Journal of Language Studies. **Vol.7, No.2, 2023, Pages (235-246)**
https://doi.org/ 10.25130/lang.7.2.11

IRAQI Academic Scientific Journals — العراقية المجلات الأكاديمية العلمية

ISSN: 2663-9033 (Online) | ISSN: 2616-6224 (Print)

Journal of Language Studies

Contents available at: http://www.iasj.net/iasj/journal/356/about

Iranian EFL Teachers' Perception of Computer, Information, Multimedia Literacy, and Demographic Background

Farzad Sabeki *
MA in TEFL, Department of English Language and Literature, University of Sistan and Baluchestan, Zahedan
sabeki@pgs.usb.ac.ir
&
Hossein Bagheri
Assistant Professor of TEFL, English department, Faculty of Medicine, Zahedan University of Medical Sciences, Zahedan
bagherih@zaums.ac.ir
&
Ebrahim Nejati
English Teacher at Ministry of Education, Shiraz
ebrahimnejati20@gmail.com
&
Rezvaneh Karimzadeh
English Teacher at Ministry of Education, Saravan
r.karimzadeh1374@gmail.com

Received: 10 / 6 /2023 , **Accepted:** 15 / 8 /2023, **Online Published: 31 / 10 / 2023**

Abstract

The purpose of the current study was to explore computer, information and multimedia literacy of Iranian EFL teachers with regard to their demographic background. In order to

* **Corresponding Author:** Farzad Sabeki**, Email:** sabeki@pgs.usb.ac.ir
Affiliation: University of Sistan and Baluchestan, Zahedan, Iran

collect the data, Computer, Information, and Multimedia Literacy Questionnaire for EFL Teachers was distributed to 70 male and female Iranian EFL teachers from Sistan-Baluchestan and Hormozgan provinces. Demographic information of the teachers was operationalized through age, educational qualification, gender, and years of teaching experience. To analyze the data, a number of descriptive and inferential statistics were conducted. The results of the study revealed that there was a very weak positive relationship between CIM literacy and age of teachers. In addition, the findings confirmed that there was a significant difference among male and female teachers' CIM literacy. Furthermore, CIM literacy was not significantly different among teachers with respect to their educational qualifications. This study addresses some pedagogical and theoretical implications as well.

Key Word: EFL Teacher, Computer Literacy, Multimedia Literacy, Demographic Information, Inferential Statistics**.**

تصور معلمي اللغة الإنكليزية كلغة اجنبية للكومبيوتر والمعلومات ومحو الامية والوسائط المتعددة والخلفية الديموغرافية

فرزاد سبيكي

جامعة ستان وبلوشستان – زيهدان – ايران

و

حسين بجري

كلية العلوم الطبية – زيهدان – ايران

و

إبراهيم نجاتي

وزارة التربية – شيراز – ايران

و

ريزيانة كريم زاد

وزارة التربية – سرفان – ايران

المستخلص

كان الغرض من الدراسة الحالية هو استكشاف معرفة الكمبيوتر والمعلومات والوسائط المتعددة لمعلمي اللغة الإنجليزية كلغة أجنبية فيما يتعلق بخلفيتهم الديموغرافية. من أجل جمع البيانات ، تم

توزيع اسـتبيان محو الأمية الحاسـوبية والمعلوماتية والوسـائط المتعددة لمعلمي اللغة الإنجليزية كلغة أجنبية على 70 معلمًا ومعلمة إيرانيًا للغة الإنجليزية كلغة أجنبية من مقاطعات سيستان – بلوشستان وهورمزجان. تم تفعيل المعلومات الديموغرافية للمعلمين من خلال العمر والمؤهلات التعليمية والجنس وسنوات الخبرة في التدريس. لتحليل البيانات، تم إجراء عدد من الإحصاءات الوصفية والاستنتاجية. أظهرت نتائج الدراســة وجود علاقة إيجابية ضــعيفة للغاية بين محو الأمية CIM وعمر المعلمين. بالإضــافة إلى ذلك، أكدت النتائج أن هناك فرقا كبيرا بين الذكور والإناث من المعلمين ومحو الأمية CIM. علاوة على ذلك، لم يكن محو الأمية CIM مختلفًا بشــكل كبير بين المعلمين فيما يتعلق بمؤهلاتهم التعليمية. تتناول هذه الدراسة بعض المضامين التربوية والنظرية أيضًا.

