Interaction patterns in WhatsApp conversation in EFL classroom: pedagogical implications

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Abstract

A relatively small data of online conversation (7740 words) on a mobile phone application WhatsApp by two EFL groups were analysed to examine the types and quality of online interaction in EFL context. The analysis focused on three main categories, i.e. nature of interaction, quality of interaction and quality of language of interaction, to assess if using the application in classroom setting provided enhanced learning experience with greater support and exposure to target language. We categorised interaction types in the text data to determine the variety of interaction and used the numerical data to scaffold descriptive analysis of the quality of interaction as well as language. Analysis of the data revealed that the participants preferred using the application more for administrative communication, rather than discussing the subject matter and metalanguage, mainly due to unplanned use of the application, and the students therefore missing the opportunity to process the target language in real life. The findings referred to conversational theory in relation to theoretical and pedagogical implication of using WhatsApp more effectively, for enhanced learning opportunities in EFL classroom.

Keywords:

WhatsApp, MALL, pedagogical instructions, EFL, conversational theory

1 Introduction

Use of technology in language teaching in the form of computer assisted language learning (CALL) has not been innovative, which, as Burston (2013) observes, has logically led to mobile assisted language learning (MALL). Particularly, smart phone applications have introduced an infinite horizon in academia, both from teaching and learning perspectives, and a number of studies (see e.g. Ahmed, 2012; Ahmed *et al*., 2013; Beatty, 2013; Chinnery, 2006; Kukulska-Hulme, 2009; Pegrum, 2014; Traxler, 2005; Traxler and Kukulska-Hulme, 2007) have emphasized the need to incorporate MALL in curriculum to better exploit the most commonly used devices for boosted learning experience with greater level of learner engagement as well as motivation. Considering the rapid increase in the use of mobile phone and enhanced functions of the device, a significant volume of work in material design has been done in the forms of mobile phone applications, e.g. Socrative, WhatsApp, MindGenius, etc. which are commonly being used in academic context. However, institutes and curriculum developers still need to explore how to integrate technologies in curriculum for more effective learning (Collins & Halverson, 2009), which implies familiarity with strategies of using technologies efficiently for material developing and classroom teaching

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In line with rising awareness regarding technology-integration in education, Saudi Arabian universities have immensely encouraged the use of technology for pedagogical purposes. The use of mobile phones among the young Saudi generation is particularly popular in the region, and a number of EFL teachers are using various smart phone applications regularly for academic purposes. The Saudi government has also launched several projects such as the National Centre for E-Learning and Distance Education, JUSUR (a learning management system), Saudi Digital Library and Saudi Electronic University (Al-Shehri, 2011) in order to encourage maximum use of technology, and to keep pace with the global pedagogical advancement. In this respect, a number of Saudi universities have also introduced distance and mobile teaching and learning practices (Al-Fahad, 2009; Aljuaid *et al*., Altameem, 2011). In this respect, Fogg (2010) maintains that despite the available supporting evidence that technology largely influences the youth in terms of social development, as a teacher it is vital to be aware of how these technologies could affect the academic development of young people. In this study, we aim to explore the way a mobile phone application WhatsApp is being used in the academic context in a Saudi university. Through this research paper, we aim to contribute to the area of MALL for communication in an EFL setting, under the broader umbrella of technological integration in education, by drawing on how the use of WhatsApp can be improved, particularly in the context of this study, for various academic purposes and how utilizing applications such as WhatsApp might be used for pedagogical implication.

2 Statement of the Problem

Having observed the use of mobile phones as an extremely popular means of communication among the students in daily life, as researchers we found it inevitable to evaluate whether using mobile phone as a learning tool is worth investing teaching and learning time in the particular context of the English Language Institute (henceforth the ELI) of King Abdulaziz University (KAU) in Saudi Arabia. In daily professional routine, it was also observed that a number of teachers at the ELI were able to integrate mobile phones and various applications to make their lessons more motivating for students, which emphasizes to explore how far these teachers could successfully integrate their pedagogical expertise of MALL in the curriculum. WhatsApp being one of the most popular and widely used mobile phone application, we also found it useful to examine the language type and use in WhatsApp conversation to gain information on the impact of the conversed language in English language learning as well as the current and potential use of WhatsApp and similar smart phone applications.

3 Research questions and the expected outcome

We intend to address the knowledge gap of studying the use of the application of WhatsApp (henceforth the application) as an interactive pedagogical tool between teacher and students and among students in a Saudi Arabian university to seek answer to three major questions.

1. What was the nature of interaction made via the application (nature of interaction)?
2. How far the interaction made via the application was effective in terms of real life communication in L2 for academic purposes (quality of interaction)?
3. What was the quality of the language used in the exchanges made via the application (quality of language)?

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Figure 1Thematic framework

Figure 3.1 Thematic Analysis

For question 1, we categorised the seven purposes the application has been used for to determine the ratio of each category in proportion with the overall categories emerged from the data. To gain insight into the effectiveness of the interaction (Question 2), we focused on the turn taking patterns and the appropriateness of the responses to determine if the communication was meaningful, with a goal in mind or just unorganised conversational strings. The third question gained some probing by looking at the accurate use of language, variety of structures used by the participants and tendency of using L1/L2 in the exchanges. We intend to use the information gained through these three research questions, first to determine how effectively the application has been used in the given academic context, and secondly to make suggestions for enhanced improvement in using technology in classroom more effectively and successfully (Figure 3.1 above).

