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ENGLISH LANGUAGE TEACHERS' READINESS FOR THE APPLICATION OF TECHNOLOGY TOWARDS FOURTH INDUSTRIAL REVOLUTION DEMANDS

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ABSTRACT

Using technology has proven to be effective in teaching and learning the English language. With the emergence of the fourth industrial revolution mentioned in Davos 2016, the use of technology in learning and teaching the English language needs to be explored. There is an increasing pressure exercised by the advancements of technology in education. Recently, the use of technology for teaching has become an integral part of successful learning and teaching languages in many parts of the world. Researchers suggested that successful implementation and usage of educational technologies depends mainly on the willingness of teachers as they are the main component in the classroom, who eventually decide on whether to integrate them or not and on how they are to be used in the classroom. The purpose of this qualitative study, therefore, is to measure the English language teachers' readiness and willingness to use the technology in teaching the English language in the era of the fourth industrial revolution. Ten in-service English language teachers participated in the structured and semi-structured interviews. The findings of the interview showed that the English language teachers are not ready yet to use the technology in teaching the English language some ideas were revealed through the interviews 1) traditional and cultural ways of teaching 2) the understanding and attitudes towards technology 3) obstacles hinder teachers from using technology. Finally, the paper presented a number of implications and recommendations that include providing training programs for teachers and forums with experts of the fourth industrial revolution. The policy must be formulated to encourage teachers to use technology to improve the Arab teachers and students' use of the new technology in teaching and learning spaces.

Keywords: — Fourth industrial revolution, 4IR, emerging ICT applications, mobile technology applications, Arabic teachers' readiness, teaching English with technology

INTRODUCTION

The introduction of technology in English language classrooms in schools has been acclaimed to be a necessary course of action for the improvement of teaching methods. The introduction of technology in school is considered a necessity premised on pedagogical rationales. Researchers have suggested that a crucial factor for successful technology integration into the classroom is the teacher (Rhema & Miliszewska, 2010). When the teachers revolutionize their classrooms with mobiles, computers and internet-connected devices, ordinary and low-level students would make massive gains (Kumar, Rose, & D'Silva, 2008). Researchers have found that teacher beliefs play a critical role in transforming teachers' technology integration into more constructivist practices. Therefore, the relations between teachers' beliefs and teachers' practices should help to shed light on how teachers make technology integration decisions (Ertmer, 2005). By the massive advancements of technology, the shape of the teaching process is a big issue of concern. It has significantly improved the importance of using technology in the teaching process. Modern theories like connectivism and engagement showed learning as a social activity and constructive, based on the result of redefining the roles of teacher and learner in the classroom.

The advancement in ICT is undoubtedly rapidly transforming the culture of work. Teachers need to be prepared to use and adopt technology as technology enhances student's learning, teachers should understand the fact that 21st-century classroom must provide technology-supported teaching materials (Padmavathi, 2016). Training, development workshops and school policy should be redesigned to positively influence teachers' adoption and use of technology (Sun, Strobel, & Newby, 2017). Teachers usage of technology will come out with the powerful learning environments. Furthermore, it will transform the educational process of learning and teaching in where the learners will deal with knowledge in a constructive and active way. The technology is not only considering as a tool, which can be added for existing teaching methods but also nowadays the new technologies by the fourth industrial revolution is seen as a modern instrument to enhance and support new ways of learning and teaching process.

LITERATURE REVIEW

Due to the growing demand on effective communication among people from diverse social and cultural background in the workplace or in academic settings, a need to a learn other languages using a variety of learning resources and methods becomes the target of educational research. To meet such a demand, the research in the field of SLA and EFL attempts to find out how a language such as English can be effectively acquired and learnt by EFL/ESL learners. The primary findings suggest employing technologies as a method of learning will make the learner much self-confident, motivated and enthusiastic (Hashmi, 2016). These technologies allow the learners to practice what they have learnt inside the classroom with natives' speakers of the English language outside the classroom. As a result, the use of computer and Internet platforms started to occupy a decent area of study and research (Hew & Brush, 2007).