الكلمات المفتاحية: مدرس اللغة الإنجليزية كلغة أجنبية، ومحو الأمية الحاســوبية، ومحو الأمية بالوسائط المتعددة، والمعلومات الديموغرافية، والإحصاءات الاستنتاجية.

1. Introduction

With the widespread use and development of Information and Communication Technology (ICT) in our daily lives, technology provides numerous opportunities and challenges for language teachers and learners (Chapelle, 2001). The popularity of learning a foreign language and integrating technology for educational purposes showed the need for computer or electronic literacy for both language teachers and learners. The highly literate teacher is the one who can use different technologies as educational devices in their teaching processes (Shetzer & Warschauer, 2000). In the field of language teaching and learning, the computer-assisted language learning (CALL) and technology-enhanced language learning research have typically focused on increasing teaching effectiveness and learning outcome through using technology to affect proficiency and achievement, providing feedback, and creating interactive multimedia-based learning facilities and environments; while teacher-technology interaction is taken for granted (Bitter & Davise, 1985). Moreover, considering the current trends in education, a modern English classroom would not be highly qualified without computers, software, internet connections, projectors and a variety of high-tech devices (Overbaugh, 1993). In this context, teachers as the most important agents of education should be able to use information and communication technologies actively during teaching-learning process. So, with wide open eyes, we could claim that the demand for instructing enlightened teachers in terms of using and integrating computer in education appropriately seems essential (Ozsevgec, 2011).

On the other hand, the tsunami of information in today's world has urged modern societies to explore and develop new intelligent search skills and similar behaviors while accessing and using information from different sources. Then, as well as computer literacy, teachers need to be aware of an obligation for acquiring information, identifying, locating, evaluating, and using the information effectively during teaching and learning process (Luke & Britten, 2007). Information literacy formulates the basis for lifelong learning and teaching movements (Çelik & Keskin, 2009). This strategy is common to all disciplines, learning environments, and to all levels of education. It enables teachers to master content

and extend their investigations, become more effective, and assume greater control over their teaching (Son & Robb, 2011). According to the UNESCO, the empowerment of people through Media and Information Literacy (MIL) is an important requirement for fostering equitable access to information, knowledge; hence, "promoting free, independent and pluralistic media alongside information systems". Scholars affirm that society requires multi-skilled teachers, who are able to think in critical situations, pose and solve problems in class and have led in pencil and become more effective for their learners. Along these lines, teachers should update their skills for the use and integrating new technologies in the process of language teaching. Teachers' obligation to the information literacy instruction is becoming continually more important due to the ubiquity of electronic resources and the significant increase in the use of the internet as an information source (Bawden, 2001).

In conjunction with the above-mentioned criteria, technology expands the way people communicate; therefore, a new concept of literacy that is being recognized as a multimedia literacy was born. This term has been associated with literacy to emphasize that literacy extends beyond reading and writing should include a variety of audiovisual forms of representation (Mayer, 2009). Language teachers who want to facilitate the process of learning should bear multimedia literacy in their mind. With regard to this, teachers' ability in handling multimedia tools and seeking to increase students' multimedia literacy skills to enable them to take responsibility of their learning and using these tools out of the class is crucial point (Ware, 2008). As a consequence, educators must examine the needs and capacities of the learners in setting the elements and levels of multimedia literacy (Zamani, 2010).

