

Synchronous Written Computer-Mediated Communication Among Efl Learners: A Case Study

Assist. Prof. Dr. Aqeel M.J. Al-Hamedi
Assistant Lecturer :Muna Abdul Abbas Abdul Hassan Al-Fatlawi
(Shatt Al-Arab University College)

Abstract

This study explores synchronous computer-mediated communication (CMC) among university- level EFL learners. In essence, this paper tries to investigate how EFL learners at university level interact and hence how they enhance their communicative performance. It examines the strategies adopted by those learners in categorizing their messages and processing their interaction structures. It so attempts to provide a visualization on the coherence vs. incoherence of message sequences among the participants in a CMC chatting. To achieve the study, the researchers will adopt a discourse analysis model that may be suitable to materialize the assumptions. Accordingly, the expected outcomes of this study might take account of the impact of CMC on the EFL students' communicative competence in using the language , besides the improvement of the EFL students' linguistic capacity in both lexical and grammatical aspects.

المخلص:

تستكشف هذه الدراسة التواصل المتزامن بواسطة الحاسوب (Computer Mediated Communication) بين متعلمي اللغة الإنجليزية كلغة أجنبية على مستوى طلبة الجامعة. في جوهرها ، تحاول هذه الورقة البحثية استكشاف كيفية تفاعل متعلمي اللغة الإنجليزية كلغة أجنبية عند التواصل عبر برنامج الواتس اب، وبالتالي كيفية تحسين أدائهم التواصل. و ذلك من خلال فحص الاستراتيجيات التي اعتمدها هؤلاء المتعلمون في تصنيف رسائلهم ومعالجة هياكل تفاعلهم. و يحاول البحث تقديم تصور حول تماسك الرسالة المرسله مقابل تعارض تسلسل الرسائل بين المشاركين في الدردشة. ولتحقيق هذه الدراسة ، سيعتمد الباحثان نموذج تحليل الخطاب الذي قد يكون مناسباً لتجسيد الفرضيات . ووفقاً لذلك ، قد تأخذ النتائج المتوقعة من هذه الدراسة في الاعتبار تأثير التواصل عبر الحاسوب على الكفاءة التواصلية لطلبة اللغة الإنجليزية كلغة أجنبية عند استعمال هذه اللغة ، إلى جانب تحسين القدرات اللغوية لطلبة اللغة الإنجليزية في الجوانب المعجمية والنحوية.

الكلمات المفتاحية: التواصل المتزامن، تحليل الخطاب، طلبة اللغة الانكليزية.

1. Introduction

Due to the quick advancement in information technology and its easy access to the majority of population worldwide, new media of communication have emerged; namely on-line chatting and e-mails. Such media were investigated under the generic label (CMC) starting from the 90s. CMC is an area of interest for a number of second language acquisition and linguistic discourse analysis (Yangus and Inigo, 2010: 72).

Thus chat communication has been a favourite subject of interest in computer mediated discourse analysis (Herring, 2004:1). This is due to the fact that chatting on-line is quite different from face-to-face communication, and is different from other CMC media namely e-mailing. For example, Toyoda and Harrison (2002: 82-99) investigated the use of on-line chatting as a means to develop and enhance second language acquisition. They were particularly interested in triggers and categories of negotiation of meaning between users as a means to learn and practice newly acquired vocabulary and language. They (ibid: 83) assert that CMC can enhance “learners’ interlanguage even more than oral conversations, as learners can view their language as they produce it.” Consequently, participants can edit and monitor their messages.

1.1 Objectives

The present paper aims at presenting a discourse structure analysis (DSA) of computer based chat transcripts amongst EFL participants. It also intends to demonstrate the linguistic elements which are influenced in computer-mediated communication (CMC), including the syntactic and semantic features of this sort of chatting as experienced by EFL participants.

1.2 Hypothesis

The paper is grounded on the hypothesis that when EFL users use chat communication, they encounter breakdowns in the communication process and so they follow a simple two-way chatting pattern which may result in certain linguistic cases such as grammatical deficits, spelling errors *de facto* made abbreviations.

1.3 Tools for Computer Mediated Communication

To concentrate on the goals of the study, a group of EFL university-level learners volunteered to provide the researchers with their printed-out authentic chatting logs. Being keen on the volunteers’ anonymity and to maintain the privacy of the participants, their names were crossed out from the chat logs; letters were used instead.

1.4 Methodology

Discourse Structure Analysis (DSA) is divided into four steps as followed by Holmer (2008) :(a) importing , (b) referencing, (c) discourse structure building, and (d) analysis. Chat logs are imported into a specific data format. Each chat log must be referenced by a coder. Each message is coded in terms of its relationship to the other messages that it pairs with. This reference is not necessarily formed between consecutive messages in the log. The totality of these references creates



discourse structure that may consist of several threads. The analysis stage will focus on the actual interaction. The results will describe the individual communication behavior of a participant and the resulting social network of the group. There are several methods to visualize the resulting discourse structure so as to highlight a given aspect of the structure.

2. Review of Literature

Chat may be seen as “text-mediated telephone conversation” (Kitade, 2000 as quoted by Toyoda and Harrison, 2002: 83). This is due to the lack of the physical environment, i.e., non-verbal signals. The medium of interest in this paper is the synchronous written CMC, namely chatting on-line, be it by two or multiple users. A particular interest is when multiple users create concurrent threads. Previous research covered both the linguistic features and discourse aspects of on-line chatting as a medium of interaction. The former covered issues such as style, abbreviations and emoticons. The latter investigated the chat discourse structure such as turn taking and interactional coherence (See Holmer, T. 2008).

It is common knowledge for anyone who uses on-line chatting that such discourse is characterized with its lack of coherence due to the overlap of discussion topics. Having alternating topics in the same chat session is taken as incoherent whereas one with a message sequence on the same topic is taken as coherent (Cornelius and Boss: 2003). Other researchers investigated the social structure underlying chat communication. The “fundamental assumption” is that “sender-receiver relationships can be used for the creation of social networks.” (Holmer, 2008: 2)

Rafaeli and Sudweeks (1997) identified three types of chat communication:

- a. Declarative (one-way)
- b. Reactive (two-way)
- c. Interactive (dependent)

Interactive communication is defined as an alternating continuous exchange of messages between participants in which the messages are not only related to the previous but also to earlier messages in contrast to the simple initiating- response pairs. (ibid) Chat logs may also be analyzed in terms of their contents. Hence, chat conversations tend to follow typical schema: “trigger, indicator, response, and reaction” (Toyoda and Harrison, 2002: 89).