4 Related literature

This section, through a review of related literature, aims to rationalise the potential of mobile phone applications in language learning to raise awareness how the language use in such applications has utility for all the concerned stakeholders in pedagogical sphere – policy makers, material developers, teachers and learners. Mobile learning is rapidly becoming an essential component in academic contexts across the globe, and the concept of MALL has learning now assumed a more serious form than ever. Pegrum (2014) classifies MALL in four interconnected strands: MALL for content, for tutorials, for creation and for communication. MALL tutorial is mainly behavioural in nature with isolated exercises of pronunciation, vocabulary or grammar drill, games and quizzes whereas MALL Tutorial encourages autonomous learning beyond the restraints of pedagogical setting in formal classroom by providing learning opportunities based on learners' specific needs and context (Amer, 2010; Rinehart, 2012). MALL for content concentrates on the technologically integrated delivery of content, and being the simplest and easiest strand, has been the focus of most of the studies conducted in the field of MALL in ESL (Diaz, 2010). Major examples of MALL for content include e-magazines, e-books, applications for exam preparation, translation applications and quiz based courses which have been a major focus of various studies in this field (see Amer, 2010; Chen and Hsu, 2008; Dempster, 2011; Kobayashi, 2006). MALL content and tutorial could be viewed as complementary to each other because they may potentially serve both technological and pedagogical purposes for language teaching by delivering learning content and by providing opportunities to practise the content. Pegrum (2014) views MALL for communication as a means of a breakthrough into more fully communicative and sociocultural territory. Unlike MALL for content and tutorial, MALL for communication does not encourage autonomous or independent learning.

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MALL creation tends to require teacher support and feedback in a constructivist or constructionist process, whereas MALL communication aims to engage learners intermingling with teachers, peers or other target language speakers, which can stimulate better performance, reinforce a focus on communicative purpose, put a premium on sociocultural competence, and emphasize the variety and gravity of feedback received (Pegrum, 2014). The methods used by MALL communication include digital polling, social media websites and applications combining synchronous and asynchronous channels such as Twitter (Mork, 2009) and Facebook (Al-Shehri, 2011) and augmented reality gaming ("Mentira," n.d.).

In relation to MALL in EFL classroom, one of the smart phone applications WhatsApp offers huge potential to maximise the chances of exposure to the target language in EFL setting for a number of reasons. One reason for its popularity among the users is that it has become a substitute of text messaging with free and instant delivery of communication to an audience irrespective of size. It is user friendly, reliable and has a number of useful options to form small and large groups to share texts, images and videos.

Few studies have particularly explored the potential of WhatsApp in EFL context (e.g. Dunlap, 2006; Alsaleem, 2014; Man, 2014), MALL for communicative and task-based learning still needs to be fully exploited inside and outside the EFL classroom. Man has studied how the application can successfully be used. To our knowledge, currently, there is insignificant research work on academically exploiting technology, including mobile devices as well as smart phone applications beyond MALL content and MALL tutorial perspectives, particularly in the Saudi EFL context. Most of the studies conducted in Saudi Arabia to explore the potential of MALL have identical and superficial focus on the perceptions and attitudes of users towards mobile learning (e.g. see Al-Fahad, 2009; Seliaman and Al-Turki, 2012; Nassuora, 2013; Ahmad, 2013) rather than how mobile learning is influenced or can be positively enhanced in an academic context. Unlike a number of previous research work in the area, we focus on how the current practices could be improved in order to make learning experience more effective and enjoyable.

At theoretical level, the study has underlying inspiration from conversational theory with Pask's (1975) premise that knowledge as an object distinct from learner–teacher does not exist, rather reliable knowledge subsists, is produced, and evolves in action-grounded conversations where learners always incorporate internalized teachers, and teachers always incorporate internalized learners to help construct each other's knowledge. Although, the theory was launched quite long ago, we found it still relevant and useful to be applied in our case.

5 The present study

This study was designed mainly as a descriptive research model. We used simple quantitative analysis to highlight the findings merged from the quantitative data to investigate the ways the application was used in EFL context. By using insights from a qualitative perspective supported by coding and frequency count we hope to explore the gap in the intended research area to make insightful recommendations for practitioners working in similar contexts. We decided not to use intensive statistical analysis, as the aim of our study, as mentioned in 1.1, was to perceive how the application was used in an EFL classroom and the sophisticated

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statistical applications did not seem to contribute to affect the findings explored through descriptive research method.

Secondly, the interpretations gained through sophisticated statistical program have greater tendency to generalise the findings at a wider level whereas the scope of this study is more qualitative, and with a focus on limited due to the small data size with a number of contextual variables that restricts to largely generalise the findings (Figure 3.1).

Coding was a useful technique that helped channelizing the discussion meaningfully. Inspired by the concept of Technology Pedagogy Content Knowledge (TPACK) we hypothesised that though there is technological awareness among the ELI teachers, this awareness lacks systematic support to integrate technology and pedagogy to gain enhanced benefits from both. The same hypothesis led us to explore the data in hand in order to determine the objectives achieved by the participants using the application as a means of communication. We found coding the data useful because it not only allows study to be repeated and validated but also allows comparing with other similar studies.

5.1 The data

During an in-house conference, we had an opportunity to look at the data comprised of group conversation made via the application by two groups of Saudi students on a foundation course at a Saudi University. We found it meaning full in several ways as to examine the discourse construction, interaction patterns and examining the impact of English language use in real life for authentic communication in the context of EFL learning. The two teachers, who used the application in the classroom continuously over a complete module of 7 weeks, gave their consent to provide the anonymous conversation. Before sharing the files with the researchers of this project, the teachers eliminated all the names of the students and any words or signs that could refer to the identity of the students, the teacher/s or their respective sections, in order to ensure the privacy of the group participants.