2. Review of Literature

2.1 Computer Literacy

Computer literacy has been defined in various ways according to the situation and context, since there is no consensus in the definition of computer literacy. However, Williams (2003) defines computer literacy as competence with a few of today's computer applications such as word processing and e-mails.

In a mixed-methods study Dashtestani (2014) uncovered perceptions of 263 Iranian EFL teachers on their computer literacy levels. The results demonstrated that the participants' levels of computer literacy were not adequate for the implementation of CALL. Statistical analyses of the results revealed that the EFL teachers did not make use of a wide range of computer applications. In another recent attempt, Ahn (2019) examined the effects of computer literacy on learner's cognitive aspects and their learning abilities. The results showed that the learner's computer literacy had a close correlation with cognitive aspects abilities such as problem-solving ability, self-directed learning ability, and critical thinking ability generally having a significant effect on cognitive aspects ability.

In a similar vein, Teck, Choo, Hanafi and Osman (2019) explored important issues concerning computer use among 192 primary and secondary school graduate teachers from teacher training colleges in Sabah, Malaysia. The findings showcased that novice teachers had moderate computer aptitudes and use. However computer attitude had significant effects on computer use.

Tafazoli (2019), in a cross-cultural study, explored the relationships of second and foreign language teachers' and students' attitudes towards Computer-Assisted Language Learning (CALL) in terms of their gender, age, and educational level in two countries namely, Spain and Iran. The findings of the study revealed that there is no difference between the attitudes of Iranian and Spanish towards CALL in terms of gender, age and educational status. Gilakjani and Rahimy (2019) discovered the factors that normally influenced Iranian teachers' use of computer-assisted pronunciation teaching (CAPT) in teaching English pronunciation indicating that teachers showed tremendous support and much enthusiasm for using the software in teaching pronunciation.

2.2 Information and Multimedia Literacy

According to Fister (2009), being able to find, judge, and use information is a fundamental intellectual skill that all of our students need. Hence, the responsibility for improving their abilities is not on librarians' shoulders alone; it's a job for the entire campus, offering benefits to all educationalists. Kurbanoğlu, Akkoyunlu and Umay (2006) believe that teachers equipped with information literacy can discern the necessity for information and are able to locate, evaluate, analyze, and use the necessary information appropriately. The availability of massive information on the internet demonstrates the importance of information literacy particularly in academic settings (Probert, 2009).

Boon, Johnson, and Webber (2007) compared English faculty perceptions of information literacy to various international standards, including the ACRL's Information Literacy Competency Standards for Higher Education in the United States. They found out that there was a disconnection between students and faculty scholars. They felt that "increasing English academics' awareness of information literacy as something that they already do as scholarly researchers and educators, what they can more explicitly convey to their students leading to fuller integration of information literacy skills into the curriculum. Esfandiari (2019) examined the digital literacy of Iranian EFL teachers and the effects of gender, teaching experience, and academic degree on their digital literacy. Participants were 239 language teachers in different cities across three academic degrees in Iran and completed digital literacy questionnaire. The results revealed that language teachers possessed moderate levels of digital literacy showing no statistically significant difference between gender and teaching experience in language teachers' digital literacy. However, a statistically significant difference between language teachers' academic degree and digital literacy was detected.

Ware (2008) reports that multimedia literacy motivates students much more than mere print-based literacy. Thus, it can afford language learners alternative visual and verbal ways to create texts. He mentions that technology should be integrated among both in-school and after school learning activities.

In this research, the authors developed the following research questions to delve into the issue more profoundly in comparison with the previous investigations in the literature:

Research Question One: Is there any significant relationship between Iranian EFL teachers' CIM and age?

Research Question Two: Is there any significant relationship between Iranian EFL teachers' CIM and their years of teaching experience?

Research Question Three: Is there any significant difference between Iranian EFL teachers' CIM literacy across gender groups?

