their experience with collaborative writing in terms of form and content among collaborating writers.

In another study by Bacabac (2008), the researcher investigated two online practices, the use of synchronous chat and asynchronous discussion boards, for composing a research-based essay, delving into the proposition that collaborative CMC forums such as synchronous chat and asynchronous discussion boards can foster cognitive constructivism. Findings revealed that both chat (synchronous) and discussion boards (asynchronous) had an impact on

producing the successful transfer of ideas in terms of essay topic, purpose, and thesis statement and an average transfer of main ideas and supporting details.

In a similar vein, Liou & Peng (2009) showed the advantages of training provided to learners to conduct effective peer feedback and researched the interactive functions of weblogs to facilitate computer-mediated peer reviews for collaborative writing. Their case study was conducted to examine the training effects of peer reviews on students' peer comments, the quality of their revisions, and their perceptions when composing in weblogs. Comparisons between reviews without and with training indicated that the students made more revision-oriented peer comments and had more success in revising their compositions. Introspective data also showed that this instructional approach stimulated their interest in improving their writing.

As for the social benefits of CMC for enhancing interaction and collaboration among EFL students of academic writing, these studies used mixed methods by combining quantitative and qualitative design. Kern (1995) examined the use of Daedalus InterChange, a local area computer network application, to facilitate communicative language use through synchronous, written classroom interaction to compare the quality and features of the discourse produced by two groups of 40 participants during an InterChange session and during an oral class discussion on similar conventional topics in the control group. Findings revealed that there were more student-to-student interactions. In other words,

students took more turns, produced more communicative sentences, and used a greater variety of metadiscourse functions when using InterChange compared to the oral discussions which resulted in more peer-initiated learning, gradually reducing students' reliance on the instructor. This study confirms the benefits of using CMC tools for enhancing interaction and collaboration. Students who were often reluctant to participate in oral discussions participated more actively in InterChange online discussions.

By the same token, Sotillo (2000) investigated discourse functions and syntactic complexity in ESL learner interactions obtained via two different modes of CMC: asynchronous and synchronous discussions. Findings showed that the quantity and types of discourse functions present in synchronous discussions were similar to the ESL face-to-face conversations. Synchronous discussions were highly interactive and student-centered. Students produced more informal electronic texts more akin to natural speech and utilized greater variety of discourse functions while exchanging ideas and information with their classmates in synchronous discussions than when posting to the asynchronous discussion forum as it appeared in their metadiscourse. Synchronous interaction focused on meaning/content between and among students. On the other hand, discourse functions in asynchronous forums were similar to the traditional language class discourse format of question-response-evaluation. This study revealed that synchronous forums provided an environment for the students in which they were less formal, used a

variety of discourse functions that were similar to natural speech and were more independent in directing the course of their discussion than in the asynchronous discussions, which were more instructor-centered.

Research is still in need to pinpoint the role of students' attitudes and perceptions about the affordances of CMC to foster collaboration, reducing anxiety, increasing self-confidence and collaboration and learner centeredness in order to present a comprehensive view of the benefits of CMC in developing students' academic literacy as it appears in the analysis of their metadiscourse.

As for the research tackling learners' attitudes towards CMC, the literature revealed that although such studies are useful in highlighting how learners' attitudes towards CMC affect their cognitive, social and psychological performance, few studies have taken into consideration the collaborative and interactional aspects of its effectiveness. One reason could be that either the researchers did not specifically take an approach that explores factors of interaction and collaboration in learning and development or because the students could not relate any such advantages to CMC. Hence, there is a gap in the literature on this vital issue, which is one of this study's main concerns.

Results

The question of how participants use CMC to negotiate academic literacy with their colleagues (Question 1, part a) was answered through the analysis of the discourse functions that were used by participants during online interactions (synchronous and asynchronous) and the

participants' responses to the semi-structured interview questions on what they perceived of their language use and how they negotiated with peers and the teacher when they were engaged in computer-mediated activities. The online discussion activities were recorded in both online discussions (synchronous) conducted through Elluminate Live and Blackboard® LMS forums (asynchronous) in the form of peer feedback.

A total of 1014 asynchronous postings were made by 26 participants in a period of 16 weeks of term work. This indicates that on average one participant contributed roughly 26 times in 16 weeks, which is about 8 postings per week across the discussion forums. This works out as around one posting in one forum in one week. This rather low rate of participation echoes teachers' comments in the interview that the students did not use the facility as much as was expected of them. In other words the students were not very actively participating in the online asynchronous forums.