- a. The trigger is the stimulus for negotiation.
- b. The indicator alerts that there is a communication problem.
- c. The response comes from the speaker who causes the problem.
- d. The reaction to the problem (ibid).

This paper aims at making a discourse structure analysis of the chat logs. It is done by the means of topic tracking. Hence, identifying references between messages on a particular topic will make building their structure possible. This process is one of manual coding and counting that can be later visualized in terms of figures and patterns. The model to be followed is adopted from Holmer (2008).



Visualizations are essential in drawing underlying communication patterns. The goal is to reach accurate patterns that reflect the dynamics and resolve the complexity of communication threads.

2.1 Chatting vs. Face-to-Face Communication

An obvious difference between the two is the lack of non-verbal cues (such as facial expressions) in CMC. Therefore, this leads to the adoption of certain conversation strategies; one of which is the reliance on verbal correspondence to avoid communication breakdown. Moreover, unlike face to face communication (FTF), chatting on-line has the advantage of providing a log of the communication that can be saved and later viewed. Such logs are “valuable” resources in ESL acquisition (ibid: 84) in addition to its use as a raw material for discourse analysis. In addition, written CMC has an advantage over FTF in the sense that “learners amplify their attention to form, produce a larger quantity of better output, and feel less threatened.” (Yangus, 2010: 73). In the summary of their study, Jody and Desia (2008: 121-155) agree that CMC can by no means loom to the complex features that face-to-face takes in, such as facial expressions, gestures, and hand movements.

2.2 Oral CMC vs. Written CMC

Oral CMC is the use of voice or video conferencing between two or among multiple users. This is made possible to the availability of free programs such as Skype, and the huge advances and availability of hardware to help support such media communication. Written CMC, on the other hand covers text-based CMC such as emailing and texting.

Written CMC is taken as a “hybrid mode” since it possesses feature of both written and spoken language. Hence written CMC provides users with similar advantages of “real time interaction in which learners negotiate meaning, modify input and output, and respond to feedback” (Yangus, 2010: 73).

2.3 Synchronous vs. Asynchronous CMC

A distinction between the two is needed to highlight the difference and special linguistic features of the two for EFL / ESL users and discourse analysis. Synchronous CMC refers to the feature of real time interaction. Consequently, this is a feature provided by audio and video conferencing. Most interestingly, this feature is available in one written CMC, namely chatting online. On the other hand, asynchronous CMC refers to the use of e-mails, which allows people to take the time to read and write messages. “The delayed nature of this type of communication gives learners more opportunities to produce syntactically complex languages.” (Toyoda and Harrison, 2002: 83).

2.4 Coding References

The chat coder is faced with the issue of inferring meaningful relationships from often incoherent intertwining messages. The coder must locate answers to questions, openings for closings and other types of relationships between the given and taken in the same log. The coder must be aware of the context and keep in



mind the number of participants. For example see Table (1) that shows a manually referenced chat log:

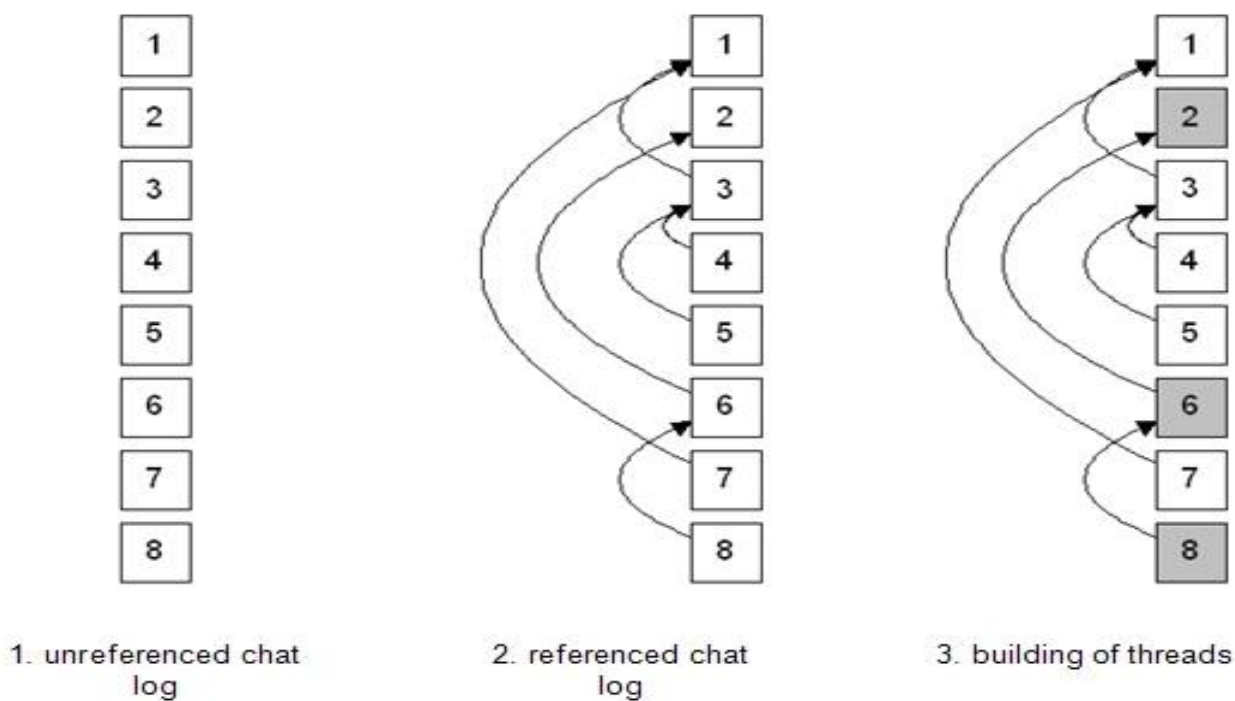
Table (1): Manually Referenced Chat Log (Vronay et.al. 1999 as cited in Holmer, 2008:5)

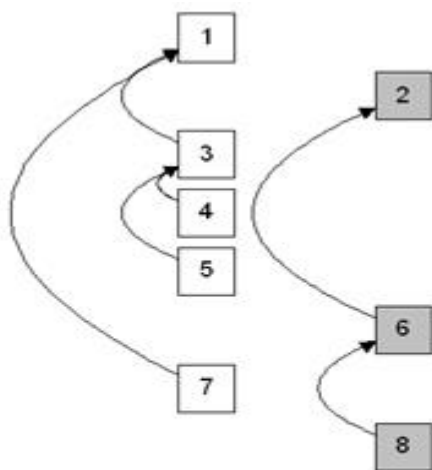
Reference ID	Order ID	Message
1	1	Black: Did you see that new Mel Gibson movie - I think it is called "Payback"?
2	2	Pink: I saw the academy awards last night. Did you watch it?
1	3	Pink: yep.
3	4	Pink: It was very violent, but funny.
3	5	Black: You saw it? You liked it?
2	6	Black: How did it end up - who won?
1	7	Red: I heard it was good.
6	8	Pink: It was OK. At least Titanic didn't win everything.