Research Question Four: Is there any significant difference between Iranian EFL teachers' CIM literacy and their educational qualifications?

3. Methodology

3.1 Participants

In order to proceed this research, Computer, Information, and Multimedia Literacy questionnaire for EFL teachers was distributed to 70 English teachers in Sistan-Baluchestan and Hormozgan provinces. All the teachers were selected based on convenience sampling. Among these only 61 questionnaires were selected and the rest were ignored since they were partially answered. Their age range was from 20 to 50 (M= 28.46). Among these teachers, 34 of them reported to have a BA degree and 27 of them possessed an MA degree. Their experience range varied from 1 to 25 (M= 5.56) years.

3.2 Instrumentation

3.2.1 Computer, Information, and Multimedia Literacy Questionnaire

To meet the requirements of the present study, Computer, Information, and Multimedia Literacy Questionnaire (CIM-LQ for EFL Teachers) was constructed and validated by Soleimani, Rohani Ravari and Jafarigohar (2018) with three subscales including computer literacy, information literacy and multimedia literacy. Each subscale contained 21, 17 and 9 items, respectively. A five-point Likert scale was used to rank the responses from "never or almost never true for me" =1 to "always or almost always true for me" =5.

Reliability of this scale and subscales were calculated using Cronbach's Alpha and the results are shown in the table below.

Table 1: Cronbach's Alpha Reliability of CIM-LQ

Item	Cronbach's Alpha	N of Items
Computer literacy	0.935	21
Information literacy	0.937	17
Multimedia literacy	0.829	9
Overall CIM-LQ	0.964	47

3.3 Data Collection Procedure and Data Analysis

To collect the data, the questionnaire was prepared using Google Forms and finally was emailed to the teachers politely requesting them to fill it in their free time. Soon after getting the data, they were entered to SPSS version 23. After this phase, normality distribution of data, which is an assumption for parametric tests, was checked with the Kolmogorov–Smirnov test and a Sig. value of 0.200 was found which indicated data were normally distributed. It is worth mentioning that the participants were given assurance regarding the confidentiality of their responses and the use of the date just for research purposes.

4. Results

In order to answer the first research question namely "Is there any significant relationship between Iranian EFL teachers' computer, information and multimedia literacy and age?" Pearson correlation coefficient was run and it was found that there was very weak positive relationship between EFL teachers age and their computer, information and multimedia literacy r (59) = 0.092, p= 0.480, however it did not amount to a significant level.

Accordingly, with the purpose of discovering a relationship between Iranian EFL teachers CIM literacy and their years of teaching experience Pearson correlation was calculated. It was found that there was a weak positive relationship between the two variables r (59) = 0.110, p= 0.398. hence, the relationship was not statistically significant.

Consequently, to respond to the third research question looking for the existence of any significant difference between Iranian EFL teachers' CIM literacy across gender groups, an independent samples t-test was run. The findings are presented in table 2.

Table 2: Obtained Descriptive Statistics

	Gender	N	Mean	Std. Deviation
Computer	Male	33	3.844	0.679
	Female	28	2.989	0.551
Information	Male	33	3.561	0.800
	Female	28	3.226	0.643
Multimedia	Male	33	3.050	0.791
	Female	28	2.448	0.501
Overall CIM	Male	33	168.73	32.150
	Female	28	139.68	24.324

Table 3: Results of Independent Samples T-Test Across Gender

	F	Sig.	t	df	Sig. (2-tailed)
Computer	2.545	0.116	5.331	59	0.000
Information	0.640	0.427	1.777	59	0.81
Multimedia	4.190	0.045	3.601	54.916	0.001
Overall CIM	2.477	0.121	3.921	59	0.000

Regarding the computer literacy, the result of Levene's Test [F= 2.54; p= 0.116] indicated the equality of variances. Furthermore, findings of the independent samples t-test [t (59) =5.33; $p < 0.05$] suggested that there was a significant difference between Iranian EFL male and female teachers' computer literacy. Analysis of means also revealed that male (M= 3.84) EFL teachers were significantly more literate that female (M= 2.98) EFL teachers regarding computer literacy.