Having the conversation data available for research, we selected the same conversation of two groups (pre-intermediate and intermediate level corresponding to the Common European Framework of References for Languages (CEFR B1 and B2 respectively) was selected as primary data. The conversation data of both groups constituted 7740 words including timestamps with each message, but excluding messages related to file attachment, image/video sharing, participants added/removed. The purpose of eliminating such texts was to determine the actual size of the texts for frequency count to gain a maximum accurate percentage of various sub/categories. Though sharing images, videos and files also inform on the use of the application, it was not possible to define the nature of the files, images and videos and how far they were relevant, except for a few instances where the sender shared information on the attached/shared file. There were only 3-4 video links nevertheless.

Considering that the data has already been shared publicly, and further steps have been taken to ensure the anonymity of all the participants involved, it was reasonable to use the data in this analytical study as an open document. There is no justification why these two levels were selected, because there were no other data of similar groups available, leaving us with no choice of having data from similar levels. Furthermore, we look at the data as one unit as well as individually to highlight if any significant differences occur solely due to the discrepancy

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in students' competence level. However, by looking at the groups individually should not be taken for as comparison of the groups at any level because there are no justifiable grounds for any such comparison. Our selected methodology to analyse the data made the data articulate for interpretation, and we hope that further studies at wider scale could be replicated to validate our findings.

5.2 The participants

The participants of the conversation in the data are native Arabic speaking Saudi nationals (age group 19-22), studying their university foundation course, with 25 in each group. The majority of the students come from mainstream state schools with teacher centred backgrounds, and with little knowledge of everyday English. Group 2 is at an intermediate level (CEFR B2), which is the highest level taught in the foundation course at the ELI. Hence, this group is naturally more competent in spoken and written English than other students in Group 1 (CEFR 1). However, this discrepancy of competence between the two levels does not significantly affect the findings because our main concern was to evaluate how the application was used rather than how accurately both groups corresponded in comparison to each other.

The teachers working with these students are non-native English teachers with a master's degree in TESOL, and at least three years' experience of teaching university foundation courses. Both teachers and students are regular users of mobile phones as well as WhatsApp, and they voluntarily chose to use the application as a regular means of communication with their class fellows and teachers in and outside the classroom. At the ELI, use of a multimedia projector, an electronic version of the textbook and using some other software at the individuals' discretion is not innovative, and the university apparently encourages integrating technology in everyday lessons, hence using mobile phones to support academic goals was innovative and interesting for students, but not totally divorced from the current pedagogical culture of the institute.

5.3 Procedure

In order to gain insight into the aspects mentioned above, we analysed the data of the conversation data of fifty EFL learners to determine the nature and quality of interaction as well as the quality of language used by the participants. Owing to the nature of data available, we restricted the scope of this study only to the use of WhatsApp as a means of communication in and outside of the classroom for academic purposes. We used the following thematic framework to get information from the data on various perspectives (Figure 3.1 above). The section on data discussion analyses the data following the same thematic framework, by elaborating on each sub theme individually. Initially, the data was specified by eliminating administrative messages generated by the application itself. Such messages include adding/removing users, notices of files and video sharing etc. At the second stage the data was numbered in terms of turns, which refers to the number of messages any participant made, irrespective of the topic and completeness of the message. Turns were determined by timestamps e.g. if there were 100 timestamps in one of the data, it implies that 100 turns were taken by the participants. These turns varied in length ranging from a single emoticon to a series of continuous sentences or a short paragraph by one participant with one timestamp. On the contrary, the term of 'exchange' in this paper refers to a complete message communicated by a participant on a specific topic. Turns have numerical or quantitative value

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highlighting how actively the users participated in the conversation, whereas exchanges are qualitative in nature to explore the type and quality of communication made by the participants. The former focuses on the ratio of contribution made to the topic/s in conversation, whereas the latter is more concentrated on discovering the value of communication within the context.

At the third stage, the data was categorised in accordance with the thematic framework (Figure 3.1 above) in tabular form. Each theme with respective sub-categories was entered in tables for qualitative analysis of the language at micro level, and the results were transferred onto graphs and charts to illustrate the data discussion.

In order to make frequency count of various categories, turn taking and exchanges, first each type of category was entered in tabular form. For example, to determine the purposes the application was used for, the following Table 5.1 was designed:

Table 5.1 Frequency and categories of turn taking

Category	*Frequency Count*	*Percentage*
Instructions	*15*	*9%*
Content delivery	*1*	*1%*
Clarifications	*57*	*35%*
Exchange of ideas	*19*	*12%*
Socializing	*14*	*9%*
Administrative	*49*	*30%*
Academic reminders	*7*	*4%*

This table shows that in the data, the application has been used 15 times to give instructions (by the teachers) whereas only one time has been used for content delivery which means that 9% and 1 % of the data have been used for giving instructions and content delivery respectively by the teachers whereas the category of *Clarification*s made 35% of the total categories the application was used. However, pie and graph charts were preferred in the data discussion as they reflect the data to readers more clearly.

6 Data analysis

In order to analyse the data at micro level, the data was categorised in tabular form according to a thematic framework (Figure 1 above) by entering the data in different columns such as data used to give instructions, to socialize, to exchange ideas/tips, use of Arabic/English language etc. Details and rationale for categorisation is discussed in the following respective sections.

6.1 Nature of interaction

Considering the multi-purpose nature of the use of the application WhatsApp, the following categories emerged from the data:

a. Instructions (what to do? How to do a task? Explanation of tasks)

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b. Content delivery (explaining actual lesson content/grammatical concepts, addressing individual and/or group queries related to concepts/content)
c. Clarifications (SS' questions for any type of explanation)
d. Exchange of ideas (SS and/or T sharing information related to study, exams etc.)
e. Socializing (greetings, courtesy messages, small talk etc.)
f. Administrative (Asking/giving information e.g. holiday, absence, lateness etc.)
g. Academic reminders (deadlines, assigning homework etc.)