In spite of the advancement of technology that demonstrated the effectiveness of using technology in classrooms (Alavi, & Leidner, 2001), learning English in Arabs schools and universities through the use of technologies is still far below the international standards (Harb, 2012). Now, the situation in Arab countries started to change as these countries become more open to new technologies. Besides, the new governments take procedures to increase the availability of computers and accessibility of the internet. These procedures open the way for the inclusion of new technologies, such as the use of personal computers, smart boards, electronic resources and other interactive resources for banning the English language in Arabic schools and universities (Dina & Ciornei, 2013).

FOURTH INDUSTRIAL REVOLUTION

The World Economic Forum (WEF) annual meeting, which took place in Davos, Switzerland 2016, highlighted the so-called Fourth Industrial Revolution as one of the most ground-breaking themes we will be seeing in the upcoming years. There was a very strong sense among the meeting's attending business and government leaders that society is on the cusp of technological developments that will fundamentally change the way we live and will transform business, markets and the global economy. during the first industrial revolution, water and steam power was used to mechanize production and equipment. During the second, electric power was used to achieve mass production and division of labour. During the third, electronic and information technology was used to automate production, paving the way for greater economies of scale, according to Klaus Schwab, Founder and Executive Chairman of the World Economic Forum (Schwab, 2016).

TEACHING IN THE FOURTH INDUSTRIAL REVOLUTION

The fourth industrial revolution has its influences on the teaching process within the new era of industry 4.0 (Abdelrazeq et al., 2016). The concept “Teacher 4.0” enlarged to cover the current teaching methods used in the higher education field. Therefore, education needs to adopt new teaching methods to be able to embrace the fundamental changes happening with new technology. Consequently, a new concept of teaching must be considered. This new concept called: “Teacher4.0”, teachers will stand in front of a virtual audience or in a traditional classroom while wearing smart augmented reality devices. The Teacher 4.0 realizes the development and the evolution of these technologies (Karre, Hammer, Kleindienst, & Ramsauer, 2017). Innovative technologies were used to introduce new teaching methods to come up with new teaching scenarios.

CHANGING THE TEACHER’S ROLE

Teacher’s behaviour change as the modern classroom is changing, teachers must adapt their roles and responsibilities. Teachers are no longer teaching in isolation, they now co-teach, team teach and collaborate with other department members (Doucet, et al., 2018). Teachers are not responsible for student learning alone, other stakeholders including administrators, board members, parents, and students all share responsibility with the teacher for educating the students. As lifelong learners, they are active participants in their own learning. They seek out professional development that helps them to improve both student learning and their own performance (Xing & Marwala, 2017).

The new role of the teacher in the 21st Century classroom requires changes in teachers’ knowledge and classroom behaviours. The teacher must know how to: 1. Act as a classroom facilitator 2. Establish a positive, supportive, safe and learning environment for all students 3. Plan for the long-term and short-term learning 4. Encourage students’ curiosity and intrinsic motivation to learn 5. communicate effectively. The success of using and implementing technology in the education sector is hinged on the readiness and willingness of adequate human resource. By the impact of technology and the current fourth industrial revolution, the Ministries of Education have been emphasizing the use of technology in the educational institutions to improve and enhance the quality of education (Xing, 2015). Despite that, there is a need to evaluate and measure how prepared these educational institutions are to use and implement the technology. It is in this context that this paper intended to investigate the readiness and willingness of English language teachers to use the technology in teaching the English language.

PREVIOUS STUDIES ON TEACHERS’ READINESS

Modern technologies are affecting students’ learning skills (Sun et al., 2017.). Teachers’ understanding of the necessity of implementing technology in teaching has not got enough attention of researchers. Teachers’ beliefs about using technology affect their attitude to use technology for teaching and learning.

Policy makers and educational leaders claimed that internet related \ technologies represent important educational innovations (Kumar et al., 2008.). Literature shows that the successful implementation of educational technologies depends largely on the attitudes of educators, who eventually determine how they are used in the classroom (Abukhattala, 2016).

Abdulrahman(2014) measured the teachers' readiness to integrate VLE (Virtual Learning Environment) as part of e-learning. Findings should that teachers lack the knowledge of using technology to teach which indicate that teachers are not yet ready to use E-learning in primary schools even though some school have Internet access but without good service. The study recommended that providing ICT equipment in these schools in the rural areas need to be emphasized again and training program to use E-learning should be provided to teachers

Summak, Bağlıbel, & Samancıoğlu (2010) assessed teachers' technological readiness of primary school teachers in Gaziantep, Turkey. The findings showed a significant difference between technology readiness and gender but there were no significant differences in teachers' readiness across age and subject area of the teachers.