With regard to the information literacy the result of Levene's Test [F= 0.64; p= 0.427] indicated the equality of variances. In addition, findings of the independent samples t-test

[t (59) =1.77; p > 0.05] displayed that there was no significant difference between Iranian EFL male and female teachers computer literacy. Analysis of means of the two groups of male (M= 3.56) and female (M= 3.22) EFL teachers confirmed the absence of any significant difference too.

Concerning the multimedia literacy, the result of Levene's Test [F= 4.19; p= 0.045] indicated inequality of variances. Hence, findings of the independent samples t-test [t (54.9) =3.60; p < 0.05] revealed that there was a significant difference between Iranian EFL male and female teachers multimedia literacy. Inspection of means displayed that male (M= 3.05) EFL teachers possess a higher degree of multimedia literacy than their female (M= 2.44) colleagues.

To inspect the overall difference between male and female Iranian EFL teachers CIM literacy, an independent samples t-test was conducted. The result of Levene's Test [F= 2.47; p= 0.121] indicated the equality of variances. Furthermore, the results of the t-test [t (59) = 3.92; p < 0.05] indicated a significant difference in overall CIM literacy among Iranian male (M= 168.73, SD= 32.15) and female (M= 139.68, SD= 24.32) EFL teachers and the analysis of means confirmed that male (M=168.73) EFL teachers outscored significantly their female (M=139.68) counterparts regarding CIM literacy.

Finally, to answer the fourth research question seeking for any significant difference between Iranian EFL teachers' CIM literacy and their educational qualifications. Similarly, independent samples t-test was run whose descriptive and inferential statistics are given below.

Table 4: Descriptive Statistics

	Qualification	**N**	**Mean**	**Std. Deviation**
Computer	BA	34	3.333	0.643
	MA	27	3.601	0.860
Information	BA	34	3.287	0.723
	MA	27	3.559	0.759
Multimedia	BA	34	2.627	0.639
	MA	27	2.958	0.812
Overall CIM	BA	34	149.53	27.299
	MA	27	169.78	36.479

Table 5: Results of Independent Samples T-Test Across Educational Degree

	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Computer	3.445	0.068	-1.392	59	0.169
Information	0.081	0.777	-1.431	59	0.158
Multimedia	2.103	0.152	-1.783	59	0.080
Overall CIM	3.019	0.088	-1.623	59	0.110

To examine the Iranian EFL teachers CIM literacy across their educational degrees (BA or MA) the results of independent samples t-test showed that there was no significant difference in their overall CIM literacy with respect to BA (M= 149.53, SD= 27.29) and

MA (M= 169.78, SD= 36.47) qualifications [t (59) = -1.62; p = 0.110]. According to the above tables, it is evident that there was no significant difference between BA and MA EFL teachers' literacy of computer, information and multimedia separately. However, the analysis of means confirmed the fact that MA EFL teachers perceived to be more literate than their BA counterparts. In MA group the means for computer, information and multimedia were 3.60, 3.55 and 2.95 respectively, but in BA group the means were 3.33, 3.28 and 2.62.

5. Discussion

The results of the study revealed that there was a very weak positive relationship between EFL teachers' age, teaching experience and their computer, information and multimedia literacy. In other words, there was not a statistically significant difference between CIM literacy of old vs. younger teachers. The results are in line with those of Mahdi and Al-Dera (2013) who did not detect any significant difference in using information and communication technology between the two groups of English teachers with respect to their age and experience. The findings of this study are supported by the research finding of Inan and Lowther (2010) who showcased that age did not have any significant impact on technology integration in a study that analyzed the factors affecting technology integration in k-12 classrooms. Tweed (2013) identified the combination of factors that pertain to the implementation of new technologies in the classroom concluding that teachers' age and experience did not play a significant role in the classroom technology use by teachers.