For the 2496 asynchronous postings, findings highpoint the fact that, on average, each participant posted about 96 times in all the 32 sessions, which is around three postings in each session which continued for one hour, or six postings by each participant a week. Comparing the two modes, the researcher could observe that students participated more actively in the synchronous than the asynchronous activities. The reason given by the course teachers in their interviews was that participation in the live synchronous sessions was mandatory as it counted towards the attendance requirements to

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be fulfilled by every student. In addition, the teachers thought that through live discussion which was closer to real life, students could post their immediate responses and get prompt replies, and that this immediacy encouraged participation.

In addition, Table 1 below gives

examples of the metadiscourse functions revealed by the students across both the synchronous and asynchronous interactions. These metadiscourse functions were located in the 1014 asynchronous and 2496 synchronous postings.

Table 1:

Examples of asynchronous and synchronous metadiscourse functions

Discourse function	Example from learners' online interactions
Greetings	Salam; hi; hello
Topic initiation	Let's discuss this issue ... "A No-smoking university"
Explaining	Doctors associate good health with no smoking and exercising. They say that one cannot be healthy if one does not quit smoking, eat well and exercise. So if you stop smoking, you don't have to worry about your health.
Supporting and Confirming	You are right when you say that exercising supports good health and helps one to cease smoking.
Showing disagreement	I think only eating good food does not provide good health. What makes you healthy is to keep fit by exercising and not to smoke.
Questioning	What is the cause of cardiac diseases?
Advising	Your essay will be more effective if you include more specific details and examples in it.
Reacting	You should not have used Google for (re)writing the topic. I did not say you plagiarized the essay or that someone wrote it for you. What I wanted to say was that you may take help from someone to help you develop your ideas, but not copy and paste!
Eliciting	Could you give some evidence why good health is enhanced when young people keep away from smoking?
Critiquing	You have not justified why adults should be stricter in preventing their children from smoking.
Closing moves	I feel enough discussion has been done. Let's meet on Monday with a new topic.

Table 2 below presents the types and frequencies of occurrence of metadiscourse functions in the online

entries produced by 26 participants in both synchronous and asynchronous activities.

Table 2:
Type and Frequency of Discourse Functions in Online Entries

Type of discourse function	Synchronous mode	Asynchronous mode
Explaining	30%	30%
Topic initiation	18%	10%
Supporting and Confirming	12%	18%
Reacting/responding to Critiquing	12%	9%
Showing disagreement	10%	8%
Questioning	8%	9%
Advising	0%	6%
Greetings	2%	6%
Critiquing	6%	1%
Closing moves	1%	3%
Eliciting	1%	2%
Total	100%	100%

As it appears from the table above, students used various metadiscourse functions which assisted them in offering and getting extended opportunities for collaboration between students as is shown in interviews with their teachers. Below is a description of use of different metadiscourse functions and why some functions were used more frequently than others.

Explaining:

Data analysis shows that students extensively used the explaining function in both synchronous chats (30%) and asynchronous discussion (35%). They used this metadiscourse function for

several reasons, such as elaborating a point in discussion, for responding to requests/questions for clarification or explanations, or for explaining a particular point of view. They tended to use this function more often than not due to the fact that they needed to discuss, comment and provide or obtain information about new tasks assigned to them in the writing classes when the task was obscure, ambiguous or requires more information to illuminate it.

Examples from students' interactions (both synchronous and asynchronous) are provided here to illustrate how they used this function for various reasons.

Example 1 (asynchronous):

Participant 7 explaining how to organize a process essay (showing understanding)

“Participant 1:

This kind of essay will show how something, an event or process, like making food for example, happens. This process essay will show the procedures of doing something according to a sequence. But the introduction, body and conclusion will be different<Explaining>”

Example 2 (synchronous):

Participant 1 and 5 explaining the difference between the thesis statement in the introduction and the topic sentence in a multiple-paragraph essay (responding to requests/questions for clarification or explanations):

Example 2 (synchronous): Participant 1 and 5 explaining the difference between a three and a five paragraph essay (responding to requests/questions for clarification or explanations)

Teacher: Ok. Can anyone tell the difference between a thesis sentence and a topic sentence? <Questioning>

Participant 1: Yes, The thesis sentence comes in the introduction and carries the theme of the whole essay, but the topic sentence comes in later paragraphs and carries the topic of each paragraph in the body of the essay. <Explaining>

Participant 11: But why a thesis sentence and a topic sentence? <Questioning>

Participant 1: I think there should be

more general sentence that talks about the theme of the whole essay but for each coming paragraph, there should also be another sentence that specifies the topic to keep the flow of ideas on track. <Explaining>

