Promoting EFL Writing Through ICT Integration with Special Focus on Electronic Writing in Oman

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ABSTRACT

Students' passion for ICT devices gives educators opportunities to impart knowledge in a non-traditional manner. Also, this opens up a lot of opportunities for EFL teachers to promote electronic writing. The paper will highlight the importance of ICT in promoting EFL writing, and it will shed some light on different tools that can be employed to facilitate electronic writing. The paper tries to justify the use of ICT in promoting writing skills of EFL learners. The researchers have made use of some of the data collected through their research using ICT tools such as online forum discussions (OFDs) among EFL students in the Sultanate of Oman. Qualitative and quantitative data were collected to understand the effect of online forum discussions and blogging on the participants' EFL writing output, and the findings have been reported in this paper.

Introduction

Symbolic language, writing and printing are three main landmarks that have led to electronic writing in the present world of ICTs (Information and Communication Technologies). Ferris (2003) states that these three historical components of communication revolutionalized the way humans interact in the form of writing. Moreover, the ever evolving computer and electronic technologies of the modern high-tech world reiterates the significance of electronic writing in the lives of people from all walks of life especially businessmen, professionals, academicians, teachers and students. An outline of the evolution of writing in the form of symbolic language, writing and printing will provide the background for this paper before reviewing the significance of ICT and electronic writing.

Symbolic language began along with the beginning of human life and culture. The ability to communicate through spoken language is the one that distinguishes humans from other living beings. However, it is limited to one's cognitive capacity and memory. It is also limited to the number of people who could listen to the spoken words prior to the use of recording system (Schmandt-Besserat, 1986). Writing has helped humans to record their ideas and to communicate them beyond the boundaries of space and time. It could enable the human not only to record what is spoken, but also to refer to what has been recorded, thereby

giving writing its features of permanence and completeness (Ferris, 2003). Third, with the printing press, writing was given its characteristics of durability and re-productivity, leading to the preservation of language. Print has codified writing and standardized the language due to mass dissemination of printed materials. It has given way to modern education where students need not depend solely on a single teacher, and it has also led to the commercialization of writing and mass publication leading directly to the industrial and electronic era that produced computers (Eisenstein, 1983; Ferris, 2002) and electronic writing is the product of the computer age.

Definition: Electronic Writing in ICT

According to Stefan (2006), the term electronic writing refers to any form of writing that takes advantage of the possibilities afforded by [Information and Communication technology (ICT)] – such as the internet, or graphics programs such as Illustrator or Photoshop, or animation / audio / interactive programs such as Flash – in their creation and presentation (p.1). But it is also the types of writing that are known by a new pattern of thinking brought on by the integration of ICT (information and communication technology) which has influenced the world, i.e. forms of writing which are done following the technical rules of the database, or that writing centrally presented as general messages spread over the internet, or writing in the particular form of "Dispositions," that was done with the help of devices working on Global Positioning System (GPS) relying on ICT or computer technology in writing (Chen, 2014). *McGraw Hill Dictionary of Science and Technology* (2012) defines electronic writing as "the use of electronic circuits and electron devices to reproduce symbols, such as an alphabet, in a prescribed order on an electronic display device for the purpose of transferring information from a source to a viewer of the display device" (p.26).

According to Ferris (2003) electronic writing is the cluster of writing which can be carried out *on* and *through* a network of computers. Such electronic writing consists of writing for asynchronous inter-personal interaction (as in Online Forum Discussions (OFDs), e-mail, news groups, mailing lists, etc.), writing for synchronous interpersonal interaction (as in Multi-user object oriented dimensions (MOOs), chat rooms, and Multi-user dimensions (MUDs) and the use of World Wide Web (WWW) for writing.

Technology and Teaching English

Technology has become an integral part of EFL or ESL teaching and learning in terms of all the language skills such as listening, speaking, reading and writing. With a special emphasis on writing, Bradbury (2014) argues that teaching with technology is central to teaching writing and she found in her study that the students' "views were changing as they worked through . . . and they moved beyond their initial fatalistic and uncritical views of technology as one of her subjects commented . . . Technology is not a foe . . . Technology is a wonderful, powerful, useful tool in engaging

students . . . technology can create another platform for nature, another way in . . . and we always need and should want another way in . . . especially when technology is the way for our . . . students" (p.56).

Traditional (Paper-and-Pencil/Pen) Writing Vs Electronic Writing

With the computer age, electronic writing began to replace traditional, paper-and-pencil writing. Ever changing and advancing electronic devices started redefining traditional writing. **Table 1** summarizes the differences between traditional writing and electronic writing.