Each category included various types of functions to serve the purpose as indicated above next to each category. Examples of interaction may not necessarily constitute a verbal description, but in many cases merely emoticon/s conveying the message in the context.

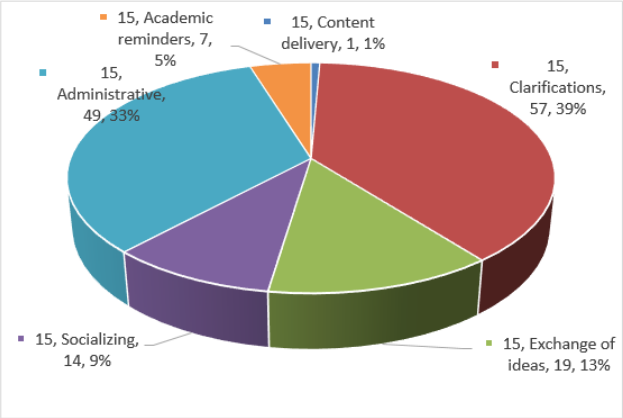

Figure 2: Nature of Interaction in the data

Figure 6.1 Nature of interaction in the data

As Figure 6.1 above reflects, both groups used the applications as a means of clarifying and communicating administrative messages at 39 percent and 33 percent respectively. Thirteen percent of the data was used to exchange ideas and only 1 percent was used for content delivery.

However, looking at both groups of the data individually, some interesting contrasts could be noticed where the pre-intermediate group (henceforth the data 1) showed a tendency to use 56 percent of the data to deliver academic reminders as compared to the intermediate group (henceforth the data 2) who consumed only 9 percent of the data for academic reminders (Figure 6.2).

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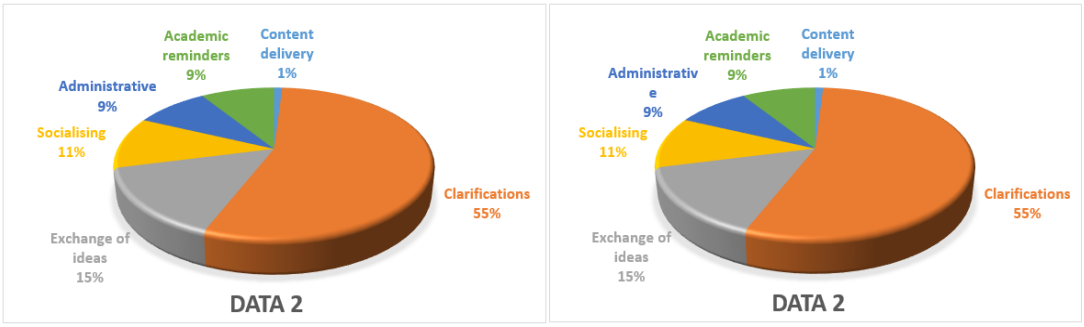

Figure 3: Nature of Interaction

Figure 6.2 Nature of interaction

On the other hand, the data 1 used 20 percent of the data for clarifications in contrast to the data 2 that used 55 percent for the same purpose. In terms of administrative messages, the data 2 used almost double to the data 1 in the same category. Using target language for real life communication is valuable for providing learners with a rich opportunity to have exposure to the target language in a real-life setting.

The finding indicates that learners were deprived of the opportunity to interact by making the whole exercise more teacher-centred, particularly in the data 1, where the teacher is the main communicator and producer of a major part of the language used, which might also be due to the low competence level of the students. However, in such case, the use of the application becomes even more vital to encourage the students to use the application as a platform for practising target language, an opportunity which the teacher in the data 1 appeared unable to achieve.

A dramatically sharp contrast in the use of the application by both groups of the data under the categories of administrative reminders (56 percent) in the data1 and clarifications (55 percent) in the data 2 revealed how both groups unconsciously determined the main objective of using the application. In data 1, the teacher relied heavily upon using the application to disseminate administrative messages unlike the data 2 that allowed students to majorly engage in interaction with their teacher as well as with each other, to get answers to their queries. Nevertheless, as in the data 1, a micro analysis reflected that the nature of a vast majority of clarifications in the 2 was also guided by administrative messages such as exam dates, exam venue, deadlines etc. However, the most significant difference between both groups of the data is that in the data 1 the messages were initiated by the teacher, without requiring any response from students, whereas clarifications with embedded administrative messages were mainly produced by the students and required responses from other group members. Treating the application from teacher and student-centred perspectives highlight that teacher training is imperative to use technology in the class tactfully in order to achieve the desired learning outcome. Merely being a proficient and frequent user of a mobile phone does not necessarily ensure effective application of the devices in an academic context.

In the categories that directly involve students' use of language (*clarifications, exchange of ideas* and *socializing)* both groups have somewhat similar tendencies as reflected in Figure 3 above. Under the category of *Clarification*, both groups showed 37 instances of interaction by students, including one or two word messages. Regarding *exchange of ideas*, out of 17 messages by students, 4 messages are 1-2 word messages, two messages are web links and

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one message consists of a short paragraph shared by a student. In socialising, about 90 percent of the messages include courtesy messages such as *Thank you, welcome, sorry* etc. Further discussion on the quality of these interactional stances would be made in the later sections.

One significant finding of the data is that only the data 2 has used 1 percent of the data for some form of content delivery. In this respect, there is only one turn by the teacher with three examples of target structure:

I like to swim in the sea. I like swimming in ....
I like working here. (I enjoy my job).
I would like to work here. (I want a job here).