In multi-topic chat logs, the coder has two choices. The first is to split the messages into a number of parts according to the number of threads. Each part is given a different reference. In this case the whole log should be read by the coder before importing it. This method is recommended when the message has different addressees (Herring and Kurtz, 2006).

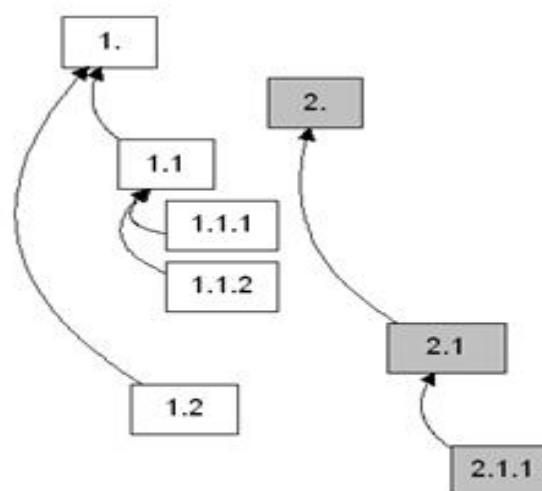
The second is when the message refers to multiple messages by the same author, in this case the log is not split and the last possible message is referenced.

Figure 1: Sample of DSA Referencing (Vronay et.al. 1999 as cited in Holmer, 2008: 7)





4. separation of threads



5. indexing messages

These metrics are formed in this sequence because each needs the results from the previous step as an input for its analysis.

2.5 Discourse Element Types

Discourse elements are classified by Vronay et.al. into five components:

- Seed: beginning of a new thread.
- Chain: a message with one reply
- Fork: a message with multiple replies
- Tail: a message inside a thread with no further replies.
- Isolated: a message without reference or replies. (ibid: 7).

These elements help classify discourse structures into:

- A chat with seeds, chains and tails only
- A chat with many forks

The former structure contains “linear sequences of messages only”. This indicates a discussion between two users. As for the second structure, it contains multiple answers to messages, hence, suggests threads traced to more than two participants (ibid: 8).

Hamling (ibid) offers chat line software that can produce visualization of the discourse structure by means of graphical electronic forms.

3. Case Study

This study is based on the analysis of an unsupervised written English CMC via “WhatsApp” which is a popular smart phone software application. The users are all EFL learners of educationally homogeneous backgrounds. They volunteered and agreed to submit their chat log for analysis as organized by their chat group supervisor. The chat group sessions are completely unsupervised by any tutor and are held between the 7th till 21st March 2018. The chat group supervisor was previously instructed to create the group and invite her colleagues to join for the purpose of using English as an extra curriculum activity. Users’ anonymity is



protected as their names and phone number are replaced with letters of the alphabet. At rare occasions first names are kept so as not to disrupt message coherence. The total number of users is 12.

The log is imported from “WhatsApp” screen shoots that were made and sent from the chat group supervisor to tabular format (See Appendix 1).

For example:

Table (2) : Sample of a Referenced Chat Log

Order ID	Message Indexing	User ID	Text [7th March 2018]
1	1	A	Hey
2	1.1	B	Hi ☐
3	1.1.1	A	How are you Sura?
4	1.1.1.1	B	am fine ☐
5	1.2	C	Heyy girlz
6	1.2.1	C	What's up
7	1.2.2	A	Hi sweetie
8	1.2.2.1	C	Hey honey

As illustrated above the first column indicates the order ID whereby each message is give a number. Hence the numbers run continuously from (1) to (521) which is the last message in the log. This makes it more organized and easier in comparing and analyzing the text phenomena. The second column refers to message indexing which will be further enhanced below. It namely shows the relationship between the consecutive messages. Hence it is an organizational strategy for numbering messages that shows the hierarchical relationship between the messages as seen in the example above.

1	1	A	Hey
---	---	---	-----

This is the seed for the first thread and is given number (1) under the order ID since it is the first message and is given (1) under message indexing to show that it is a seed (a new topic) and not a reply. The letter (A) is given under user ID to differentiate this user from the others. Messages running from 2 to 8 are all taken replies to the initial seed and are given decimal numbers beginning with number of the seed they refer back to. Messages are presented under the text column exactly as they were initially texted on “WhatsApp”. This method of organization is an adaptation of the one presented by Holmer (2008).

3.1 Analysis

The chat log is very rich with text phenomena that are why they are presented in the following three points: linguistic phenomena, chat features and discourse structure analysis. To work out error analysis , Stephen Pit Codrer's (1981) model will be adopted in this paper. The model compromise five procedures that can be exposed in three stages as follows:



- a. Collecting samples of learner language errors.
- b. Identification and description of errors
- c. Explanation and evaluation of errors

3.1.1 Linguistic Phenomena:

Error analysis is the first layer that draws the attention of the researchers. As discussed earlier Synchronous WCMC such as “WhatsApp” enjoys the features of both spoken and written communication. Hence users are expected to make a number of mistakes pertaining to an area collectively called grammar or linguistics as follows:

3.1.1.1 Spelling

The users’ level of English is ranging between elementary to intermediate. Therefore, it does not come as a surprise that they made some spelling mistakes. The interesting part is that the “WhatsApp” software provides the feature of auto **correction**. The number of mistakes is expected to be much more if it were not for this feature. There is no exact way of estimating the extent of using the auto correct but judging by the general performance of the users in the classroom and that on “WhatsApp” it becomes quiet clear that most of them did. Clear evidence is the following three examples:

196	E	It’s not a matter of money guys... we can create happiness just by our feelings when we become a <u>quiet</u> sure that happiness is inside us and we just need to reveal it!
-----	---	---

357	A	Yes I do, you should be <u>conference</u>
-----	---	---

442	H	Noor <u>douse</u> like big house?
-----	---	-----------------------------------

458	C	Yeah sure or else where <u>the</u> would eat and sleep and other stuff
-----	---	--

In message number 196, the word “quiet” is used instead of “quite”. It is a common mistake for EFL speakers but obviously the software auto correct forced it or the user has mistakenly chosen it from the suggested list of words on “WhatsApp”. The second example, message number 357 is even clearer as the user was typing the word “confident” probably even misspelled but the auto correct forced the word “conference” which is irrelevant to the context. The same goes for the word “douse” in message number 442. The underlined words in the following three messages are examples of misspelling:

140	E	Okay I love myself□□ U should do that but in that love should be <u>bondered</u> □
179	C	Sorry...Money cannot create happiness!