A study was conducted by Kumar et al. (2008) in an empirical study aiming to examine the factors that affect teachers' use of technology and its implications for teachers' professional development strategies. The study reported the relationship between technology acceptance constructs (TAC) and actual usage of computer (AUC) among English language teachers of the secondary school in Malaysia. Overall, the study found that a moderate level was shown at the AUC among the teachers of the secondary school. Meanwhile, perceived usefulness, the constructs of attitude, computer compatibility, job relevance, and perceived ease of use showed a significant positive relationship with AUC.

Al-zaidiyeen, Mei, & Fook (2010) conducted a quantitative study to investigate the teachers' attitudes towards using Interactive Communication Technology for educational purposes and investigate the level of using ICT in the educational settings. Findings showed that the teachers hold positive attitudes towards the use of ICT, the findings also showed that teachers had a low level of ICT use for educational purpose and a significant positive correlation between teachers' level of ICT use and their attitudes towards ICT was found. The findings suggest that ICTs use for educational purposes should be given greater consideration than it currently receives.

Abukhattala (2016) conducted the study using qualitative research study with the aim of investigating English language teachers' readiness to use technology in English language classroom. The findings of this study showed the teachers in Libya are not ready to use the technology in teaching.

METHODOLOGY

RESEARCH DESIGN

The paper employed a qualitative research design as the qualitative design considers as “a means for exploring and understanding the meaning individuals and groups ascribe to social or human problems.” A study that uses qualitative research design often studies issues in their natural settings, intending to interpret phenomena in terms of the meaning that respondents give to researchers. For this study, I relied on qualitative research design for in-depth insights into English language teachers' readiness and willingness. This research study conducted in Malaysia, in the Arabic international schools in Selangor.

PARTICIPANTS

The researcher has chosen thirteen Arab English language teachers to participate in the study. Three of the teachers didn't participate in the research study due to personal reasons. Ten in-service teachers participated in this research. All of them have teaching certificates from different recognised universities around the world. They teach at Arabic international schools in Malaysia, the demographic information as follows

Teacher A: he is from Syria, 40 years old, he has been teaching English for 15 years old, he is teaching in the Syrian international school.

Teacher B: from Yemen, 35 years old, he has been teaching English for 10 years, he is a teacher in IMAS school.

Teacher C: from Iraq, 37 years old, he has been teaching English for 13 years, he is a teacher in an Iraqi school.

Teacher D: from Yemen, 30 years old, he has been teaching English for more than 10 years, he is a teacher in IMAS school.

Teacher E: from Saudi Arabia, 35 years old, he has been teaching English for 10 years, he is a teacher in Saudi school.

Teacher F: from Iraq, 36 years old, he has been teaching English for 9 years, he is a teacher in an Iraqi school.

DATA COLLECTIONS AND ANALYSIS

The data were collected using semi-structured interviews with the teachers participating in the study, the interview included five questions regarding the objective of the paper. The interview is a popular and widely utilized means of collection of qualitative data to explain the data collected from the participants in the study. and figures out that is going on in the minds of the respondents. The key point is that the researcher is unable to observe the respondents thinking and feeling, hence, the interview can play a crucial role in understanding what and how individuals perceive and interpret the world surrounding them. To do so, the researcher sought to first-hand data from knowledgeable and information-rich informants. On the same note, the aim of the interview is to reveal existing knowledge in a way that can be expressed in the form of answers and to become accessible to interpret it too".

Structured and Semi-structured interviews utilized for data gathering. Face to face interviews was conducted between April, May and June in 2018. All the interviews were recorded and saved. Their responses were also saved and printed on a paper. The data were coded and then the themes were written. To improve the accuracy the member check technique was used. After the themes were identified, the reports were e-mailed to the participants and they affirmed them within a week.

FINDINGS AND DISCUSSION

TEACHERS' READINESS

One of the main interests of the study was to know the teachers' readiness and willingness to use the technology in teaching and it was clear from their responses that all the participants were not familiar with modern technologies. So, they are not ready yet to use and implement technology in teaching. Whenever they talked about the technology they meant digital technology of the twelve teachers, eleven teachers considered using the computer as indispensable and necessary in an era of modern technology.