A study by Wolff (2013) found that we, as scholars and teachers, need to pay more attention to the interactivity that is embedded in and afforded by Web 2.0 applications and that a successful writing involvement with Web 2.0 applications requires an engaging interactive set of practices. and suggests that what is learned about these practices has the potential to transform one's understanding of writing and the teaching of writing within and outside of a Web 2.0 ecosystem. Moreover, electronic writing or documents have more varieties, attributes, efficiency and long life. They are also more persistent (difficult to destroy), and easily and quickly changeable/editable, collaborative and redundant. Further, the magnitude of electronic writing is much larger than traditional writing (one personal hard drive = 1.5 million pages) (Johnston, 1998; Pence, 2001).

Considering the significance of electronic writing in ICT and its increased relevance in the Middle East, the writer undertook the study among Omani EFL learners. The need for the study is evident from the lack of literature in the field of ICT focusing on electronic writing in EFL. Moreover, the learners are found exposed to ICT in their daily social life as well as academic life in the region.

Table 1: Traditional Paper-and-Pencil Writing Vs. Electronic Writing

Traditional Writing	Electronic Writing	Sources
Literacy ● Exposition, individual thinking	**Orality –** Phatic Communication, temporal immediacy, arguments, group thinking	Ong (1982); Lee, 1996; Johanyak, 2002; Ferris & Montgomery, 1996
Linearity and sequentiality ● Logically arranged	**Connectivity** – no linearity (e.g. emails); Hypertext – non-linear, but dynamic and non–sequential	Gibson, 1996 Bardini, 1997
Fixity ● fixed & permanence ● finite alphabet	**Fluidity** ● dynamic & no permanence ● binary codes	Murray, 1985; Lanham, 1992; Bolter, 1991
Passivity ● solitary activity ● passive traditional writer assisted by editor or publisher	**Interactivity** ● author or writer, medium and reader ● engaging ● cyber-writer as editor and designer	Bolter, 1991; Gibson, 1996 & 1997 Ferris, 2003
Quality ● limited readers ● specific functions ● specialized genre with special quality	**Value** ● large reading public reader ● extensive and democratic mediums ● what one desires shared among numerous audience ● available general public	

Research Objective and Questions

The study was undertaken with the objective of finding out the effectiveness of using electronic writing on the quantity of EFL written output. This paper, therefore, focuses on the effectiveness of electronic writing on the linguistic quantity of EFL written output. The study also attempts to find the learners' attitudes towards electronic writing. Based on the objective, the following research questions are answered along with their null-hypothesis.

1) Is there a significant difference in the quantity of words in EFL written output between before and after the electronic writing treatment?

2) Is there a significant difference in the quantity of Language T-Units in EFL written output between before and after the electronic writing treatment?

3) Is there a significant difference in the quantity of clauses in EFL written output between before and after the electronic writing treatment?

4) What are the attitudes of the learners towards electronic writing?

Hypotheses

The following null hypotheses were formed to test the significance of the findings of the study.

1) There is no significant difference in the quantity of words in EFL written output between before and after the electronic (writing) treatment.

2) There is no significant difference in the quantity of Language T-Units in EFL written output between before and after the electronic (writing) treatment.

3) There is no significant difference in the quantity of clauses in EFL written output between before and after the electronic (writing) treatment.

Methodology and Study Design

A comparative experimental study design was used. The students were enrolled in an e-learning course on Moodle. The researcher used the Forum tool on Moodle for the study. Ten topics were listed on the page for the students to write about electronically, following instructions. The topics were selected to promote argumentative writing. The topics were relevant to the learners' academic and social context. For example, the students were asked to write electronically about *students' use of mobile phone in the class*, *working Omani women*, *sports in Omani colleges*, and so on.

The participants were 28 Omani EFL learners whose mother tongue is Arabic. A pretest was administered to the students before their writing electronically using Moodle forum tool. The pretest was a writing task on a selected topic for 40 minutes, closely following the students' level exit writing exam model. After the pretest, the students were given training for two weeks on how to use the forum tool for interactive electronic writing, and the learners were asked to involve in meaningful electronic writing for 40 minutes every Thursday for a period of one semester (10 weeks) on given topics on their own. They were given feedback on their electronic writing regularly in the form of online forum discussions. After the treatment period, a post-test was conducted following the same pretest criteria. Both quantitative (written output through tests) and qualitative (interviews) methods of data collection were used. The qualitative method enabled the researcher to understand the learners' attitudes towards electronic writing which could not be understood otherwise from the quantitative data. The quantitative data was descriptively and inferentially analyzed using SPSS, and the qualitative data was collected through semi-structured interviews. The quantitative data of the pre-test and post-test were analyzed using paired samples t-test on SPSS. The interview was recorded, transcribed, coded into main categories and subcategories, and interpreted.