Participant 9: Good, but every paragraph has one main idea. And every essay has one main theme, like an umbrella theme. <Explaining>

Participant 19: The thesis sentence is for the essay like the main topic sentence, and the supporting sentences for the thesis sentence will function like topic sentences for the body paragraphs. <Explaining>

Participant 1: Yes, the specific details in the introductory paragraph will be topic sentences in the body paragraphs; every detail is about a main idea subsumed in the thesis sentence. <Explaining>

Participant 1: I think so. Topic sentences in the body paragraphs should reflect the thesis sentence and the details in the specific supporting sentences in the introduction of an essay <Explaining>

Participant 26: Yes, I think I read something like this in the book, Academic Writing 3. <Supporting and confirming>

Participant 23: But I don't understand how to formulate a thesis sentence and a topic sentence. Does a thesis sentence have a topic and a controlling idea like a topic sentence? <Questioning>

Teacher: ??? Can you give examples of a thesis sentence and a topic sentence? <Eliciting>

Participant 3: A thesis sentence for an argumentative essay could be:

High school graduates should be required to take a year off to pursue community service projects before entering college in order to increase their maturity and global awareness. **<Explaining>**

Participant 2: *An example of a descriptive essay topic sentence:*

There are many possible contributing factors to global warming. **<Explaining>**

Participant 17: *I think in the first example, the author gives the purpose and scope of his entire essay, but the second topic sentence fits more for a paragraph in the body. <Explaining>*

Example 3 (asynchronous): Participant 9 explaining about the concluding paragraph (elaborating a point in discussion)

Participant 4: But why is the thesis statement repeated in the concluding paragraph? **<Questioning>**

Participant 17. We don't repeat the thesis statement. What I mean is that we rephrase it and conclude our essay so that the reader is reminded at the end what was the central idea of the essay. [...] **<Explaining>**

The examples provided above show that the students were using the metadiscourse function of explaining for various reasons and that may explain its higher rate of recurrence. It might be helpful to grasp the role of the explaining function in the participants' apparent feeling that it constituted their main purpose in using the forums.

In addition, interview data helped

explore what students thought of the extensive use of the metadiscourse function of explaining. Most of the students considered the discussions as requiring them to explain what they thought. This is what Participant 1 said in the interview: [Responses are reproduced in grammatically and stylistically corrected versions]

"Using the discussion board is very helpful for knowing about writing topics, writing techniques and for getting corrective feedback. We discuss many points regarding the content and form of essays. When our colleagues post queries, everyone tries to give their opinions on the forum. If a student was not sure, everyone else can make an effort to help and explain in the best way. The forum is an excellent online medium for peer learning under the supervision of our teacher. The forum gives students the help each one needs by giving comments and explanations with details about the writing issue."

Participant 23 shared similar views:

"Discussion board on the Blackboard gave us a lot of opportunities to share our views on different issues regarding writing topics and ideas as well as writing mechanics and vocabulary. We learnt from each other because I think everyone was trying to explain what they knew about different topics. For example I always studied well about the topics for discussion in the Illuminate Live discussions. So I was easily explained to my class fellows about things they were not clear to them. Also when I asked something I was not sure for, I was satisfied with my colleagues' answers, especially many who explained elaborately and the teacher also

explained properly when no one could answer some of my queries....”

The teacher, when asked to comment on the extensive use of the metadiscourse function of explaining, answered:

“I believe that effective collaboration can occur online, especially in synchronous live sessions under the supervision of the online tutor. The online tutor should emphasize that students share what they know with each other in the sessions. In discussion board activities, this was exactly what my students were doing. So in order to share what they know and do in their writing class, students were using this function of explaining more often than other functions. In point of fact, the nature of the writing tasks was conducive to the extensive use of this function by most students. It also shows that those who knew more than the others were willing to share their knowledge and competencies and they were explaining what they knew to their peers as best as they could. I was there also to help when there was a dire need for that.”

The significance of this metadiscourse function of explaining in learning has been reiterated in relevant literature. For instance, Webb & Mastergeorge (2003) in a synthesis study showed that giving and receiving explanations is beneficial to learners' achievement during peer interactions and learning in small groups as was stressed in many studies. Webb & Mastergeorge (2003) contend that explaining is an important metadiscourse function because it highlights the two aspects of learning: knowing and sharing. First, explaining entails that the one doing the act of explaining 'knows' what they are

talking about and second they are willing to share their knowledge by elaborating it to others. Therefore, the use of the explaining function during CMC in EFL classrooms can be very assistive for students since teachers can surmise that the learners in this study were undergoing learning of different structural and genre traditions of academic writing and were sharing their knowledge by explaining it to other learners.