Apart from this single example of content-based exchange, the data does not contain any instance of direct teaching of learning content. Overall, both groups seem to have the tendency to use the application more for administrative communication, which is completely acceptable because they are utilising the opportunity to use target language for communication in real life. However, these groups potentially could have availed the opportunity to use the application more beneficially with a focus on providing commentary and feedback on students' learning endeavour that might provide them with greater support to pass this examination-oriented course.

6.2 Quality of Interaction

Two sub-categories of turn taking and appropriate to responses emerged from the data, and were analysed to measure the quality of interaction. As minimum or controlled teacher talk time has always been significantly important in the language classroom for allowing students more opportunities to use and practice target language, turn taking in the data could be viewed as having the same potential. Though, the data reflected a reasonable proportion of 'teacher talk time' with a ratio of 27 and 73 percent for teacher and students turn taking respectively, a micro view of each the data individually revealed that the data 2 allowed more turn taking by students with a ratio of 80 percent in contrast to 66 percent students turn taking in the data 1 (Figure 6.3).

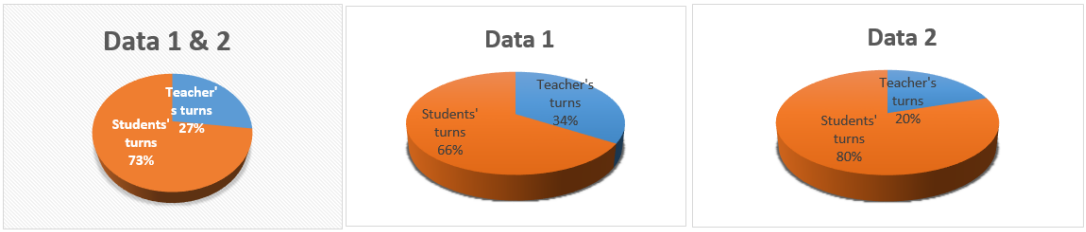

Figure 4: Turn taking

Figure 6.3 Turn taking

Nevertheless, the ratio of 27:73 in the data needs to consider the fact that this ratio is between two teachers and 50 students. In theory, a total of 418 turns by 50 students implies 8.36 turns by each student and 79 turns by each teacher from a total of 158 turns by both teachers. This mathematical application is only valid if each of the 50 students contributed to the conversation with an ideal equation of participation, which is unlikely in natural

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circumstances. Considering that the participants' names were eliminated by their respective teachers to ensure anonymity of the respondents, it was not possible to know the turn taking ratio of individual students in each group. As happens in a real classroom, it is reasonable to assume that some students would have been more participative than others, which even further reduced the ratio of turn taking for individual students in the group. Throughout the conversations in the data, teachers did not comment on participation, nor are there references to encourage quieter students.

The other sub-category of appropriate response refers to the participants' turns to respond to all kinds of topics (academic, administrative, social) in discussion in terms of relevant questions, answers, comments/feedback in English words and/or phrases and emoticons. Thirty-one percent appropriate responses of the total turns in the data (Figure 6.4) is quite meaningful when viewed along with Figure 3 where students exchange ideas, clarify and socialise with a percentage of 39 and 81 in the data 1 and 2 respectively.

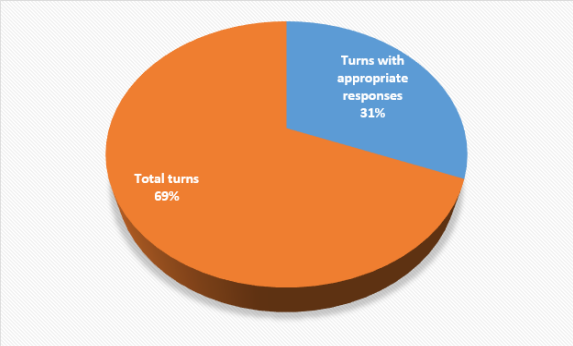

Figure 5: Turns with appropriate responses

Figure 6.4 Turns with appropriate responses

Particularly in the data 2, students' ability to establish an interactive conversation reflects their involvement in the activity. In the data 1, students' involvement is somewhat limited mainly due to the fact that the teacher in the data 1 used the application more as a tool for passing on administrative messages rather than a forum for live interaction and language practise. It is significant to note that in the data, the participants also interacted in Arabic, which is not excluded from the analysis because our main focus is on interaction in English language only. However, responses in Arabic, corresponding to the greater voice of students and hence in much greater number in the data 2 than the data 1, also denote the participants' involvement. Their participation in Arabic might not have supported the objective of practising target language, such interaction does contribute to students' ability to think and work collaboratively as a team in academic as well as social life, hence carries potential of developing interpersonal skill.

Looking at the quality of language, it is also noteworthy that the participants used a limited variety in the use of social language where 90 percent of social responses include single word utterances such as *sorry, thanks* etc. (Figure 3). The students could have been encouraged to take this opportunity of socialising in a target language with a wider variety of expressions, probably to be initiated by the teachers if students were unable to experiment in this aspect of language use on their own.

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6.3 Quality of Language

The third theme of this paper dealt with the quality of language used by the participants in the data. In this respect, we devised three sub-categories to analyse how far the language used in the conversations had the potential to academically benefit students. The issue of accuracy in language acquisition within an academic context has always been of vital importance. The students at the ELI study examination-oriented foundation courses, therefore, we found it appropriate to estimate if using the application helps students to demonstrate accuracy in language use while interacting in target language for real life communication. Use of language in social media and groups like WhatsApp is marked with certain features such as using abbreviations and acronyms which are not acceptable in formal English. Therefore, it was decided that such use of language was to be treated as inaccurate language in the analysis. However, surprisingly, none of the participants used this language, most probably due to instructions from their respective teachers to use standard English only. Use of emoticons without language was also eliminated while analysing the quality of language because of the absence of any apparent grammatical construction, though it is arguable that use of emoticons speaks of a linguistic construction in the mind of the users that metaphorically appears in discussion. We believe that replying in the form of emoticon is equal to answering with gestures in real life conversation, which reflects that the 'speaker' understands the context and responds appropriately but s/he does not produce a linguistic structure. Also, beyond simple situations, replying with gestures (or emoticons) may not help communicating the message completely or appropriately.