Test Instrument

As mentioned above, the researcher used writing tasks on selected topics based on the learners' Level Exit Exam (LEE) criteria for pretests and post-tests. The learners were given 40 minutes each for the pre-test and post-test to write about the topic argumentatively or expressing their opinions. The sample topics were *road accidents in Oman, use of telephone in classrooms*, etc.

Writing Measure (Hirotani, 2009)

The following writing measure (Hirotani, 2009) was used to measure the quantitative data, i.e. results of pre-test and post-test in terms of the quantity of EFL written output.

Table 2: Writing Measure (Adapted from Hirotani, 2009)

Category	Subcategory	Measure
Language Output	Word	Number of words
	Language Unit	Number of T-Units
	Clause	Number of Clauses

Many researchers have considered language output as the quantity of language produced in terms of number of words, language units (T-Units) and number of clauses (Hirotani, 2009). Egi (2010, p.8) defines that "tokens are number of words in a text or corpus; and types are number of different words." A T-unit refers to "minimum terminable unit" (Nagy & Beers, 2007, p.188), which includes both an independent clause and any number of dependent clauses and, in measuring the quantity, the number of clauses is separately counted.

Interview

A semi-structured interview was conducted with three of the participants to know their attitudes towards electronic writing in the EFL context.

Findings

A paired Samples T-Test was conducted to compare the difference between various dependent variables in electronic writing pretest and Electronic Writing Posttest in terms of quantity in accordance with the research questions. This article focuses only on the finding in relation to the quantity of language output as a result of electronic intervention in writing.

Question 1: *Is there a significant difference in the quantity of words in EFL written output between before and after electronic writing treatment?*

The paired Samples descriptive Statistics (**Table 3**) showed that there was a significant difference in the mean scores for the number of words in the pre-test (M = 191.03, SD = 74.50) and the post-test (M = 274.57, SD = 55.39); $t(27) = -7.478$, $p = <05$) (**Table 4**). These results suggested that electronic writing (synchronous) did have an effect on the quantity (number) of words in the written output. Particularly, the study results revealed that when Omani EFL learners were involved in electronic writing (online forum discussion synchronously), the number of words increased in their written output.

Table 3: Descriptive statistics for the quantity of words – Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Number of words (OFD Pre-test)	181.0357	28	74.50	14.08
	Number of words (OFD Post-test)	274.5714	28	55.39383	10.47

Table 4: Statistical Test: Number of Words – Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the Difference				
				Lower	Upper			
Words (OFD Pre-test) Words (OFD Post-test)	-93.54	66.19	12.51	-119.20	-67.87	-7.48	27	.000

Question 2: *Is there a significant difference in the quantity of Language T-Units in EFL written output between before and after the electronic writing treatment?*

The paired Samples Descriptive Statistics (**Table 5**) showed that there was a significant difference in the mean scores for the number of language T-Units in the pre-test (M=22.39, SD = 8.39) and the post-test (M=31.79, SD=7.94); t(27) = -5.51, p = 0.000 (p < .05); (**Table 6**). These results suggested that electronic writing (synchronous) did have a statistically significant effect on the quantity (number) of language T-Units in the written output. Particularly, the study results revealed that when Omani EFL learners were involved in electronic writing (forum), the number of language T-Units increased in their written output.

Table 5: Statistics: Quantity of Language T-units – Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Language T-Units (OFD Pre-test)	22.39	28	8.39	1.59
	Language T-Units (OFD Post-test)	31.79	28	7.94	1.50

Table 6: Statistical Test: Quantity of Language T-units – Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the Difference				
					Lower	Upper			
Pair 1	T-Units (Pre-test) T-Units (Post-test)	-9.39	9.02	1.70	-12.89	-5.90	-5.510	27	.000

Question 3: *Is there is any significant difference in the quantity of clauses in EFL written output between before and after electronic writing treatment?*

The paired Samples descriptive Statistics (**Table 7**) showed that there was a significant difference in the mean scores for the number of clauses in the pre-test (M=13.82, SD = 6.13) and the post-test (M=23.18, SD = 8.48); t(27) = -5.309, p = 0.000 (p < .05) (**Table 8**). These results suggested that electronic writing had a statistically significant effect on the quantity of clauses in the written output. Particularly, the study results revealed that when Omani EFL learners were involved in electronic writing synchronously, the number of clauses increased in their written output.