The responses of teachers indicated that teachers still not ready yet to use the technology of the fourth industrial revolution in teaching the English language in the classroom, the views are reflected in Table 1.

TABLE 1. Teachers' Readiness findings

Participant	Statement
Teacher S	"Actually, I don't like technology, so I don't think I'm ready to use the technology in teaching English, I think I can't accept the technology to be integrated within the classroom because I'm not technology literate".
Teacher C	"Hmm, I don't think I'm ready, the technology is still new, and it has never been used in teaching, so I think I still not ready yet, I need to be trained to how to use the technology, especially these new types of technologies which are quite new.
Teacher Y	"Using technology in teaching the English language is a bit hard for me, it's been 15 years I'm teaching in the traditional method, technology is still something new I can't master it in normal purposes rather than in teaching.
Teacher B	"oh ok, concerning the rapid advent of technologies, nowadays we have a new type of technologies come out, I don't think I'm ready to use the new technologies of the fourth industrial revolution. I'm a bit have what called technophobia, I think it's hard for me to use these new technologies in teaching the English language".
Teacher E	"by the emergent of the advent of technologies, new types of technologies come out, I don't think I'm ready to use the new technologies in teaching I already used to teach by the traditional methods. I think it's hard for me to use these new technologies in teaching the English language"

TEACHERS' EXPERIENCE

Most of the considered their lack of skills in using technology as an influential factor. They admitted that because of lacking skills, much more time is required for creating teaching materials. Furthermore, in Table 2, teachers' experience are used to teaching by the traditional methods since a long time ago which makes it hard for them to transfer their teaching methods.

TABLE 2. Findings of Teachers' Experience

Participant	Statement
Teacher Y	"Using technology in teaching the English language is a bit hard for me, it's been 15 years I'm teaching in the traditional method, technology is still something new I can't master it in normal purposes rather than in teaching because I'm not literate in technology".
Teacher C	"The administration needs to make training programs for teachers, seminars with experts in fourth industrial revolution and the new types of these technologies to be used in English classroom"
Teacher A	"In order to make the teachers ready, the ministry of education need to train them through meetings, workshops, seminars and any means can help the teachers to be ready to integrate and use the technology of fourth industrial revolution in teaching the English language"
Teacher F	"I think as a teacher who is used to traditional ways of teaching I need to be trained in computer use in order to teach students using technology, also, I think the students need time to adapt to the technology used in class some might even refuse to use technology in the class because it difficult for them"

TYPES OF TRAINING

Teachers' lacking training in using technology, as the teachers stated, is one of the key elements that hinder them from using the technology in teaching the English language.

The findings of the interview for this question showed that the teachers need training through tutorials, forums, training programs, training workshops and seminars. The views are reflected in Table 3.

TABLE 3. Findings of Types of Training

Participant	Statement
Teacher S	“Surely, I need to be trained by training programs provided by the ministry of education, also, by meetings and forums with experts in integrating technology to the classroom, so I can be ready to use the technology of fourth industrial revolution in teaching.
Teacher C	“The administration needs to make training programs for teachers, seminars with experts in fourth industrial revolution and the new types of these technologies to be used in English classroom”.
Teacher A	“In order to make the teachers ready, the ministry of education need to train them through meetings, workshops, seminars and any means can help the teachers to be ready to integrate and use the technology of fourth industrial revolution in teaching the English language”.

ROLE OF INFRASTRUCTURE

The findings concluded from participants showed that the infrastructure doesn't help the teachers, they stated that infrastructure is a major obstacle preventing them from using technology in teaching English in the classroom. The views reflected below in Table 4.

TABLE 4. Findings of Role of Infrastructure

Participant	Statement
Teacher S	“No, I don't think the infrastructure can help us in using these kinds of advents technologies because most of the schools nowadays still don't have internet connections or even doesn't have computers which are the most basic things for integrating technologies”.
Teacher C	“I think the major obstacle is the infrastructure, even the teachers if they have the willingness to use the technology in teaching, the infrastructure can't help them in using it because some schools still don't have internet connection or computers that the students can use”
Teacher B	“The problems for teachers besides the needed training are the schools and the old infrastructure which doesn't help the teachers and doesn't give them the motivation to use these new types of technology in the classroom”.
Teacher A	“I don't think the infrastructure can help us in using these kinds of advents technologies because most of the schools nowadays still don't have internet connections or even doesn't have computers which are the most basic things for integrating technologies.