We used the term 'exchange' to refer to a complete piece of a message with discourse and pragmatic competence in contrast to turn which is identified with a timestamp irrespective of it being a complete thought. This differentiation was important to consider because a turn might be a single word, accurate in lexical construction but still incomprehensive in the context. On the contrary, an exchange is a response with focused meaning and structure. Likewise, typos, where the word can be easily guessed, were not treated as errors. The same was applied to auto-correct texts, which were ignored despite not fitting in the context, or did not help in understanding the meaning. This strategy was used partially because while typing if the 'send' key is clicked mistakenly, the writer is not left with the option of undoing the task, and partially because there were no such errors in the data which could significantly influence the findings. Capitalisation of letters was also ignored because the inbuilt programme in the application automatically capitalises the first letter of a new turn even if it proceeds the same sentence from the previous turn.

Table 6.1 below shows that teachers in the data made 100 exchanges with 7 inaccuracies in their language use. These seven instances of inaccuracy were typos, and apparently unlikely to hinder communication even at students' level.

Table 6.1 Quality of language in the data

Exchanges by teachers	100
Inaccuracy by teachers	7
Exchanges by students	64
Inaccuracy by students	17
Variety of structures – teachers	12

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Variety of structures - students	14

Out of 64 exchanges by the students, 17 inaccurate instances (27 percent) were noted. These inaccuracies included incorrect spellings, awkward/incorrect syntax structures and inappropriate use of words. On one hand this ratio may not necessarily inform on the students' language competence because they always had the option to use google translator and other translation applications to help them communicate as accurately as possible. Using a translation application was clearly reflected in few stances as well as evident from one of the teachers' instruction to use google translator in order to communicate in English in the group. However, on the other hand, it reflects the students' ability to use another application, which anyhow exposes them to the target language in one way or another.

The conversation forums such as WhatsApp have rich potential of providing a variety of grammatical structures and language functions to students in a non-academic context. The teachers and students in the data used a variety of structures with an almost similar number (Table 6.1 above). However, a closer look at the data revealed that the students used a wider variety of sentence structures and tenses than their respective teachers did. The variety of structures used by the students included affirmative, negative and questions structures in the present, past and future simple, passive voice in the present simple, imperative structures and use of the modal 'can'. The teachers mainly used instructional language i.e. imperative, in addition to using affirmative, negative and question structures in the present, past and future simple. A quick overview of the types of structures used in the data might lead to the superficial inference that the students apparently followed the structures used by their teachers. However, a closer analysis of the data revealed that the students did not reproduce the structures used by their respective teachers. For example, both of the teachers relied heavily on using the imperative structure to deliver instructions, particularly in the data 1 where the teacher used 48 sentences with the same imperative structure throughout, whereas there are hardly any examples of imperative structures used by the students. It can be argued that the teacher/s used imperative structures to give instructions, which was not the scope of the language used by the students. Likewise, the variety of question structures in the present simple are far more varied than used by the teachers. Therefore, it can be maintained that the students used a richer variety of structures, however, it is hard to claim that they possess the competence of processing these structures in any other setting with the same level of accuracy. This stance becomes even stronger in lieu of the possibility of using various translation applications by the students. Nonetheless, we do not tend to view using translation applications negatively for their value of allowing opportunities for target language exposure as well as processing language by users at some level.

Using L1 and/or code-switching was another sub-category that was considered in terms of the quality of language use in the data. Overall, 63 percent of the total 576 turns were in English, in addition to 9 percent turns using only one or more emoticons (Figure 6.5).

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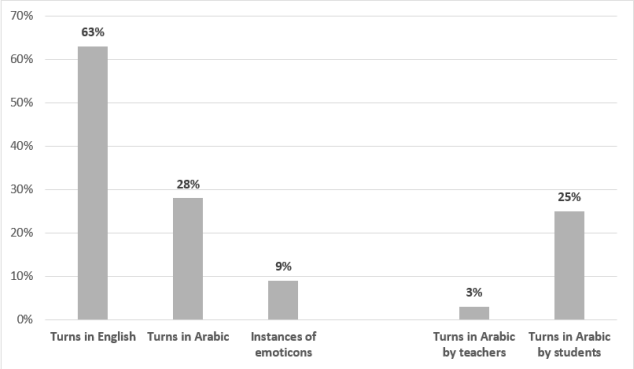

Figure 6: Use of English/Arabic/Emoticons

Figure 6.5 Use of English/ Arabic/ Emoticons

The teachers produced 3 percent of the turns in Arabic as compared to 25 percent Arabic turns by the students. With a couple of exceptions, the teachers used code switching, by using colloquial phrases in Roman Arabic e.g. *Wallah Alaam* (God knows), *mumkin* (Possible) etc. rather than making a direct use of L1. In contrast, the students used Arabic script to interact with each other rather than with the teacher. While interacting with the teachers, sometimes the students used broken English to inquire why they cannot converse in Arabic. Figure 6 reflects that the participants reasonably made good use of the opportunity to use target language, which is one of the most desirable goal of using the application in an academic context.