In addition, the findings of this study, showed that there was a significant difference in overall CIM literacy among Iranian male and female EFL teachers. Male English teachers reported to be more literate than female English teachers concerning CIM. Possibly this could be due to the male teachers' higher interest in areas such as computer use as well as information and multimedia. Likewise, in some contexts female teachers tend to show some traces of modest qualities and might believe that men are better at computer use. Findings of this research are compatible with those of Mahdi and Al-Dera (2013) who concluded that there was a difference between male and female teachers' information and communication technology use in language teaching. Male teachers used ICT in their instruction to a greater extent than females. Similarly, Kaarakainen, Kivinen and Vainio (2018) agreed with the above results and concluded that male students and teachers outperformed the female students and teacher in a study examining the ICT skill levels in Finland. However, Motamedi (2020) in a recent study reported no significant difference between male and female English language instructors concerning their computer competency.

Furthermore, the results indicated that there was no significant difference in their overall CIM literacy with respect to educational qualifications of teachers. Teachers with both BA and MA degrees almost perceived to have similar CIM literacy. Unfortunately, in the Iranian context, English teachers do not undergo any computer training at university during their BA and MA courses. In fact, this can keep their computer technology awareness intact, but during MA studies many English teachers are required to create PowerPoint presentations for some courses also their skills and confidence in using computer will naturally increase to some extent. Motamedi (2020) found that English teachers with MA degree had more chances of using computer technology in their

classrooms than English teachers with BA degrees. This could justify such a difference in Iranian educational context, to some extent.

6. Conclusion and Implications

The present study attempted to examine computer, information and multimedia literacy of Iranian EFL teachers with regard to their age, gender and educational degrees. The results showed that there was an insignificant positive correlation between teachers CIM literacy and age. Besides, the results revealed that there was a significant deference in CIM literacy among teachers' gender. Interestingly, the outcomes of the study showed that there was a weak positive relationship between EFL teachers CIM literacy and their years of teaching experience. Also, the findings revealed that there was not any significant difference in CIM literacy of teachers with respect to their educational qualifications. The findings not only add knowledge to the literature in the fields of teacher education and computer assisted language learning, but also, they can be of significant interest to scholars. Educational policy makers, administrators, and curriculum designers particularly in Iran should consider that running computer and multimedia courses for in-service English teachers can boost their skills, competency, and confidence in computer use and electronic, especially in distance teaching modes. The results could also provide raising awareness regarding the extent of their CIM literacy; hence, the need for its improvement.

Acknowledgement

First and foremost, we would like to thank English teachers who participated in this study.

Declaration of Conflicting Interests.

There is no conflict of interest between the authors.

Funding Details

The current study did not receive any funding from any organization.

References

Ahn, S. H. (2019). The Effect of Computer Literacy on Learner's Cognitive Aspects Learning Ability. *Journal of the Korean Association of Information Education, 23*(2), 169–177.

Bawden, D. (2001). Information and digital literacies: a review of concepts. *Journal of Documentation, 57*(2), 218–259.

Bitter, G. G., & Davis, S. J. (1985). Measuring the development of computer literacy among teachers. *AEDS Journal*, *18*(4), 243-253.

Celik, L., & Keskin, M. (2009). The effects of the primary class teachers 'information technology literacy skill level on students' achievement: The case of afyonkarahisar. *Procedia -Social and Behavioral Sciences*, *1*(1), 1167-1171.

Chapelle, C. (2001). Computer applications in second language acquisition, Cambridge, England: Cambridge University Press.

Dashtestani, R. (2014). Computer literacy of Iranian teachers of English as a foreign language: Challenges and obstacles. *International Journal of Pedagogies and Learning*, *9*, 87-100.