Table 7: Statistics: Number of Clauses – Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Clauses (OFD Pre-test)	13.82	28	6.13	1.16
	Clauses (OFD Post-test)	23.18	28	8.48	1.60

Table 8: Statistical Test: Quantity of Clauses – Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the Difference				
					Lower	Upper			
Pair 1	Clauses (OFD – Pre-test) - Clauses (OFD – Post-test)	-9.36	9.33	1.76	-12.97	-5.74	-5.31	27	.000

What are the attitudes of the learners towards electronic writing?

The interview found that the participants were generally very positive about writing electronically. For example, one of the interviewees (Participant 1) said, *"I am so happy because it's easy, and it helps to build the future so fast, and I think the other reason that makes me happy: I love electronic things."* Another interviewee (Participant 2) remarked, *"I feel comfortable, and I feel pleasure that we used another type of writing; we changed the routine of the old type of writing which is by paper; for that I feel I used something that will ..I will get benefit."* However, the participants felt some challenges too. One of the interviewees (Participant 3) said, *"Bad feeling. Because I lose everything, every information."* To summarize, the interviews helped the researcher to find out themes such as motivation, newness of ICT and its challenges. Students were motivated to use the new type of writing for their passion for electronic gadgets such as computers, laptops, iPads and Smart Phones, etc. The learners also felt that electronic writing was new to them compared to the traditional paper-and-pen writing, and they felt some practical value in pursuing electronic writing. Nevertheless, the words of the interviewees conveyed that electronic writing posed some difficulties or challenges to them such as what they wrote got deleted abruptly due to their lack of computer or keyboard skills.

Discussions and Conclusion

The study found that electronic writing treatment had a statistically significant effect on the EFL learners' writing performance in terms of quantity – number of words, number of Language T-units and number of clauses. One of the reasons could be their motivation to write electronically.

The qualitative data collected through interviews was analyzed and it was found that students were more motivated to attempt electronic writing tasks interactively such as online forum discussions in EFL teaching and learning for its newness and students' liking for electronic gadgets such as smart phones, tablets and laptops. The learners had a very positive feeling for the use of electronic writing. The interactive element in the electronic writing forum distinguished it from individual electronic writing. The learners expressed their interest to write more electronically in their ELF courses.

The researcher, therefore, recommends that educational institutions in Oman and in the Middle East should incorporate ICT in EFL teaching and learning more effectively. Teachers and students should be given due training in the use of keyboard typing, LMSs (Learning Management System) such as Moodle and Blackboard. This will not only encourage the learners' ELL (English Language Learning), but also equip them to meet ICT demands at the workplace.

References

Bardini, T. (1997). Bridging the gulfs: From hypertext to cyberspace. *Journal of Computer Mediated Communication,* 3(2). Available online: http://jcmc.indiana.edu/vol3/issue2/bardini.html

Barnes, S. B. (1996).Literacy skills in the age of graphical interface and new media.*Interpersonal Computing and Technology,* 4(2), pp.7-26. Available online: http://www.helsinki.fi/science/optek/1996/n3/barnes.txt

Bellynck, V., Boitet, C., &Kenwright, J. (2009). Bilingual lexical data contributed by language teachers via a web service: Quality vs. quantity. *Polibits,* 40, pp.49-55. http://www.scielo.org.mx/pdf/poli/n40/n40a8.pdf retrieved in July.

Bolter, J. D. (1991).*Writing space: The computer, hypertext, and the history of writing.* Hillsdale, NJ: Erlbaum.

Bolter, J. D. (1996). Virtual reality and the redefinition of self. In L. Strate, R. Jacobson & S. B. Gibson (Eds.), *Communication and Cyberspace,* pp.105-120. Cresskill, NJ: Hampton Press.

Bradbury, K. S. (2014). Teaching writing in the context of a national digital literacy narrative. *Computers and Composition*, Volume 32, June 2014, pp.54–70. 5/6/2014 DOI: 10.1016/j.compcom.2014.04.003

Chen, S. (2014). *What is electronic writing.* https://www.academia.edu/6205936/What_Is_Electronic_Writing retrieved on August 10, 2014.

Egi, T. (2010). Uptake, modified output, and learner perceptions of recasts: Learner responses as language awareness. *The Modern Language Journal*, 94(1), pp.1-21.

Eisenstein, E. E. (1983). *The printing revolution in early modern Europe.* Cambridge, UK: Cambridge University Press.

Ferris, S. P. (2003) Writing electronically: The effects of computers on traditional writing. *Journal of Electronic Publishing.* 8(1). Retrieved from http://quod.lib.umich.edu/j/jep/3336451.0008.104?view=text;rgn=main on June 5, 2014.