		Right , but sometimes it <u>dose</u>
233	K	<u>Mess</u> you so much
244	J	<u>God</u> evening

3.1.1.2 Grammar

Grammar here is used in its general sense referring to sentence structure including punctuation. The number of mistakes here is much larger than that of spelling. Here are some examples.

Table (3): Sample of the common grammatical errors in the Chat Log

Order ID	User ID	Message	Grammar Problem
9	C	So what <u>are going to</u> do in the weekend	missing pronoun
34	A	Heheheh also <u>we going to</u> try to be more active	missing auxiliary
56	C	<u>What's</u> talking about	missing pronoun "it"
68	A	I didn't read it <u>yet</u> but my sister highly recommended it	"Yet" is not used with this tense.
95	E	<u>I can feel you</u> when u become happy or sad	sentence structure and wording
101	C	But I don't have <u>a</u> one before	extra article
102	C	So I don't know what <u>should I do</u> with it □□	word order
126	C	Thinking what to have <u>on</u> dinner	wrong preposition
167	E	<i>Guys stop dreaming all what we need in the future is a decent job</i> Dreams <u>creates</u> hope□	verb inflection
176	C	If you <u>got</u> the money <u>you'll</u> do whatever you want	Conditional sentence
203	H	I <u>clean</u> the house	wrong tense
212	H	I <u>do not</u> write in last week	wrong tense
348	L	I gave my mother <u>gift</u> also	missing article
427	H	I start <u>write</u> about my dream house	verb inflection
433	A	Noor, you know what? It's just a dream so dream it. For me it's easier to write things which <u>is</u> not true	number agreement
510	C	<u>In</u> speaking of chicken	extra preposition

Moreover, users' messages are short concise and of a simple sentence structure. Only at rare occasion a compound sentence is found in the log such as message





Synchronous Written Computer-Mediated Communication Among.... —

number 180. This is probably due to the synchronous nature of the WCMC whereby users are under the pressure to respond immediately to avoid long poses.

In addition to these problems there were some mistakes in punctuation such as:

Table (4): Sample of punctuation mistakes in the Chat Log

Order ID	User ID	Message
20	A	You <u>Know</u> what there isn't <u>allotof</u> things here I mean there's no activities
28	C	<u>We should be more active, like we can hangout together or something</u> Mmmm sounds a nice idea but <u>how</u>
48	C	<u>Yeah why not its gonna improve our general knowledge</u> But <u>i</u> think we don't have spare time to read
51	A	I suggest <u>paulo coelho</u> the spy
106	A	Speaking of birds Do you <u>guys</u> have <u>pets</u>
290	F	<u>sarah</u> are you sleeping□

As seen from the table above punctuation mistakes vary. There is word spacing and capitalization as in 20, 8, 48, 51, and 290. The majority of messages lack end of sentence punctuation marks such as the full stop and question marks as in 106. In addition, the possessive (s) and short form apostrophe are almost always misplaced or are missing as in 48.

3.1.1.3 Vocabulary

This section pertains to the unsuitable or incorrect use of a vocabulary item to the sentence or context as in the following:

Table (5): Vocabulary errors in the Chat Log

Order ID	User ID	Message	Moe suitable expression or word
89	E	<u>Though I'm vegetarian but I will shoot you if you'</u> <u>re a bird</u> OMG ... Why all this <u>hardness</u> from the beginning!!!□	= harshness or cruelty
143	E	So what will u do if u become a <u>prince</u> one day?	= princess
161	C	You will <u>stay</u> my friend	keep being or continue being
250	E	<u>Then</u>□	= So or what's up

254	F	We should talk about <u>anything</u> important ☐	= something
261	F	today was so boring and <u>tired</u>	= exhausting

3.1.1.4 Typo Errors

A typographical error (often shortened to typo), also called misprint, is a mistake made in the typing process of printed material. Historically, this referred to mistakes in manual typing. The term includes errors due to mechanical failure or slips of the hand or finger, but excludes errors of ignorance, such as spelling errors, or the flip-flopping of words such as "than" and "then" (Wikipedia contributors 4, 2018). Hence, a number of typos were spotted in the log such as the following:

Table (6) Some Typo Errors from the Chat Log

Order ID	User ID	Message	Intended Word
5	C	Heyy <u>girlz</u>	= girls
88	C	And I'm watching <u>your</u> flying or I'm giving you a break from the cage ☐☐	= you
183	C	Like a <u>plan</u> ticket ☐	= plane
411	A	<u>The</u> keep being busy or they're shy which is excluded	= they
450	A	Heheheheh if you have a big house it's <u>man</u> that you're rich so just call a cleaning company	= mean
483	C	Also the <u>liens</u> might attack you at any moment☐☐	= aliens

Most of the time these errors went unnoticed and with no effect on communication. Only in 183, the user took the time to correct herself in a following message.

3.1.1.5 Transliteration

Unlike translation, which tells you the meaning of a word that is written in another language, transliteration only gives an idea of how the word is pronounced, by putting it in a familiar alphabet. It changes the letters from the word's original alphabet to similar-sounding letters in a different one (Wikipedia contributors 3, 2018). Thus, transliteration is the process of changing (letters, words, etc.) into corresponding characters of another alphabet or language. In this case words are transliterated from Arabic to English. Here are the transliterated words found in the chat log:

224	Miss you more <u>habebateee</u>	Arabic for <i>my beloved</i>
227	<u>Alhmudellah</u> ☺ ☐	Arabic for <i>thank God</i>
238	Ohh hi <u>hayati</u> how are you	Arabic for <i>my life</i>



3.1.2 WCMC Features

There are common chatting features users of a WCMC software such as “WhatsApp” usually use. The following are the major ones in the chat log under investigation

3.1.2.1 Abbreviations and Acronyms

It has been noted that there are two phenomena that can be presented under this label. These phenomena are: the use of abbreviations and acronyms. An abbreviation is typically a shortened form of words used to represent the whole (such as Dr. or Prof.). Abbreviations are merely a series of letters. Abbreviations are typically considered informal and should be carefully considered before including them in more formal writings. The process as explained by Crystal (1997:1) is a process of clipping. It is a “reduction of longer forms”. This could be the beginning, end, or both beginning and end, and it could be blends. Using abbreviations in WCMC is one of the common features and therefore there are numerous abbreviation dictionaries **online** to help users. However, it is worth mentioning that not all of the abbreviations used in the chat log are the standard or formal ones due to the casual nature of this type of communication. Users use informal abbreviations that bring them close to the spoken pronunciation. Here is a list of some of the abbreviations or clippings used in our chat log:

Table (7): Examples of abbreviations used in the Chat Log

Order ID	Message	Origin of Abbreviation
12	How <u>re u</u> guys	are you
25	<i>Heheheheh sleep allot guys</i> I'm going to meet <u>u</u> in <u>u</u> dream ☺ □	u = you u = your
135	I'm on a diet <u>cause</u> I'm too lazy to feed myself	cause = because
190	It will become normal as <u>ur</u> routine ...the travelling I mean	ur = your
225	How's <u>uni n</u> everything	uni= university n = and
481	<i>Hhhh realy but I think you'll have problem with breathing</i> □ Hhhhh of course but I will find a solution for this <u>prb</u>	prb = problem

An acronym, on the other hand, is a word or name that consists of the initial letters in a phrase or a word, usually individual letters as in *NATO* or *laser* and sometimes syllables as in *sitcom* or *motel* (ibid). Here is a list of the acronyms used in our chat log:



Table (8): Acronyms used in the Chat Log

Order ID	Message	Origin of Acronym
83	<u>OMG</u> <u>ok</u> □	OMG = Oh my God! OK = All correct
86	Lol why	LOL = Laugh out loud

Another example that does not fall precisely under abbreviation or acronym is the use of the symbol (&) to stand for the word “and” as in message number 488:

[*But don't forget to visit us between now & then*□]

3.1.2.2 Use of Colloquial English

“Slang, or ‘colloquial speech,’ describes words or phrases that are used instead of everyday terms among younger speakers and other groups with special interests” (Yule, 2014: 262). However, there is a need to distinguish between colloquialism and slang per say. The former has a more general sense that refers to everyday spoken or casual use of the language whereas the latter has a more specific reference pertaining to a variety that has to do with age. Hence, “slang refers to words used only by specific social groups, such as teenagers or soldiers. Colloquial language may include slang, but consists mostly of contractions or other informal words and phrases known to most native speakers of the language” (Wikipedia contributors1: 2018). Here are the instances of colloquialism used in the chat log:

Table (9): Some examples of the use of colloquial English

Order ID	Message	Interpretation
1	Hey	“Hey” and “Hi” are casual greetings
2	Hi □	
7	Hi <u>sweetie</u>	Words of endearment such “honey”, “baby”, and “sweety”
8	Hey <u>honey</u>	
23	Yeah you're right □ □	The use of “Yup” and “Yeah” for “yes”
43	Yeah why not it's <u>gonna</u> improve our general knowledge	The use of “gonna” for “going to”
50	<u>Strange</u> ? □ <u>Yeah</u> Be active □	“Yeah” = colloquial for “yes”
55	<u>I suggest paulo coelho the spy</u> About what ??	Incomplete questions
66	<u>Nony</u> ... we used to do that ... where re u now ??	Use of nicknames such a “Nony”, “Lolo”, “Doda”, and “Zoz”.
90	<u>Oh God</u> □□□	Informal colloquial expression





109	Help mee□□	Doubling or tripling the last letter of the wor o
115	<i>I have a bird</i> □ Oh really Sarah ? You have one?	Question in the form of a statement “Echo questions”
119	<i>Yup honey</i> □□. That’s <u>cute</u> □	“cute” is an equivalent of “awesome” which is a known colloquial word.
198	<i>Hello girls</i> Hey <u>baby</u> □	“baby” is equal to honey and sweet
216	Miss you heaps	This expression is colloquial
220	Hey <u>doda</u>	nickname
221	<i>You might be sleeping now it’s the timings differences</i> <u>Yaa</u> we know that	<i>Yaa = yes</i>
287	I’ll miss you <u>guys</u>	“guys”= friends or group of people
350	<u>Cool</u>	cool = awesome

As seen from the examples in the above table, the WCMC users resorted to some colloquial vocabulary and structures in their endeavor to sound – or in this case appear closer to native English speakers. Hence, there is the constant use of nicknames and words of endearment that are typical among female friends. In addition, there some striking colloquial expressions that are not taught academically but probably picked up from TV or films as the words “gonna”, and “cool”, and the constant use of echo questions – these are questions expressed in the form of a statement with an interrogative tone of voice or a question mark when written (See Liles, 1971: 51-52). Moreover, there is the use of the colloquial equivalents of the word “yes” which are “yup”, yeah” and “yaa”.

3.1.2.3 Use of Emojis

They are ideograms and smileys used in electronic messages and web pages. Emojis exist in various genres, including facial expressions, common objects, places and types of weather, and animals. They are much like emoticons, but emojis are actual pictures instead of typographics. The word “emoji” is Japanese for pictograph. The resemblance to the English words emotion and emoticon is purely coincidental. Originating on Japanese mobile phones in 1999, emoji became increasingly popular worldwide in the 2010s after being added to several mobile operating systems (Wikipedia contributors 2: 2018).

“WhatsApp” provides a large selection of emojis for its users. Hence, as seen in the chat log under study, users have extensively used this feature for a number of purposes. **For example as seen in Appendix (1) Table (10)** the use of emojis is quite extensive; however, the type of emojis is limited. The software offers a large variety for its user but the chat log shows that the users have limited themselves to

the first, namely “facial expressions” and only at rare occasions we can see the hand gestures, hearts, item of clothing, or people emojis. This is probably due to the pressure of time to send an immediate response, so the users relied heavily on the first type of emojis that appear on their phones, namely the facial expressions. Emojis as is evident from the chat log have served their purpose as a reflection of one’s feelings and sometimes thoughts. Moreover, it seems that users are using them as an end notation system that is more explicit than the classical limited punctuation marks.

3.1.2.4 Use of Quote-Reply

The Quote Reply is an easy way to reply to a particular message on “WhatsApp” while chatting privately or in a group. It is a very user-friendly option on this application program. The focus of this section is not to give the details or steps on how to make a quote-reply. The purpose here is to investigate how this feature was used by the WCMC chat users to ease the process of communication and avoid misunderstanding and cut of communication. Here are some examples. The quoted messages are highlighted :

15	E	<i>So what are going to do in the weekend</i> Mmmm I’m thinking about that.. so boring
24	C	<i>I will try to study something</i> □ Hhh great

The actual quote message on “WhatsApp” will show not only the message itself but the sender’s name or phone number and time of posting it. As seen from the examples above, users tend to extensively use the quote-reply feature when multiple users are chatting at the same time and when there is more than one topic under discussion. Even in the most compact session with multi users and heated discussion, the users managed to communicate smoothly with no cut of communication due to this feature.