7 Discussion

In the light of the findings of our study presented above, we tend to assert that, contrary to a general assumption, using technology in classroom requires as careful planning and preparation as a traditional non-technical class does. Integration technology in education does not involve only availability and knowledge of operating the equipment but also the pedagogical skills to effectively integrate it into the routine learning environment. Any software or application needs to be taken as a learning tool, like printed books and handouts, which is unlikely to help achieve learning objectives on its own without a strategic manipulation of the tool. Like any learning material, no matter how outstanding it might be, any application used in academic contexts needs to be adapted to suit the needs of learners. However, this is only possible if a well-thought plan is administered in terms of using the application in classroom with clearly defined learning objectives, rather than introducing the application abruptly without contextual considerations.

In case of the data in hand, the use of the application could potentially be made more effective and useful to help their students learn, unlearn and re-learn various language structures, and concepts. A pedagogical focus e.g. using/introducing new vocabulary and grammatical structures prescribed in the curriculum could have enriched learners' experience of using the target language for real life communication. The application could have been sued as a platform for brainstorming and group discussions on various topics by giving direct and indirect feedback. A more well thought strategy could potentially have motivated students to participate more actively, particularly encouraging 'quiet' students to give their opinion. Setting clear objectives at the beginning of the group could also have placed students at a more advantageous place to benefit from the entire exercise of interacting online.

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However, apparently, unawareness of effectively using and integrating technology with pedagogy resulted in limited outcome.

In this respect, we tend to refer to Pask's (1975 conversational theory for initial guidance for teachers who are interested in integrating WhatsApp in their teaching. Pask (1975) perceived that explicit explanation or manipulation of the subject matter facilitates understanding. He maintained that learning occurs through conversations about a topic which aims to make knowledge explicit. Grice's (1989) theory of conversational implications also suggests similar perspectives on using conversation for language learning. It suggests that our talk exchanges are cooperative in the sense that they are succession of connected remarks with some level of recognition of common purposes and mutually agreed direction among the participants. In line with Grice's theory, exchanges in WhatsApp conversation, participants may contribute with remarks which apparently seem isolated or disconnected, but in the broader perspective of the conversational context, the exchanges are meaningful and connected with the thought on the conversational thread. This connectivity gives the exchanges a valid conversational recognition to be formally treated as an opportunity for meaningful communication in a target language in the language-learning context. However, teachers as moderators need to consider the cooperative principles by training learners on how to make their contribution as required, at the stage at which it occurs by accepted purpose or direction of the talk exchange in which they are engaged (Grice, 1989: p 45). In this regard, Grice' suggested maxims of quantity, quality, relation and manner are vital to be considered for effective manipulation of the application to academically benefit from the application. Pask's three level of conversation (natural language, object language and metalanguage also present similar perspectives to that of Grice's principles of implicature.

Following Pask's conversational theory, WhatsApp potentially provides an excellent opportunity to manipulate the target language for authentic communicative purposes as it has the capacity to cover the natural language, object language and metalanguage level of conversation. The data of the data utilised the application for natural language to some extent, however, it could have used the object language i.e. discussing the subject matter, and metalanguage i.e. talking about learning/language. Section 5 above reflected that the participants could not fully utilise the opportunity to make maximum benefit of using the application, partially by not allowing and encouraging students to maximise the use of target language for a variety of purposes rather than merely informing administrative questions and answers. Such a practice has its own limited utility which could be enriched by allowing more authentic use of language such as socialising, discussing the subject matter itself as well as talking about various strategies to improve language proficiency. Introducing broader perspectives with a wider variety of topics in the conversation (e.g. brainstorming for classroom activities, inviting to outline a writing task, generating ideas for problem solving activities, giving resources to research online on relevant topics and feedback in the group etc.) potentially leads to greater competence in language use with higher level of confidence among learners.

8 Conclusion

In this paper, we have examined a textual data of conversation made via WhatsApp chat forum by two EFL groups in a Saudi context. We observed that both the groups participated well in the conversation, although one group received more opportunities of language output than the other due to their respective teachers' handling of the application. We also

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discovered that the participants showed greater tendency towards using the application as a messenger to communicate administrative queries rather than as a forum to address academic topics, subject matter and metalanguage. Although we do not perceive such a treatment of the application necessarily negative, we tend to emphasize that the application has greater academic potential than merely using it as a substitute of emailing or text messaging for routine communication in classroom. We have referred to conversational theory drawing on how conversational exchanges can be used to enhance the understanding of academic concepts and help students to achieve linguistic competence. We also emphasized that having proficiency in mobile phone use should not be taken as a skill to use it for academic purposes, and teachers need to administer well-thought strategies to exploit technology in classroom with a clear reflective follow-up agenda both for teacher and students.

References

Ahmed, P. S. (2012). The way we teach, the way they learn. *Procedia - Social and Behavioral Sciences*, *47*, 1554–1557. Retrieved from http://doi.org/10.1016/j.sbspro.2012.06.860

Ahmed, P. S., Kasi, F., & Nasseef, O. A. (2013). Mobile Phones: Under-utilized Pedagogical Devices. *Life Science Journal*, *10*(4), 3128–3131.

Alsaleem, B, I. A. (2014). The Effect of "WhatsApp" Electronic Dialogue Journaling on Improving Writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students. 21st Century Academic Forum Conference Proceedings, Conference at Harvard. Retrieved from file:///C:/Users/Jabreel/Desktop/DEANSHIP%20SUPPORT%20COMMITTE/ARTICLES/WHatsapp%20for%20vocabulary.pdf

Al-Shehri, S. (2011). Context in our pockets: Mobile phones and social networking as tools of contextualising language learning. In *10th World Conference on Mobile and Contextual Learning*. Beijing, China. Retrieved from http://mlearn.bnu.edu.cn/source/ten_outstanding_papers/Context%20in%20our%20pockets%20Mobile%20phones%20and%20social%20networking%20as%20tools%20of%20contextualising%20language%20learning.pdf

Amer, M. A. (2010). *Idiomobile for learners of English: A study of learners' usage of a mobile learning application for learning idioms and collocations* (Ph.D.). Indiana University of Pennsylvania, United States -- Pennsylvania. Retrieved from http://0-search.proquest.com.wagtail.ufs.ac.za/docview/749923566/abstract/95B28B09E2574CA1PQ/1?accountid=17207

Beatty, K. (2013). *Teaching & Researching: Computer-Assisted Language Learning*. Routledge.

Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994-2012. *Language Learning & Technology*, *17*(3), 15 7 – 22 5.

Chen, C.-M., & Hsu, S.-H. (2008). Personalized Intelligent Mobile Learning System for Supporting Effective English Learning. *Educational Technology & Society*, *11*(3), 153–180.

Chinnery, G. M. (2006). Emerging Technologies: Going to the MALL: Mobile Assisted Language Learning. *Language Learning & Technology*, *10*(1), 9–16.

Collins, A., & Halverson, R. (2009). The second educational revolution: How technology is transforming education again. New York: Teachers College Press.

Chun, D. (2001). L2 reading on the web: Strategies for accessing information in hypermedia.

Corresponding Author: Dr. Pir Suhail Ahmed Sarhandi, University of Free State, South Africa

E-mail: ssarhandi@yahoo.com

Computer Assisted Language Learning, 14(5), 367-403.
Dempster, P. (2011). Exposing reflection on accommodation and assimilation in mobile language learning. In *Proceedings 10th World Conference on Mobile and Contextual Learning (mLearn)* (pp. 358–360). Beijing Normal University, Beijing, China. Retrieved from http://mlearn.bnu.edu.cn/source/Conference_Procedings.pdf
Diaz, V. (2010). Mobile teaching and learning: Engaging students and measuring impact. (pp. 1–83). Paper presented at the ECAR Symposium, EDUCAUSE'Learning Inititative. Retrieved from https://net.educause.edu/ir/library/pdf/ECR1005.pdf
Dunlap, J. C. (2006). Using guided reflective journaling activities to capture students' changing perceptions. *TechTrends, 50*(6), 20-26.
Elias, T. (2011). Universal instructional design principles for mobile learning. *International Review of*
Research in Open and Distance Learning, 12(2), 143-156. Retrieved from http://www.eric.ed.gov/PDFS/EJ920738.pdf
Farah Habib Chanchary, & Islam, S. (2011). Mobile learning in Saudi Arabia-Prospects and challenges. Retrieved from http://www.nauss.edu.sa/acit/PDFs/f2535.pdf
Fogg, P. (2010). The 24-7 professor - what to do when the home is just another word for office. *Chronical of Higher Education,* 54 (21, B12. Grice, H.P. (1989). Studies in the Way of Words. Harvard University Press.
Heift, T (2002). Learner control and error correction in ICALL: Browsers, peekers, and adamants. *CALICO Journal, 19*(2), 295-313.
Herrington, A. Herrington, J. & Mantei, J. (2009). Design principles for mobile learning. In J. Herrington, A. Herrington, J. Mantei, I. Olney & B. Ferry (Eds.), *New technologies, new pedagogies: Mobile learning in higher education* (pp. 129-138). Wollongong: University of Wollongong. http://ro.uow.edu.au
Kobayashi, C. (2006). *The use of pocket electronic dictionaries as compared with printed dictionaries by Japanese learners of English* (Ph.D.). The Ohio State University, United States, Ohio. Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=osu1155615693&disposition=inline
Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, *21*(02), 157. http://doi.org/10.1017/S0958344009000202
Man, K, C. (2014). Word's Up with WhatsApp: The Use of Instant Messaging in Consciousness-raising of Academic Vocabulary. Paper presented in 23rd MELTA and 12th Asia TEFL International Conference, 28 – 30 August 2014, at Borneo Convention Centre, Kuching
Mentira. (n.d.). Retrieved from http://www.mentira.org/
Mork, C.-M. (2009). Using Twitter in EFL Education. *JALT CALL Journal*, *5*(3), 41–56.
Nassuora, A. B. (2013). Students Acceptance of Mobile Learning for Higher Education in Saudi Arabia. *International Journal of Learning Management Systems*, *1*(1), 1–9.
Ophir, E., Nass, C., & Wagner, A.D. (2009). Cognitive control in media multitaskers. Proceedings of the National Academy of Sciences, 106(37), 15583-15587. Retrieved from http://www.pnas.org/content/106/37/15583.full.pdf
Pask, G. (1975). Conversation, Cognition, and Learning. New York: Elsevier.
Pegrum, M. (2014). *Mobile Learning: Languages, Literacies and Cultures*. New York:Palgrave Macmillan.
Rinehart, D. L. (2012). *Students using mobile phones in the classroom: Can the phones increase content learning* (M.Sc.). California State University, Long Beach, United States, California. Retrieved from http://0-

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search.proquest.com.wagtail.ufs.ac.za/docview/1030959150/abstract/1941000587914E10PQ/31?accountid=17207

Seliaman, M. E., & Al-Turki, M. S. (2012). Mobile Learning Adoption in Saudi Arabia. *International Science Index*, *6*(9), 1–3.

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. Language Learning & Technology, 14(2), 95-110.

Stockwell, G., & Hubbard, P. (2013). Some emerging principles for mobile-assisted language learning.

Traxler, J. (2005). DEFINING MOBILE LEARNING. Presented at the IADIS International Conference Mobile Learning 2005. Retrieved from https://www.academia.edu/2810810/Defining_mobile_learning Traxler, J., & Kukulska-Hulme, A. (2007). *Mobile Learning: A Handbook for Educators and Trainers*. Routledge.

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