Supporting and Confirming:

In both synchronous and asynchronous modes, the discourse function of supporting and confirming was the second most used. The following example from students' online postings illustrates how it was used.

Example 5: Supporting and Confirming

“Student 13: I believe that good writing should have the characteristics of clarity, simplicity and accuracy at the level of content and coherence and cohesion at the level of form. My peers' essays have some characteristics of good writing, but not all of them. Some essays present ideas presented in clear and consistent tones, and are set in a good organization format. <Supporting and Confirming>”

“Student 1: I agree with you. Some essays are clear, simple and written in grammatical language and the ideas flow easily. They are also well-organized. <Supporting and Confirming> For example, Student 3's essay provides a well-written introductory para with a thesis sentence and specific supporting

sentences which were well developed in the body paragraphs. The detailed ideas well reflect the thesis statement and the detailed sentences in the introductory para.[...]<Elaborating>”

The frequency of the use of the metadiscourse function of supporting and confirming reveals that learners gave generally positive comments and positive remarks when discussing other students' writing during peer review tasks. By the same token, when their own writing was under discussion, they responded to others' comments in a more positive tone. This indicates that CMC could help them build reciprocal confidence and develop constructive rapport with one another getting peers involved in collaborative online assignments in synchronous sessions, though less frequently in asynchronous sessions. An excerpt from an interview with Participant 3 shows how the student felt about peer review on his writing (Reproduced in a corrected, edited version):

“In my view, Blackboard® live sessions provided us with the opportunity to share what we know with others and to learn from one another in a cooperative way. Sometimes I liked peer feedback, and in some cases, I did not like them when my colleagues were overcritical, but in both cases, I benefited the most.”

Topic initiation:

This is another important metadiscourse function third in rank, given the frequency of its occurrence both in synchronous sessions as well as in the asynchronous mode, but in both modes, it was teacher-guided. However,

although the synchronous chats were initiated by the instructors, usually the discussions were open-ended and free-structured and there was a wider scope for students to initiate newer or sub topics or modifications on teacher-suggested topics.

Reacting:

The metadiscourse function of reacting was the fourth in the rank of frequency. This function included both reacting to critiques and responding to teacher elicitation bids. It was used in the discussion board for various reasons, when queries were asked for clarifications, explanations or when students needed to respond to some interactions required by peers or the teacher.

Other Metadiscourse functions:

The other metadiscourse functions, including greetings, advising, questioning, showing (dis)agreement, critiquing, eliciting and closing moves were less frequent and the least identified in the qualitative analyses due to the nature of the tasks of writing and the activities students were involved in, given that the course is focused on writing more than on oral skills. Sometimes, the students did not know how to use other functions like advising or critiquing due to lack of experience or to keep the spirits of their peers high. One more social reason has to do with tribalism. Students avoid getting implicated in too much critiquing in fear it turns into criticizing.

In addition, analyses of interview transcripts and online postings on the discussion board divulges that EFL college students were uncertain as to

assume the role of the connoisseur, thereby lacking skills of advising and critiquing. This was clarified in an excerpt from an interview with Participant 1:

“For me, I don't like to judge class fellows' correctly, may be because I lack the competency or I am afraid they get angry or hurt. However, when the teacher urged us to read our peers' works, I found the task was both interesting and beneficial for me and for my colleagues. We all made use of the comments and feedback.”

Indeed, qualitative analyses showed the CMC environment, especially in the synchronous mode was highly supportive, especially when clear instructions were given instantly by the teacher and when and some guided and semi-guided practices on how to effectively respond to peer feedback activities were supervised by the teacher. Observations and analyses of student interactions and their responses to the semi-structured interviews revealed that in this process, learners acquired some degree of proficiency in academic writing through the use of CMC as it appears from analyses of students' metadiscourse functions' use.

For the differences in the use of metadiscourse functions in synchronous and asynchronous modes, which answers the second part of the first research question, the researcher compared interactions from the synchronous versus asynchronous discussions. Analyses propose that the asynchronous mode can efficiently be used for more task-oriented home assignments.

The utilization of metadiscourse functions in the asynchronous CMC by

learners implied that the learners had to use the 'explaining' function mostly since interactions between learners and their peers on the one hand and learners and the instructor on the other were mainly task-oriented; e.g., completing a task such as providing information about a writing topic and discussing peers' essay drafts. Task-oriented assignments like these insinuated students' critical thinking, by getting them to reflect on and analyze various tasks of academic writing in addition to providing critical and corrective feedback to their peers.