3.1.2.5 Interjections

The interjection is a part of speech which is more commonly used in informal language than in formal writing or speech. Basically, the function of interjections is to express emotions or sudden bursts of feelings. They can express a wide variety of emotions such as: excitement, joy, surprise, or disgust. (Crystal, 1997:200)

An interjection does not relate grammatically to the other parts of the sentence, and it does not help the reader understand the relationship between words and phrases in the sentence. Interjections are rarely used in academic or formal writing, but are common in fiction or artistic writing in addition to emails and texting. (Your Dictionary 2018 and Part of Speech, 2018).

Although interjections may seem trivial, the reality is that this part of speech is very important because it can sometimes be difficult to express emotions in written language. Emojis may not be appropriate or possible under certain circumstances, so using interjections proves to be a more viable option (Part of Speech, 2018). See



Appendix (2) table (11) for examples of the most commonly interjections used in the chat log under investigation. Our users have used a wide range of interjections that enriched their communication with a variety of ideas and feelings. The only remark is that they always missed the proper punctuation that goes at the end of an interjection which is the exclamation mark. Users have used almost all types of interjections such as sound as in messages from 1 to 269. There are also instances of using nouns as in message 277 and 308. There are also adjectives as “nice” in 269, “really” in 331, and “cool” in 350. Interjections as seen above took the form of single words in addition to phrases.

3.1.3 Discourse Structure

The study and analysis of the chat log discourse structure requires topic tracking or thread indexing that was explained and done earlier as seen in details in Appendix (1). The indexing process was done manually contrary to Holmer (2008) who developed a software to do that automatically. The purpose of this section is to illustrate the various discourse thread structures used in different sessions and their related communication patterns. “WhatsApp” program provides a timeline of the chat log which makes it easier to identify each session by its date. The following table presents the essential facts of every session in the chat log under investigation.

Table (12): Details of Chat Log Sessions

No. of Session	Date	Users	No. of Messages per session	Messages from - to
1 st	March 7	Eight users A /B/C/D/E/F/G/H	214	from 1 to 214
2 nd	March 8	Four users I / J / B / K	26	from 215 to 241
3 rd	March 9	Three users B / A / J	3	from 242 to 244
4 th	March 14	Four user A / E / F / L	116	from 245 to 361
5 th	March 15	One user C	5	from 302 to 306
6 th	March 16	One user A	1	307
7 th	March 17	Two users A / K	12	from 308 to 320
8 th	March 21	five users A/ K/ E/ C / L	40	from 321 to 361
9 th	March 24	Two users A / C	32	from 361 to 393
10 th	March 29	Four users A /C/ H /E	127	from 394 to 521



Synchronous Written Computer-Mediated Communication Among.... —

The sessions are going to be analyzed from the shortest session to the longest in terms of number of messages as follows:


- a. The sixth session: It has only one message (ID No. 307) that is considered a “tail” as explained in the theoretical background above since it comes as a reply to a message in a previous session and has no further replies.

Order ID	Message Indexing	User ID	Text
307	6.2.1.3.1	A	Thanks dear

As seen above from the message indexing, this message is related to the sixth thread in the previous session.

- b. The third session: It has three participants and three messages only. There is only one seed highlighted in bold type and underlined and two replies. As seen below:

Table (13): Communication Pattern of the 3rd Session

Order ID	Referencing	Message Indexing	User ID	Message
242		1	B	<u>Hello every body</u>
243		1.1	A	Helllo
244		1.2	J	God evening

As seen from the referencing arrows both messages (243) and (244) are replies to the seed in message (242). All three messages form a thread. There is no further communication in this session. The communication pattern here is linear and simple as there are no overlapping replies and multiple threads.

- c. The fifth session: It is similar to the 6th session in A above in that it has one participant namely (C) who sent five messages as seen in Table (14) Appendix (3). The first is an isolated message since it is left with no reply as no other user participated in this chatting session. The second one is a chain that has one comment made by the same participant herself as is clearly seen from the message indexing in Table (14). The last two messages are replies to a previous session from the day before. No communication pattern is given here since there is only one user involved.

- d. The seventh session: Here we have only two users who chatted for a short time posting (12) messages only as seen in Appendix (4) Table (15) and the communication pattern is better seen in table (16). There is no overlap of the discussion threads as can be clearly seen from the message indexing. Both threads where initiated by the same user and the sequence of messages is running smoothly



with no overlap of discussion topics. The pattern is linear and simple. Consequently, the two users did not have to use the feature of quote-reply.

e. The second session: Here we have four users and (26) messages (see Appendix 5 Table 17 and Table 18). As seen from the message indexing that the responses to the first five seeds are overlapping as the four users are chatting simultaneously. No apparent cut of communication since the topics and responses are short and general. For the same reason users did not feel the need to quote-reply. The last two threads are communicated by only two users as the others have left the session and there is no overlap here. Colour scheme is used in the first three threads to show message overlap. Colour is not used with the other threads since they ran consecutively with no overlap.

f. The ninth session: Similar to (D) above, this session has only two participants as seen in Appendix (6) Table (19). Again in such sessions as seen before there is no overlap of topics and the sequence of threads with their forks of sub-topics and sub-sub topics flow in succession with no cut of communication or overlap. As clearly seen in (20) Appendix (6) no overlap in messages is found since the session took the form of give and take sequence. Hence, there is no need to use the colour scheme to isolate the threads.

g. The eighth session: Here, we have four users chatting together for the majority of the session and later joined by a fifth user after three went silent. The first thread is the usual greeting, and replies on it **which** continued every time a user joins the session. The second thread has a single tail and users did not interact with it. The third thread is quite interesting because it attracted an intense give and take between the users as can be visibly seen in tables (21) and (22) Appendix (7) by the density of quote-replies and number of sub-topics and sub-subtopics forking from it. By the fourth thread three users stopped chatting and only one stayed who was joined by a fifth user. Their communication dealt with three threads that went smoothly with no overlap as seen before with any binary interaction.

h. Session four and ten are quite similar since both have four users each which make the pattern similar. There are a number of threads and the four users are chatting together which leads to the overlap of topics. However, due to the use of quote-reply, users were able to continue chatting through what often seems an incoherent text. The complete chat pattern of each can be seen in Appendix (8). It is noted from the patterns that forks overlap, and even replies to the forks of a particular seed in a single thread overlap because there are more than two users at hand. The colour scheme helps to isolate the threads from each other but it cannot help in highlighting the overlap of replies in a particular dense thread.

i. The first session is the longest in terms of number of messages and participants. There are eight users who exchanged a total of 214 messages. As expected because of the density of participants and length of the session, threads were forked into multiple topics and subtopics such as the 11th thread that was forked nine times. The quote-reply feature was extensively used to avoid misunderstanding as threads



and topics kept overlapping. If we trace the thread from its beginning, one can see that most users took an immediate interest in it in spite the fact that a new thread was posted soon after it. Users kept responding and interacting with a sequence of subtopics that reached a density of up to nine layers of subsidiary topics as seen in messages 193 to 195.

