Computer Mediated Communication Impact on EFL Learners' Fluency

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Abstract

The present study aims at investigating the impact of Computer Mediated Communication (CMC) on first year students' oral fluency in an EFL classroom setting at the department of English in the University of Abbes Laghrour Khenchela. An Ex Post Facto research was conducted. We hypothesized that students who are exposed to a certain amount of computer mediated communication are more likely to produce more authentic conversations, in particular, and oral fluency, in general. To verify our hypothesis, we identified two groups among 40 students, one having our independent variable (CMC exposure) and the second relatively lacking it. To perform this selection, we conducted oral interviews with and administered a questionnaire to the students. Subsequently, to measure our dependent variable (oral fluency), we submitted the students to the speaking section of the TOEFL test. Analysis of the results revealed a significantly higher oral fluency amongst computer mediated communication users. From those findings we recommend implementing CMC tools and methods in EFL classroom settings to help increase oral fluency amongst EFL learners.

Keywords : Computer Mediated ; Communication ; Impact ; English as a Foreign Language ; learners Fluency

الملخص:

تهدف هذه الدراسة إلى دراسة تأثير التواصل بوساطة الحاسوب على الطلاقة الشفوية لطلاب السنة الأولى في قسم اللغة الإنجليزية كلغة أجنبية بجامعة عباس لغرور خنشلة. قمنا بإجراء بحث أكس بوست فاكتو بعد أن افترضنا أن الطلاب الذين يتعرضون إلى قدر معين من التواصل بوساطة الكمبيوتر هم أكثر انتاجا لمحادثات أكثر واقعية على وجه الخصوص وأكثر طلاقة شفوية بشكل عام. للتحقق من فرضيتنا ، اخترنا مجموعتين من بين أربعين طالبًا ، إحداهما تحتوي على متغيرنا المستقل (التعرض لوسائل الاتصال الحاسوبية) والثانية تفتقر إليها

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نسبيًا لإجراء هذا الاختيار ، كما أجرينا مقابلات شفوية مع الطلاب وقمنا بإعداد استبيان بعد ذلك . لقياس المتغير التابع لدينا (الطلاقة الشفوية) ، عرضنا الطلاب إلى قسم التحدث في اختبار التوفل وكشف تحليل النتائج وجود طلاقة شفوية أعلى بكثير بين مستخدمي الاتصالات بوساطة الكمبيوتر. بناء على هذه النتائج ، نوصي بإدخال وسائل الاتصال بواسطة الحاسوب في المناهج   و طرق التدريس في أقسام اللغة الإنجليزية للمساعدة في زيادة الطلاقة الشفوية بين متعلمي اللغة الإنجليزية كلغة أجنبية.

الكلمات المفتاحية: الاتصالات بوساطة الكمبيوتر ؛؛ تأثير ؛ اللغة الإنجليزية كلغة أجنبية ؛ المتعلمين، الطلاقة

Introduction

Language teachers have always claimed that teaching fluency is a difficult task. Still, some regular professionals –waitresses, taxi drivers- in native speaking settings make a distinction between fluent and disfluent speakers (Derwing, Rossiter, Munro, & Thomson, 2004). The trouble in achieving a clear definition of fluency is represented in the fact that fluency actually encloses a variety of language aspects (Brown, 2003; Biber D. , 2009; Derwing, Rossiter, Munro, & Thomson, 2004). Brown expressed his opinion on fluency by saying that "a person is said to be a fluent speaker of a language when he can use its structures accurately whilst concentrating on content rather than form, using the units and patterns automatically at normal conversational speed when they are needed." (Hartmann & Stork, 1976, p. 6).

Considering the fact that both Computer Mediated Communication science and Oral fluency are indispensable parts of our daily lives as EFL academia, a merging point is appealing to fill the fluency gap through the use of CMC as a tool to access ample amount of authentic resources.

There are no major differences in the various attempts to define Computer Mediated Communication (CMC). It refers to any human interaction attained through the means of computers. Susan Herrings (1996) puts it, "CMC is communication that takes place between human beings via the instrumentality of computers". "Baron (1998) defines it as "a domain of information exchange via computer" (p142). According to (Stoerger, 2012, p. 3), it is "Communication that occurs between two or more individuals who are connected to each other through separate, networked computers". Clearly, there is a consensus that it is communication/interaction taking place between humans through the medium of some computer technology. However, we would like to adhere to Bodomo's definition (2010) :