However, in the Elluminate Live synchronous sessions, learners tended to post questions or responses to teacher- and student-generated questions on the spot. Yet, the interactions were momentary and transitory written in a conversational manner. Elaborate and detailed specific responses were infrequent and uncommon because the nature of questions and class time were very brief that they required short answers. This is illustrated by the following excerpt from a synchronous session. Reflecting on the reasons why brevity was a common feature of written interactions in synchronous sessions in the interviews with the students, they opined that long answers required more meditation, effort and time to produce, whereas the synchronous mode forced them to be immediate and swift in responding. This indicates that the synchronous mode was very close to real life conversations.

Participant 19 said in the interview:

“The board discussion differs from Elluminate Live sessions as in the former I had more time to read and reflect on

my colleagues postings and essay drafts. If I notice errors or aberrations from the writing mechanics and rules, I can provide detailed corrective feedback. But in the synchronous sessions, time was short and the teacher want us to respond immediately.”

There were some prevalent metadiscourse functions identified in the synchronous postings and interactions; these were topic initiation moves; explanations (student responses; teacher response/comments; and student responses); critiquing other students’ writings or reacting to critiques; and showing (dis)agreement with ideas discussed.

The frequency of occurrence of these metadiscourse functions showed that ‘supporting and confirming’, ‘reacting/responding to critiquing’, ‘showing (dis)agreement’ and ‘questioning’ were dominant across the synchronous and asynchronous postings and interactions, but they were more dominant in the asynchronous mode. Even some less used metadiscourse functions like greetings and advising were more seen in the asynchronous mode than in synchronous sessions.

As for the second research questions that tapped into the effect of CMC interactions and metadiscourse functions on learners' academic writing, analyses were conducted on the six essays by the participants which they shared with their peers and the instructor over the Blackboard® LMS.

Participants had to cross-revise and copy-edit their essays as per peer reviews and collegial feedback to finally submit a revised final draft in the discussion board. The researcher examined

students’ feedback, initial drafts and final essays against the feedback from peers. Scrutiny of the similarities and differences in the essay versions by the participants showed that their revisions were comprised of additions, deletions or modifications in the drafts. These changes included corrections and elaboration at word or clause level, language edits at the sentence level, and reshuffling or rearrangements of paragraph sentences basically for maintaining simplicity, clarity, cohesion and coherence of ideas topics and supporting sentences. This was done through examining intertextuality—the amount of feedback and changes trackable in revised versions of essays as students were asked to activate the tracking feature of Office when they wrote and edited the essays. Table 3 below presents the frequency of revisions made by the ten participants during the revision of their essays.

Table 3: Frequency of revisions

Type of revision/copy-edits	Frequency
Sentence edits for simplicity, clarity and accuracy	717
Additions, deletions, or modifications at word and sentence level for simplicity, clarity, word-choice, accuracy, and cohesion	921
Sentence/Paragraph rearrangements	1897
Adding details, content additions for coherence and elaboration	313

Results summarized in the above table show that the revisions and changes more frequently done by the students was edits at the sentence level either for correction or for maintaining simplicity, clarity and accuracy. The errors made by students and identified by their peers in the drafts of their essays had to do with the use of prepositions, subject-verb agreement, parallel structures, and run-on sentences. These rhetoric devices were explicitly taught in live sessions and the learners were making use of these in the online peer review activities.

The second most frequent revisions were related to additions, deletions, or modifications at word and sentence level for maintaining simplicity, clarity, word-choice, accuracy, and cohesion. Peers added sentences in the paragraphs to provide more specific details and add more ideas as suggested by peer feedback.

The third most common was rearranging sentences in paragraphs to achieve coherence and clarity. Such revisions also indicated that students were using their knowledge acquired from online classroom lectures and applying that in peer review activities. Generally, the deletions were mostly done at the sentence level. These changes occurred when students received peer feedback about repetitions and recursiveness of idea or when the content in paragraphs was irrelevant, leading to illogical progression of ideas.

Analysis of Student Essays: a Summary of Findings

Of all the 104 essays produced by the 26 participants during the time of the study, 6 representative essays were

analyzed and examined in detail to identify revisions that could be tracked to peer feedback. These essays have been chosen to exemplify two distinctly varying revision types. The selected essays provided a good example of incorporating peer review feedback and revisions. In addition, the authors of the essays integrated most of the peer feedback in their revised drafts. Further, the revisions included constructive feedback that required essay writers to execute the prescribed edits in order to improve their writing ability.