4. Conclusion

Out of the observations which have been cited in this paper, we may come up with the following conclusions:

- i. The EFL WCMC under investigation proved to be rich with a number of linguistic features that could be observed by fellow linguists and educators as having significant value. In spite of errors pertaining to the linguistic aspect of the chat log, users were able to work their way around them to achieve an overall smooth communication experience.
- ii. This can be traced to two reasons: First, the nature of WCMC which allows users to read posted messages carefully and respond at leisure. Second, “WhatsApp” is an application programme that provides its users with interesting features that help communication by far.
- iii. Features such as emojis, auto correction, and quote-reply were used to help with the communication. Hence, these observations refute the initial hypothesis that users are expected to face communication breakdown.
- iv. Going through the discourse structure analysis mentioned above; it becomes evident that users did not follow a simple direct give- and-take interaction pattern as expected in the hypothesis. The discourse patterns of the ten sessions refute this hypothesis since the analysis proved the use of two general patterns pertaining to the number of users per session and intensity of participation. Hence, there is the direct linear with seed, chains and tails that predominates the single and dual users’ session and there is the more complex pattern whereby threads are rich with forks and overlapping message trails. The later dominates the multi-user sessions as seen in the analysis.
- v. Moreover, WCMC proved to help EFL users by building their confidence in using English. Even weak users of English are encouraged to participate since the WCMC provides a monitor free environment; in addition to the nature of such communication that allows users to check their messages before pressing send and to take their time in reading posted messages. This point highlights the significant pedagogical value of such medium of communication that provides learners with the opportunity to practice the language outside the classroom in a constructive way.

5. Recommendations

An additional area of interest that was not dealt with in this paper is the study of message timeline that is provided by “Whatsup” but was not imported or investigated in relation to users’ errors and communication problems. Therefore, it is recommended that a future investigation to be made pertaining to the temporal





Synchronous Written Computer-Mediated Communication Among.... —

aspect and turn taking. Another future project is to run the imported chat log through Holmer's (2008) software and see what patterns and figures result from it. Further, investigation is also desirable in the area of communication strategies that fell outside the scope of this paper.

References:

Corder, S.P. (1981). **The Significance of Learner 's Errors**. Oxford: Oxford University Press.

Cornelius, C., & Boos, M. (2003). "Enhancing mutual understanding in synchronous computer-mediated communication by training: Trade-offs in judgmental tasks." **Communication Research**, 30(2), 147-177.

Crystal, David. (1997). **Dictionary of Linguistics and Phonetics**. 4th Ed. Oxford: Blackwell Publishers Inc.

Herring, Susan C. (2004). "Computer-Mediated Discourse Analysis: An Approach to Researching Online Behavior." Barab, S. A., Kling, R., & Gray, J. H. (Eds.). (2004). **Designing for Virtual Communities in the Service of Learning** (pp. 338-376). New York: Cambridge University Press.

Herring, S. C., & Kurtz, A. J. (2006). "Visualizing dynamic topic analysis". **Proceedings of CHI'06**. New York: ACM Press.

Holmer, T. (2008). "Discourse Structure Analysis of Chat Communication." **Language@Internet**, 5, article 10. (urn:nbn:de:0009-7-16339)

Jody and Desia, M. Christina (2008): "Communication Strategies for Instant Messaging and Chat Reference Services". Published on line. 22 October, 2008

Liles, Bruce L. 1971. **An Introductory Transformational Grammar**. New Jersey : Prentice-Hall.

Part of Speech. 2018. "Interjections". <http://partofspeech.org/interjection/>

Rafaeli, S., & Sudweeks, F. (1997). "Networked interactivity" . **Journal of Computer-Mediated Communication**, 2(4). Retrieved August 22, 2008 from <http://jcmc.indiana.edu/vol2/issue4/rafaeli.sudweeks.html>

Shi, S., Mishra, P., Bonk, C. J., Tan, S., & Zhao, Y. (2006). "Thread theory: A framework applied to content analysis of synchronous computer mediated communication data". **International Journal of Instructional Technology and Distance Learning**, 3(3), 19-38.

Toyoda, Etsuko and Richard Harrison. (2002) "Categorization of Text Chat Communication between Learners and Native Speakers of Japanese". **Language learning and Technology**. Vol. 6, No. 1, January 2002, pp. 82-99.

Wikipedia contributors 1. (6 September 2018 16:37 UTC). "Colloquialism". :<https://en.wikipedia.org/w/index.php?title=Colloquialism&oldid=858361953>

Wikipedia contributors 2. 10 September 2018 02:53 UTC. "Emoji". <https://en.wikipedia.org/w/index.php?title=Emoji&oldid=858858674>

Wikipedia contributors 3. (25 July 2018 09:43 UTC). "Transliteration" Wikipedia,

The Free Encyclopedia.

<https://en.wikipedia.org/w/index.php?title=Transliteration&oldid=851903734>

Wikipedia contributors 4. (5 September 2018 00:56 UTC). "Typographical Error"

Wikipedia, The Free Encyclopedia.

https://en.wikipedia.org/w/index.php?title=Typographical_error&oldid=858093813

Yanguas, Iñigo.(2010). "Oral Computer-Mediated Interaction between L2 Learners: It's about Timee!" **Language Learning & Technology**. October 2010, Volume 14, Number 3 pp. 72–93 <http://ilt.msu.edu/vol14num3/yanguas.pdf>

Your Dictionary. 2018. "Interjection". <http://grammar.yourdictionary.com/parts-of-speech/interjections/what-is-an-interjection.html>

Yule, George. (2014). **The Study of Language**.5th Ed. Cambridge: Cambridge University Press.