"For us CMC is defined as the coding and decoding of linguistic and other symbolic systems between sender and receiver for information processing in multiple formats through the medium of the computer and allied technologies such as PDAs, mobile phones, and blackberries; and through media like the internet, email, chat systems, text messaging, YouTube, Skype, and many more to be invented." (p. 6)
The growing development of new technologies came with new literacies, skills and strategies required by a wide range of tasks to be fulfilled in multimodal environments, among which is communication through the medium of the Internet (Castek, 2007; Leu, 2004). Jewitt draws attention also to the way multimodalities of new technologies may even change interaction and communication in classroom environments (2013). The effects of multimodal technologies on learning has been the main subject matter of considerable number of studies during the last decades (Kress, Jewitt, Ogborn, & Tsatsarelis, 2001; Price, Davies, Farr, Jewitt, & Roussos, 2012; Jewitt C. , 2013; Jewitt C. , Technology, Literacy, Learning: A multimodality approach, 2008; Jewitt C. , The Move from Page to Screen: The multimodal reshaping of school English).

1- Problem of the study

Algeria is so open to the world that the English language has become required for cultural understanding, and every cross-cultural communication endeavor for all kinds of purposes. Nowadays, foreign sojourns of the (EFL) academic community, the economists and politicians, require them to have a certain level of communication competence. They are conscious that a successful international understanding relies so much on direct communication between the concerned parties rather than the dependence on translation services. During my academic experience as an EFL teacher at the University of Abbes Laghrour –Khenchela, I noticed that most EFL learners lack one of the most important aspects of language, which is fluency. Learners have ideas to share, but the fluency barrier hinders their message transmission, which is at the heart of communication deficiency this study is concerned with.

Modern theories in education minimize the power of the teacher as the only transmitter of knowledge, and favor more independent methods such as the learner-based approach that fosters learners' autonomy. The case of English as a Foreign Language (EFL) classroom is no exception. Generating life-like experiences proved to be efficient and

got a lot of praise and positive feedback among its researchers and users. (Biber D. S., 1999; Chambers F. , 1997; Derwing, Rossiter, Munro, & Thomson, 2004). Life-like experiences can be generated through many methods (Brown, 2003). One of them is Computer Mediated Communication (CMC) (Bodomo, 2009). The problem to be examined in the EFL settings is; therefore, the lack of oral fluency among the learners. This quality is necessary in order to move further in the learning process. Speaking skills are important to take language learning to the next level, to get passed the basic alphabetic related matters and discuss other aspects. In order to achieve oral fluency, we will examine the effect of CMC on university students' oral fluency and production of authentic oral conversations.

Little research has been conducted to address this topic in Algeria. Moreover, many researchers whether in Teaching English to speakers of other languages (TESOL) or Teaching English as a foreign language (TEFL) have tried to research the exposure to language and its effects on fluency. It has been agreed for example that fluency increases after a period of study abroad (Freed B. F., 2004; Freed B. F., 1993). However, when it comes to other methods of instruction to be designed to solve the dilemma, little methods have been introduced to enhance students oral fluency and even fewer have been tested.

2-Research questions and hypothesis

The main hypothesis that we set for this study is the following:

H1 University students who are exposed to daily or frequent use of CMC are more likely to be more fluent while speaking in the oral classroom, thus producing authentic conversations in particular and oral fluency in general.

This study results will answer the following questions:

1. Does frequent CMC use have an impact on university students' oral fluency?

2. What is the extent of that impact?

3-Aim of the study

In this study, we aim to shed light on the benefits of using computer technology in order to improve EFL learners' fluency. Based on the line of thinking described by Stoerger (2012), "even within face-to-face educational settings, online technologies enhance learning and help present alternative educational options to students. Educators can and should embrace such methods to experience them now and to prepare for the next innovations" (Stoerger, 2012, p. viii). This falls under the

vast discipline of Computer-Mediated Communication. This discipline has become as diverse and complex as the fields it uses, namely "computer science, information technology, communication studies, linguistics, literacy, education, business, ethics, and law" (Bodomo, 2009, p. x). This interdisciplinarity came as a result of the great influence CMC has had on each and every aspect of human life. Higher education is no exception (Ryan, 2012). Extensive research attempted to cover the different influences new computer technologies have on students' lives and behavior, as well as how to use those same technologies to improve learning (Ryan, 2012; Valentino, 2012; Dumova; Bodomo, 2009; Stoerger, 2012). Our study, though, deals with a local setting about which few research has been conducted.

4-Definition of terms and variables

Computer mediated communication: any human communication that takes place through the use of technology –the instrumentality of computers-, it takes many forms that are constantly evolving as the technology we use does (Herring, 1996, p. 9).

Oral fluency: The ability to use linguistic competences in different settings. In a native-like manner (Chambers F. , 1997, p. 6).

5-Research methodology

To investigate the role of CMC in students' oral fluency, and the development of their oral performance in the target language, we hypothesized the following:

- Students who use CMC means are expected to have a better level of oral fluency compared to the students who don't use CMC in their daily life.