TEACHERS' NEEDS

The findings of the interview collected from the participants showed that the teachers think that administration or the ministry shall provide the schools with computers, internet connection devices, LCD screens, collaborative furniture, flexible seats as mention in Table 5.

TABLE 5. Findings of Teachers' Needs

Participant	Statement
Teacher S	“Yes, I think the administration must provide us with all needed components like computers, internet connections devices and all the devices we need to use the new technologies of the fourth industrial revolution”
Teacher D	“Sure, the administration must provide the schools with all internet devices and computers, and the need component of the 21 st -century classroom like LCD touch screens and AR devices.
Teacher C	“I think that the administration should at least provide WIFI access, then the teacher can use his/her own laptop or device”
Teacher F	“I think that the administration should at least provide internet connection devices (WIFI), computers and other devices related to technology, then the teacher can use his/her own laptop or device”.
Teacher A	“I think the administration or the ministry shall provide the schools with computers, internet connection devices, LCD screens, collaborative furniture”

DISCUSSION OF FINDINGS

The findings of the study showed that the teachers are not ready to use the technology in teaching the English language. The findings are on the line with the study of Abukhattala, (2016), also the findings in accordance with findings reached by Abdulrahman (2014), the findings showed that the students in the district Simunjan are not ready to use the technology of ICT in teaching. The research looked at the obstacles faced by the teachers to use technology for teaching the English language. The findings showed that teachers face many obstacles such as the shortness of technological equipment, the old infrastructure, lack of skills and training, lack of experience and the use of traditional methods that hindered the teachers from using technology in teaching the English language. The results of this research are in accordance with the study has conducted by Kamaruddin, Abdullah, Idris, & Nawi (2017).

Teachers need several types of devices that facilitate the use of technology in teaching such as mobiles, computers, internet connections devices, augmented reality devices and good internet server. The findings of this study have approved some influential factors of previous studies that had already been identified in the literature. However, this research has brought out some important factors to consider when teaching the English language as a second or foreign language, such as the unfamiliarity with the fourth industrial revolution, the opportunities for real use of the language and the difficulty of the teaching materials for the students. The teachers participated in the study, as stated think there is no connection between teaching English and technology. The teachers' background, experience in teaching and gender did not consider as important factors in gauging the teachers' readiness to use the technology in teaching the English language as previous studies suggested. Moreover, this research goes steps further than previous studies as it's one of the prior studies that look for the demands of fourth industrial revolution by gauging the English language teachers' readiness for technology applications and technology-based language teaching. These findings indicate that the teachers need to be trained in using the technology, they also need to be provided with suitable devices that can make them able to applicate these types of technologies. Lastly, the infrastructure's design of the schools needs to be renewed to be able to fit the use of new technologies in teaching and learning.

CONCLUSION

The study was designed to measure the English language teachers' readiness for using technology in teaching the English language at international Arabic schools in Malaysia. The findings showed that the unreadiness and unwilling of teachers is not because of the resistance or the adoration of technology, but rather because of major obstacles and various factors that hinder them from using technology in teaching the English language such as the lack of training and the old infrastructure etc. It is recommended that the higher education and the decision makers in Arab countries provide enough equipment in international Arabic schools in Malaysia in order to provide the high school students more opportunities to enhance their English learning through the use of technology of fourth industrial revolution. Moreover, that will enable the teachers to teach using the modern teaching methods.

It is also recommended that the teachers in Arabic international schools in Malaysia receive proper training in using technologies in teaching the English language so that they will be able to guide and support learners of English using these technologies in the classroom. Teachers should also receive motivation and encouragement to use the technology by showing the importance of such technology in teaching. Such training should be conducted on a regular basis for the teachers of English on how to effectively use the technology for improving students' learning English, autonomous learning, communication, and other academic purposes. The focus of such training should vary from investigating the basic skills of using these technologies of the teachers with little or lack of knowledge and basics in using the technology to cover other more complex and more advanced skills of another more skilled teacher.

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