Esfandiari, R. (2019). Iranian EFL teachers' digital literacy in academic settings: teacher professionalism in the digital age. *Foreign Language Research Journal*, *9*(3), 691-720.

Fister, B. (2009). Fostering information literacy through faculty development. *Library Issues*, *29*(4), 1-4.

Gilakjani, A.P., & Rahimy, R. (2019) R. Factors influencing Iranian teachers' use of computer assisted pronunciation teaching (CAPT). Education and Information Technologies, 24, 1715–1740.

Inan, F. A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational Technology Research and Development*, *58*(2), 137-154.

Kaarakainen, M. T., Kivinen, O., & Vainio, T. (2018). Performance-based testing for ICT skills assessing: A case study of students and teachers' ICT skills in Finnish schools. *Universal Access in the Information Society*, *17*(2), 349-360.

Kurbanoğlu, S., Akkoyunlu, B., & Umay, A. (2006). Developing the information literacy self-efficacy scale. *Journal of Documentation, 62*(4),730-743.

Luke, C. L., &. Britten, J. S. (2007). The expanding role of technology in foreign language teacher education programs. *CALICO Journal*, *24*(2), 253-267.

Mahdi, H. S., & Al-Dera, A. S. A. (2013). The Impact of Teachers' Age, Gender and Experience on the Use of Information and Communication Technology in EFL Teaching. *English Language Teaching*, *6*(6), 57-67.

Mayer, R. E. (2009) Multimedia Learning. New York: Cambridge University Press.

Motamedi, V. (2020). Attitudes of the English Language University Instructors towards the Use of Technology in Teaching and Learning. *Journal of Education and Learning (EduLearn)*, *14*(4), 629-628.

Overbaugh, C. (1993). Critical elements of computer literacy for teachers. Paper presented at the Annual Meeting of the National Society of Educators and Scholars.

Ozsevgec, T. (2011). Computer literacy of Turkish preservice teachers in different teacher training programs. *Asia Pacific Education Review, 12*(1), 13-21.

Probert, E. (2009). Information literacy skills: Teacher understandings and practice. *Computers & Education, 53*(1), 24–33.

Robb, S., & Charismiadji, I. (2011). Computer literacy and competency: A survey of Indonesian teachers of English as a foreign language. CALL-EJ, *12*(1), 26–42.

Shetzer,M. Warschauer, (2000). An electronic literacy approach to network-based language teaching. In M.Warschauer and R.Kern (Eds.), Network-based language teaching: Concepts and practice (pp. 171–185). New York: Cambridge University Press.

Tafazoli, D. (2019). Attitude towards Computer-Assisted Language Learning: Do Gender, Age and Educational Level Matter?. *Teaching English with Technology*, *19*(3), 22-39.

Teck, W. K., Choo, G. S., Hanafi, H. F., & Osman, R. (2019). Computer attitudes and use among novice teachers: the moderating effects of school environment. *Malaysian Journal of Learning and Instruction, 7,* 93-112.

Tweed, S. R. (2013). Technology Implementation: Teacher Age, Experience, Self-Efficacy, and Professional Development as Related to Classroom Technology Integration. (Unpublished doctoral dissertation). East Tennessee State University, USA.

United Nations Educational, Scientific and Cultural Organization. (n.d.). Retrieved July 13, 2015, from http://www.unesco.org/new/en/communication-and-information/media-development/media-literacy/mil-as-composite-concept/

Ware, P. (2008). Language learners and multimedia: Literacy in and after school. *Pedagogies: An International Journal*, *3*, 37–51.

Ware, P. (2008). Language learners and multimedia: literacy in and after school. *Pedagogies: An International Journal*, *3*, 37–51.

Williams, K. (2003). Literacy and Computer Literacy: Analyzing the NRC's Being Fluent with Information Technology, *Journal of Literacy and Technology*, *3*(1), 1 - 20.

Zamani, B. E. (2010). Successful implementation factors for using computers in Iranian