We opted for an ex-post facto research design (After the fact study), a dictionary meaning for the ex-post facto is; done, made, or formulated after the fact (dictionary, 1928). Ex post facto study is considered to be a research category where investigations, measurements of the variable to be studied is undertaken right after another variable occurs. Thus researcher manipulation is eliminated (Salkind, 2010). The research design is dependent upon the research questions (Nurs, 1997). The optimal research settings in which an ex post facto design is not only a necessity but a requirement is when a social sciences research is conducted. Whenever, manipulation of certain human characteristics is out of the researchers reach. (Goes, 2013). " it is a substitute for true experimental research and can be used to test hypothesis about cause-and-effect or correlation relationships where it is not practical or ethical

to apply a true experimental, or even a quasi-experimental, design"
(Goes, 2013, p. 1).

This choice was made meticulously for two main reasons. Firstly, the
possibility of conducting a true experiment to investigate this question
seems unrealistic. Secondly, manipulating human responses and
interaction through a true experiment would provide ungenuine results
(Goes, 2013). That is why the natural course of an ex-post facto
research design would serve this research objectives.

For the aforementioned reasons, an ex post facto design was selected.
We divided our research into two phases. Phase one was to identify our
sample. We needed to define two categories amongst the population
under study. To do so, we designed a questionnaire to distinguish CMC
users from non-users. Both open ended and close ended questions were
introduced and the results yielded a clear distinction.

5.1. Research design

The present work aims at investigating the hypothesized cause/effect
relationship between first year students' oral fluency in English as a
foreign language in Abbes Laghrour University, Khenchela; and their
CMC use. In order to test our hypothesis, we conducted our research
based upon the ex-post facto methodology. Our study was administered
through two phases.

Phase one is the stage where we attempt to make a clear distinction
between two categories from our sample. The first category consists of
the students who are exposed to daily CMC use. The second represents
those who have little to no CMC exposure.

Phase two consists in assessing the two categories' oral fluency by
means of TOEFL ibt oral section test. That is adopted from an authentic
test provider -Educational Testing Services (ETS). The results of the
standardized oral test of the two groups were measured and compared
to test the hypothesis.

5.2. Population and Sampling

Our population consists of 177 first year English students at the
University of Abbes Laghrour Khenchela. Divided into 5 administrative
groups. The population female to male ratio is 70:30. Researchers and
theorists (Ilker Etikan, 2016; Saunders, 2012) asserts that sufficient data
can be obtained through the study of a portion of the population; that is,
a representative sample. Ours consists of a convenient sample of 40
students. We selected two out of 5 administrative groups as random
sampling was technically impossible. That later number will then be

reduced to 20 students after defining the independent variable carrier group and the non-carrier. (CMC users/ non-users)

The choice of this population is made based upon the following reasons. First year students have been exposed to a minimum level of academic English tutoring. Thus they have not encountered a large amount of fluency related problems. Also any (CMC) use they would display would be in their natural conduct and not maneuvered by any educational theories applied on them during their academic tutoring,i.e., they are to an extent clear of institutionalized language skills. That means that any language capacity they display at the speaking level will be very little impacted by their course program and mainly their language is the result of pre-university exposure or from their CMC exposure.

5.3.Materials

The nature of the issue we investigated entailed two measuring tools. Measuring CMC exposure required a qualitative tool, namely a questionnaire. In the light of the needed information, we designed the questionnaire for the first year students that would meet two main conditions: give students light about the importance of their use of CMC and its effects on their oral fluency.

To measure the students' oral fluency, we have chosen a standardized test, namely a reproduction of TOEFL oral proficiency test.

The questionnaire consists of 19 questions and is composed of three sections. Section one aims to identify CMC users from Non-users. Section two aims to measure students' knowledge about the field of CMC, identify its' presence in their lives and demonstrate its uses. Section three is designed to assess the students' opinion about the relationship between CMC and their oral fluency.

5.4.Procedure

Data collection took place in the academic year 2016/2017. The first implemented data gathering tool was an oral investigation that took place in December. The students were asked who was active in social media and who was not? Who had a personal computer and who did not? This initial investigation allowed the researcher to draw out the existence of two categories of students amongst the population. The second round of data gathering took place in February. It consisted of the students' answers to the questionnaire. The questionnaire was administered as follows, Group 1 answered the questions during a grammar class that was assigned to deliver homework, while group 2

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answered the questionnaire on at the end of literary text course. On the Tuesday Wednesday that followed. The students were provided with an oral and a written brief introduction on the topic of the research and faced it with much enthusiasm. Due to its relation to technology, as they answered the questionnaire the researcher waited in the classroom to clarify any ambiguity in the questions.