Ferris, S. P. & Montgomery, M. (1996). The new orality: Oral characteristics of computer mediated communication. *The New Jersey Journal of Communication,* 4, pp.55-60.

Gibson, S. B. (1996a). Is all coherence gone? The role of narrative in web design. *Interpersonal Computing and Technology,* 4(2), pp.7-26. Available online: http://www.helsinki.fi/science/optek/1996/n2/gibson.txt

Gibson, S. B. (1996b). Pedagogy and hypertext. In L. Strate, R. Jacobson & S. B. Gibson (Eds.), *Communication and Cyberspace,* pp. 243-260. Cresskill, NJ: Hampton Press.

Gibson, S. B. (1997). Reality bytes: Publishing in the electronic universe. Paper presented at the Eastern Communication Association Convention, Baltimore, MD.

Hirotani, M. (2009). Synchronous versus asynchronous CMC and transfer to Japanese oral performance. *CALICO Journal,* 26 (2).

https://calico.org/memberBrowse.php?action=article&id=749 retrieved on July 18, 2013.

Johanyak, M. F. (2002). Analyzing the amalgamated electronic text: Bringing cognitive, social, and contextual factors of individual language users into CMC research. *Computers and Composition,* 14(1), 1997, pp.91–110. http://ezproxy.usm.my:2061/science/article/pii/S8755461597900402?np=y retrieved on 5/6/2014.

Johnston, Pete. (1998). Document structure in effective records management project. University of Glasgow, May 1998. http://www.gla.ac.uk/infostrat/ERM/Docs/docstr.htm#Heading4

McGraw-Hill Dictionary of Scientific and Technical Terms, 6th edition, published by The McGraw-Hill Companies, Inc. http://www.answers.com/topic/electronic-writing#ixzz33n4frKNE

Murray, D. E. (1988). The context of oral and written language: A framework for mode and medium switching. *Language and Society,* 17, pp.351-373.

Murray, D. E. (1985). *Literacy at work: Medium of communication as choice.* Paper presented at the American Association of Applied Linguistics, Seattle, WA.

Nagy, W. E and Beers, S. F. (2007). Syntactic complexity as a predictor of adolescent writing quality: Which measures? Which genre? *Springer Science+Business Media,* December, 2007. http://link.springer.com/content/pdf/10.1007%2Fs11145-007-9107-5.pdf retrieved on July 29, 2013.

Negroponte, N. (1995). *Being digital.* New York: Vintage Books.

Nippold, M. A., Mansfield, T. C., Bellow, J. L. & Tomblin, J. B. (2012). Syntactic development in adolescents with a history of language impairments: A follow-up investigation. http://www.uiowa.edu/~clrc/pdfs/syntactic.pdf retrieved July 29, 2013.

Ong, W. J. (1967).The presence of the word. New Haven, CT: Yale University Press.

Ong, W. J. (1977). *Interfaces of the word.* Ithaca, NY: Cornell University Press.

Ong, W. J. (1982). *Orality and literacy.* New York: Routledge.

Pence, James H. (2001). How to do everything with HTML, McGraw-Hill Osborne Media (May 22).

Schmandt-Besserat, D. (1986).The earliest precursor of writing. In *Readings from Scientific American: Language, Writing, and the Computer,* pp.31-46. New York: W. H. Freeman.

Sharp, Linda G. (2005). The complexity of electronic discovery requires practitioners to master new litigation skills, *Los Angeles Lawyer*, 28(8), October 2005.

Stefan, B. K. (2006). *What is electronic*

writing. http://www.arras.net/brown_ewriting/?page_id=54 retrieved on August 4, 2014.

Sudol, R. A. (1993). *Sources, research writing, and hypertext.* Paper presented at the Annual Meeting of the Conference of College Composition and Communication, San Diego, CA.

Van Mersbergen, A. M. (1994). *The return of the addressed: Rhetoric, reading and resonance.* Paper presented at the Annual Meeting of the Central States Communication Association, Oklahoma City, OK.

Webster's Dictionary of the English Language. (1989). New York: Lexicon Publications.

Wolff, W. I. (2013). Interactivity and the invisible: What counts as writing in the age of web 2.0. *Computers and Composition,* 30(3), September 2013, pp.211-225.DOI: 10.1016/j.compcom.2013.06.001. Retrieved from http://ezproxy.usm.my:2061/science/article/pii/S8755461513000376?np=y on 6/06/2014.

Wollin, Lisa. (2001). Creating custom solutions for document collaboration, Microsoft Corporation, April 2001, Applies to: Microsoft® Word 2002.

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Title of the article should be in Caps, bold, centered.

Abstract in about 150 words

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