In the 6 essays of analysis, peers made the following corrections and changes:

- They revised, modified or changed the thesis sentence in the introductory paragraph to make it conspicuously representative of the topic of the essay. They also added details to make clear and support the controlling ideas in topic sentences in body paragraphs.
- They rearranged sentences in paragraphs and reshuffled paragraphs to attend to the flow of ideas. In the same vein, they divided body paragraphs into smaller ones with one main idea and a few supporting sentences of relevance to the main idea in each paragraph.
- In some cases, they added more paragraphs to respond to the main ideas in the introduction and support the introduction's sentences more appropriately.
- In all essays, they added prepositions where missing, corrected verbs to match tense, and made several word choice changes to make up for easy

understanding of the texts as well as too many spelling checks .

- They deleted unnecessary prepositions, conjunctions, verbs or nouns that are ungrammatical, meaningless or confusing.
- They made revisions, changes and modifications in the structure and organization of the paragraphs for achieving clarity and supporting and/or disagreeing with an idea and suggestions to change or revise it.
- They improved the overall structure by separating ideas into different paragraphs and added appropriate details to support their viewpoints.
- They made many corrections and changes that address a large number of syntactical and grammatical errors, such as adding a missing verb, article, preposition or a missing subject.

As examined in the essays of analysis, the types of feedback and corrections solicited through CMC appeared to address issues of spelling and sentence-internal grammar. In this way, CMC proved to be an effective medium for helping learners negotiate such aspects of academic literacies. However, learners may need more guidance and practice to improve their proficiency before they can use CMC to improve aspects such as discourse structure or other genre conventions.

Finally, the feedback found in the peer feedback forum mostly consisted of supporting and confirming what peers had written. Some feedback helped students revise the surface level features of sentences and grammar structures. This indicates that such feedback and

corrections solicited through CMC is restricted to surface level issues. Therefore, CMC in the context of this study was an effective medium for helping learners negotiate such aspects of academic literacies, but only when learners can receive more guidance and practice before they can use CMC to improve aspects such as discourse structure or other genre conventions. Considering the metadiscourse of communication between students and their peers in both the synchronous and asynchronous modes, the feedback provided by peers in live sessions and in the forum activities can be divided into three main types. The most recurring of all can be described as approving and encouraging what essay writers had stated in their essays. The second most recurring type had to do with encouraging and supporting with one or two suggestions for revisions by adding more details or specific information. To give supporting comments and then a criticism is a good practice. The third type of feedback which occurred rarely in synchronous sessions but more frequently in asynchronous discussion board activities tackled structural errors aimed at correcting spelling and sentence-internal grammar. Rarely as well, only some students pointed out structural errors at both sentence and paragraph levels.

The third research question sought to tap into how students perceive the role of metadiscourse functions and feedback provided via CMC in producing their final drafts of essays. Students' interviews constituted the main source of data.

During the interview, the participants revealed that peer feedback and

comments were useful in refining the quality of their essays in terms of overall structure, sequence of ideas and reduction of language errors. Yet, some of the students were not content with the quantity of comments provided by peers. One participant commented that he did get some useful feedback on his essays, but his revisions were mostly the result of his own critical reflections and efforts on the first draft and his need to improve his writings. The participants reported some benefits and some drawbacks in the way computer-mediated peer review was used in this study.

Benefits

Participants pointed out that the main benefits of written online peer feedback and metadiscourse functions was that CMC assisted in demonstrating the problems or concerns, providing comments on their peers' essays more prominently than in a face-to-face setup and initiating collaboration with their peers in the synchronous mode. As well, they felt they had more time to reflect and then construct their feedback correctly in the asynchronous mode. Most of them agreed that they would prefer written online feedback to face-to-face. Here is how Participant 17 described his feelings:

“When I detect errors in my e-pal's work, I can write to him but it is hard to tell him about his mistakes in face-to-face communications. It is not acceptable in this culture to tell someone about his incorrect writings as they will not like it. Showing mistakes and corrections in the forum will be easier and more beneficial as I have more time and I can write any comments fearlessly and I think my peer

will also not take it personally. In addition, I can write my comments as comment insertions in the essay using the Word feature of comments.”

Participant 24 shared similar views.

“I can write comments more easily on essays because I study my peers' essays at home and I have more time for reading, and copy-editing when afterwards I can inform them about what is good and what is bad in their essays.”

In addition, another benefit of online peer feedback sharing is that it helps writing learners to generate ideas. Participant 17 confirmed this point further in his response:

“Online peer feedback is useful for every one at the different stages of writing; at pre-writing for getting ideas on the topics, during writing for polishing the writing and correcting the mistakes and in the post-writing stage for editing and revising.”