Appendices

Appendix (1)

Table (10) Common Emoji Genres Used in the chat Log

Order ID	Message	Interpretation
2	Hi 🙋	It emphasizes the meaning of salute.
4	am fine 😊	To add the feeling of affection to others
18	<i>Heheheheh sleep allot guys</i> OMG 🤔	This is the laugh out loud emoji to express the user's feeling
22	I will try to study something 🙋	Used to express feeling and as an end of message punctuation mark
23	Yeah you're right 🙋 🙋	to express embarrassment and heart ache
33	🙋 🙋	the emoji is used to replace the whole message
35	<i>Heheheh also we going to try to be more active</i> Seriously 🙋	the emoji here works better than an exclamation mark since it expresses closer how the user feels
45	Book ? about what 🙋	replaces the question mark
64	I think no one want to imagine with me 🙋	end notation and also the feeling
72	A bird 🐦	surprise
127	🙋🙋🙋🙋	emoji as a response
141	I just got the honor shield 😊 🙋 🙋	feeling of happiness and pride
171	<i>Nice phrase</i> 🙋 Yup honey 🙋	again the emoji as a reflection of thought and feeling and at the same



		time an end notation
175	But I like money more ☹ ☹ ☹ ☹+ 1	the user is trying to express a complex thought with emojis and math symbols
193	You mean I'll get bored with the days passing ☹ Yup honey ☹	to express feeling of upset
337	He bought me a scarf ☹	as a symbol of one's thought

Appendix (2)

Table (11) Common Interjections Used in the Chat Log

Oder ID	User ID	Message
1	A	Hey
2	B	Hi ☹
15	E	So what are going to do in the weekend Mmmm I'm thinking about that.. so boring
17	A	Heheheheh sleep allot guys
27	E	I will try to study something ☹ Wow .. u re so clever honey
70	E	Name something ☹☹ HMMMMMMMM.... Like I'm a bird now ok?
71	C	I didn't read it yet but my sister highly recommended it Aha you once told me
91	G	Hhhhhiiii
269	E	I'm in Baghdad Wow....nice
277	E	To attend my brother's engagement party ☹ Congratulations ☹
308	A	Hello everyone!
331	A	Really? What was it?
350	A	Cool

Appendix (3)

Table (14) Communication Pattern of the Fifth Session

Order ID	Message Indexing	User ID	Message
302	1	C	<u>Good morning girls</u>
303	2	C	<u>I've just woke up</u>
304	2.1	C	I spent all the night sleeping as if I weren't



			sleeping for a month□□
305	6.2.1.3	C	To attend my brother's engagement party□ Congratulations honey□ all the best for your brother□□
306	6.2.1.4	C	Enjoy your time□□

Appendix (4)

Table (15) Communication Pattern of the Seventh Session

Order ID	Message Indexing	User ID	Message
308	<u>1</u>	A	<u>Hello everyone!</u>
309	1.1	K	Hello Mery
310	1.2	K	Miss you soooo much
311	1.2.1	A	Hello Duaa miss you too
312	<u>2</u>	A	<u>What have you done during my absence?</u>
313	2.1	K	Grammar and an essay
314	2.1.1	K	The Mrs explain a new topic
315	2.1.1.1	A	You should explain it to me cause you suppose to be my friend ☺ □
316	2.1.1.2	K	□
317	2.1.1.3	K	I'm absent too
318	2.1.1.4	A	□ □ □ □
319	2.1.1.5	A	I attend just in grammar lecture
320	2.1.1.6		□

Table (16) Two Users' Chatting Pattern / Session (7)

1			
	1.1		
	1.2		
		1.2.1	
2			
	2.1		
		2.1.1	
			2.1.1.1
			2.1.1.2
			2.1.1.3
			2.1.1.4
			2.1.1.5
			2.1.1.6



Appendix (5)

Table (17) Communication Pattern of the Second Session

Order ID	Message Indexing	User ID	Message
215	1	I	<u>Hi girls</u>
216	2	I	<u>Miss you heaps</u>
217	3	I	<u>You might be sleeping now it's the timings differences</u>
218	1.1	J	Hi lolo
219	2.1		Miss you too ☐
220	1.2	I	Hey doda
221	3.1	I	<i>You might be sleeping now it's the timings differences</i> Yaa we know that
222	1.3	B	Hey lolo ☐
223	2.2	B	Miss you honey
224	2.3	I	Miss you more habebateee
225	4	I	<u>How's uni n everything</u>
226	4.1	J	Everything is fine ☐
227	4.2	I	Alhmdellah ☺ ☐
228	5	B	<u>good morning everybody</u>
229	5.1	B	☐
230	5.2	K	Good morning guys
231	5.3	K	☐☐
232	6	K	<u>Leen how are you ☐</u>
233	6.1	K	Mess you so much
234	6.2	I	Hi
235	7	I	<u>Who's this?</u>
236	7.1	K	Duaa Abdul
237	7.2	K	☐
238	7.1.1	I	Ohh hi hayati how are you
239	7.1.1.1	K	I'm fine
240	7.1.3	I	Miss you soooo much
241	7.1.3.1	K	<i>Miss you soooo much</i> Me too☐



Table (18) Four Users' Chatting Pattern of the Second Session

1			
2			
3			
	1.1		
	2.1		
	1.2		
	3.1		
	1.3		
	2.2		
	2.3		
4			
	4.1		
	4.2		
5			
	5.1		
	5.2		
	5.3		
6			
	6.1		
	6.2		
7			
	7.1		
	7.2		
		7.1.1	
			7.1.1.1
	7.3		
		7.3.1	

Appendix (6)

Table (19) Communication Pattern of the Ninth Session

Order	Message Indexing	User ID	Message
362	1	A	<u>Hello everyone!</u>
363	1.1	C	Hey Mary
364	1.2	C	How are you
365	1.2.1	A	I'm fine
366	1.2.2	A	And you?
367	1.2.2.1	C	I'm good
368	2	C	<u>But it so boring</u> ☹
369	2.1	A	The Daily routine is killing me





370	2.1.1	C	Me too
371	2.1.2	C	I'm always thinking of some change but I don't know from where should I start
372	3	A	<u>You now today a girl from the first stage came and asked me if I could help her</u>
373	3.1	C	Okay?
374	3.2	A	With phonetic
375	3.2.1	C	Yeah such a difficult material
376	3.2.2	A	So we can teach them I mean we can volunteer
377	3.2.2.1	C	Yeah why not
378	3.2.2.2		I'm always willing for such things
379	4	A	<u>Also we can volunteer outside the college</u>
380	4.1	C	Mmm you mean doing things other than teaching?
381	4.1.1	A	Yep
382	4.2	C	I'm thinking of going to cancer children hospital
383	4.2.1	C	We can take toys also we can read stories for them
384	5	A	<u>We can make a list</u>
385	4.2.2	C	What do you think
386	5.1	C	Yeah we should
387	5.2	A	List of interesting things and we could do it to break the routine
388	5.2.1	C	interesting things?
389	5.2.2	C	What kind of things you mean
390	5.2.3	C	I mean do you have a certain idea?
391	5.2.4	C	Certain things to do or it's just an idea□
392	5.2.4.1	A	We will think about it.....□
393	5.2.4.1.1	C	Okay□