The second part of our research data collection took place in the second semester, precisely an Oral session was programmed at a language laboratory. The selected students were notified on several occasions in order to ensure a high participation. The test was administered by the researcher and the oral session teacher.

6-Data Analysis and results

6.1.. Discussion of the questionnaire's results

The questions 1, 2, 3 and 4 allowed us to determine two categories amongst our sample. The first is the excessive users, or CMC consistent users, as far as this research is concerned CMC users. The second is the modest to Non-users. This step fulfills our sample break down according to the ex post facto design. One group is charecterized with the our independent variable (CMC) and another whose main characteristic is the lack of the research independent variable (CMC). 32.5% of the population were categorized as non users (13), while 67.5% of the population were categorized as users (27). We will be conducting the second part of this research on an even number from both groups and the rounded number we choose is 10 from each group. This is due to reasons of; convenience in terms of analysis, calculations, and test management, and to account for absent elements.

The second set of questions (5,6,7,8,9,12,16) was devised to measure the population knowledge about the vast field we chose as our independent variable. Namely CMC. Their responses As expected, indicated a relatively considerable amount of knowledge. Indeed they are millenials after all -born 1982 through 2000, Millennials are the most diverse generation (Millennials: Our Newest Generation in Higher Education, 2005)- they are the most of worlds' population that has constant involvement in the internet. They are on the one hand considered central to the constant evolvement of the internet. And on the other hand, they are content creators and consumers. That is confirmed in a previous chapter about YouTube users and it showed that they are most likely to make daily check-ins in comparison to their older counterparts. Indeed, their knowledge about the field, its' nature

and vast uses was relatively high. Still, even those that this research tags as non-users have a decent knowledge about the field. By (Ess, 1996; Bodomo, 2009) standards, all the population are literate -according to the re-conceptualization of literacy concepts-.

The third set of questions (10, 11, 14, 17, 18, 19) aimed at assessing the students' prepossessed opinions about technology and CMC use in general and its relation to their oral fluency improvement or failures. The information that was gained from this section, first demonstrated a decent amount of lexical diversity students displayed, by understanding some wordiness in the questionnaire without seeking clarification, nor making any vocabulary related mistakes. Also a large majority of the students claimed that their CMC use is positive, and their vocabulary retention from that use is quite high.

6.2.Discussion of the TOEFL test results

On the one hand, when the CU (CMC users) group overall oral fluency is calculated it indicated high rankings in both productive and perceptive fluency components. The average of their TOEFL scores is calculated to be 20/30 and that is considered by both (ETS) as well as the native speaker to be an adequate level of fluency. On the other hand, after the NU (CMC non-users) group final results are calculated, their average score was 13/30. And that, in terms of both (ETS) and the native speaker's perspective is considered an unacceptable score reflecting relatively disfluent students and therefore disqualifying for any fluency attributes that can be attested for their average results. From the results attained we can conclude that the average fluency results of the CU group indicate 7 points higher than that of the NU group on (ETS) scale. The number may seem little but its actual ramifications on the oral fluency production as well as perception are more considerable than the number indicates.

Taking into consideration the test results both groups scored, and their average overall scores we arrived at the answers of the questions that this study have been seeking answers for. Firstly, frequent use of CMC have an impact on students' oral fluency, And its quality. That has been clarified by the positive scores CU group have achieved in comparison to the low scores NU group received. That means there is a positive impact of CMC on students' oral fluency. Therefore, what we hypothesized have been ascertained by the distinct difference between our two groups fluency results. Indeed CMC users are more fluent than their non-users counterparts.

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Conclusion

This investigation aimed mainly to check where the first year (EFL) learners stands from the global use of technology towards learning. Precisely (CMC) use and its effects on the Oral fluency of 1st year (EFL) learners at the University of Abbes Laghrour Khenchela.

The significant part of the research was the practical measurement of the two distinguished groups' oral fluency by using the renowned TOEFL ibt test (last edition from the beginning of 2005). Results was calculated, computed and assessed systematically. Which lead us to some revealing findings about the amount of positive impact caused by the use of CMC on EFL learners' oral fluency. Considering a gap of 7 points on the TOEFL test scale CU group received a mark of 20/30 while NU group received 13/30.

From this results comparison we conclude the following: Computer mediated communication impact on students oral fluency is of a positive effect. As the results indicates a 40% gap of fluency between CMC users and non-users. That confirmed our hypothesis, that CMC users does indeed possess higher fluency levels. It have also answered our research question in a clear manner, a positive effect indeed that puts CMC users ahead of their non-users counterparts by 40 %.

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