This excerpt from the interview above shows that peer feedback could offer the students more opportunities for critical reflection. As such, peer feedback is conducive to building critical reflection skills in some students.

In addition, online written feedback could be more ‘tangible’ in terms of it being available to the writers all the time. The students could return to it whenever they wanted to benefit from it. Participant 11 said in the interview:

“Feedback in face-to-face communication is ephemeral; one cannot remember all the points because they are all oral. However, when it is written in the forum then I don't worry because everything is written and I have time to view it and improve my essay.”

Drawbacks

In the interviews with the participants, they could show the drawbacks of online peer review; most of them observed that they could detect some major drawbacks about CMC.

Participant 19 felt that feedback in the classroom was infrequent and rare, compared to asynchronous work at home because it contained contributions from peers and the writing instructor as well.

He said:

“In live sessions, there is less feedback because all the students are participating under the teacher’s supervision but they cannot write everything. In addition, the teacher gives his own feedback as he provides some very useful comments, which students can record down in writing.”

Another drawback related to the nature of online discussion where the communications between two or more people were delayed or interrupted. Participant 23 for the most part complained about the frustration CMC instruction caused him.

“When I publish my writing, I need to do this ahead of time so that my peers have enough time to respond and for the teacher to do the same, but sometimes it takes too much time to receive supporting comments.”

Using CMC in the asynchronous mode, in discussion board, for communicating corrections and comments on students’ essays can be useful as perceived by most students despite the fact that a few of them thought it was not sufficient in terms of both quantity and quality. CMC was seen to be a beneficial medium as perceived by the students from three perspectives.

Firstly, it helped EFL learners successfully revise their essays in a relaxed way. They felt that they could revise their essays without worrying about their language limitations and it was easier than in face-to-face communication for them to keep track of the changes and organize their ideas. Secondly, they found it easier to comment on their peers’ work, especially if there were some errors or mistakes to point out and thought the student whose essay was reviewed would not take it personally. In some cases, it also helped learners to generate ideas for their own essays after they read their peers’ essay and comments provided on those. Thirdly, they also valued the potential of CMC in improving their academic literacy with the help of written online feedback. Students did incorporate the feedback in their final drafts largely when this was tracked down to the first drafts.

Nevertheless, a few students were not fully satisfied with this mode and felt the need of oral communication as in live sessions. They thought that peer feedback in live sessions was more substantial than in the forum activities. They also felt frustrated on certain occasions when they expected some peer to respond but he did not and so their queries remained unanswered. One student thought that the time required to complete peer review activity was too much. This implies that despite some perceived demerits, online peer review activity encourages a collaborative learning medium in which students can assist each other in revising their drafts.

Discussion

The literature on metadiscourse functions illustrates various uses by the

students to discuss academic papers with their peers. In this study, the most frequent metadiscourse function used was 'explaining'. In this line, Webb & Mastergeorge (2003) demonstrated that the use of explaining may be construed as evidence that collaborative learning is taking place as it reflects an environment where students interact to assist each other by clarifying, elucidating and clarifying information to each other. The nature of the tasks in the asynchronous CMC was to find and share information on topics related to academic writing and reflect and relate it to the face-to-face teaching by the teacher. In the process the use of various metadiscourse functions, but mostly 'explaining' in this mode of communication was also a sign of scaffolding among peers to develop their knowledge in the discipline of academic writing.

However, differences in synchronous and asynchronous interactions have been reported in previous research, suggesting that asynchronous modes can be more useful for the task-oriented as they carry less phatic discourse. For example, Herring (1999) reported that users exploit the potential of loosened coherence for the purposes of play and to enjoy intensified interactivity, especially in synchronous modes. Similarly, Johnson (2006) reports a higher percentage of social-emotional interactions in the synchronous mode than in the asynchronous mode and more time spent in task-oriented interaction in the asynchronous discussions mode. Also Levin et al. (2006) discovered that interactions during asynchronous discussion reflected more critical thinking than during synchronous discussion. Moreover, Sotillo (2000)

found that asynchronous discussions afforded more constrained discourse functions than those found in synchronous discussions. Similarly, in the present study, there were differences in the types of discourse functions present in both the asynchronous and synchronous data. Findings in this study showed that the metadiscourse features found in the asynchronous discussions consisted primarily of explaining in responses to teacher- or student-generated questions, supporting and confirming postings made by both teacher and students and reacting to critique.

Considering the use of the various metadiscourse functions in the asynchronous CMC, it could be observed that the students were indulged in utilizing the 'explaining' function the most because the interactions were mainly task-oriented in that students participated to complete a task such as providing information about an issue and discussing other students' first drafts. Such tasks also encouraged critical thinking, where the students had to reflect on and critique various issues of academic writing in addition to providing critical feedback to the peers on their essay drafts. The findings are congruent with findings in the study by Sotillo (2000) which revealed that asynchronous discussions afforded constrained metadiscourse functions. This study also agrees with what Levin et al. (2006) surmised about interactions during asynchronous mode as more conducive to more critical thinking than during synchronous mode.

Implied in the findings of this study is the researcher's observation that even

students with low proficiency levels could have benefited from their peers' feedback for their own revisions even if they may not be able to provide substantial feedback in terms of suggestions for revisions on their own. Vygotsky's theory of Zone of Proximal Development (ZPD) (Vygotsky, 1978) can explain this; the zone of proximal development is the distance between what a person can do on his or her own and what he or she can do with the help of others. In this perspective, learning doesn't entirely occur within the individual's mind but, rather, is a product of social interactions with other individuals. Thus, what is learned and constructed depends both on the shared experiences and on each member's efforts in the group. Therefore, from the social interactional perspective, the findings confirm that students with low ability can gain benefits from the ones with higher ability than theirs. In such a CMC milieu where the collaboration among students takes place, the opportunities for students' learning will increase.

In this regard, too, CMC provided students with an opportunity to engage in positive empathy which helped them build mutual confidence while engaged in online writing assignments. This finding conforms to the findings of Johnson & Johnson (1987), who argued that in online collaborative learning settings, students learnt actively, negotiating and discovering more meaning through reconceptualization of prior knowledge and working in an environment that reduces anxiety and uncertainty.

By the same token, CMC was potentially useful for initiating

comprehensible interaction and collaborative learning which resounds in the research done by Kitade (2000) and Vance et al. (1997) who reported similar findings in their studies, suggesting that students perceived cognitive, psychological and collaborative benefits of the affordances of CMC.

Findings also surmise that synchronous and asynchronous discussions were less teacher-dominated and more student-centered. This shows the affordances of CMC for interactivity and support, thus linking in with the social constructivist perspective as pointed out by Warschauer (1997). According to Warschauer (1997), by using CMC students can construct and reconstruct their knowledge through dialogue, text-based interaction, web-conferencing, and face-to-face discussions. In such an environment where students interact using written text, the meaning-making process of learners improves and they mutually build knowledge societies (Harasim, 1997).

To conclude, it is suggested that both synchronous and asynchronous activities can be helpful to students in their meaning-making process and as Bacabac (2008) suggests by saying that both modes are equally effective in promoting collaboration among learners, yet in varying degrees. In the process of this collaborative interaction, using various metadiscourse functions, CMC provided students with an extended platform to become virtual members of a particular discourse community of their online forums, their particular class and their specific academic writing course.

Recommendations and Implications for Pedagogy

Practically, this study contributes to the growing body of literature on academic writing by addressing the nature of academic writing and metadiscourse of EFL students in a computer-mediated environment in Saudi Arabia. Results showed that CMC can be effective in improving Saudi EFL students' academic literacy skills through interaction and collaboration as it appears in their metadiscourse in online and asynchronous communications. In this way, the impact of CMC may be more influential in providing learners with interaction and socio-affective support to enhance their cognitive/linguistic writing abilities. This implies that writing instructors in this country should be aware of both the advantages and disadvantages of the use of CMC technology as a pedagogical tool for academic writing development.

EFL writing pedagogues in Saudi Arabia can develop CMC-inspired strategies to create a social constructive medium for effective instruction into writing.

They can use CMC for initiating, negotiating and communicating peer feedback in a more usefully interactive fashion. Informants in this study indicated that sharing feedback could substantially help them in revising their drafts, specifically the type of feedback in which they could suggest changes involving elucidation and elaboration of ideas.

It is expected that using CMC for writing instruction will provide a collaborative environment where the

writing anxiety could be reduced, thereby making EFL learners more confident and less fearful to participate.

In addition, findings from this study will help instructors of academic writing and other literacy skills make informed decisions about how to effectively acculturate EFL students into the discourse community of their choice with the help of CMC.

To conclude, students need sufficient time, scaffolded instruction and training in addition to emotionally bolstering activities in order to successfully interact with their peers in the CMC environment. It may be concluded that CMC technologies can only support but not replace group collaborative processes as it occurs in natural conventional educational settings.

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