Towards the Education 4.0, Readiness Level of EFL Students in Utilising Technology-Enhanced Classroom

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The emergence of the fourth industrial revolution has had significant effects on our everyday life especially in improvising and enhancing the quality in all aspects especially in terms of education. The role of technology has taken its place in determining the future path with the promise to make it better in terms of innovation and quality. Thus, technology plays a prominent role in enhancing and innovating the quality of education nowadays which is in coherence and relevance with the aim of the study which is to investigate the readiness level of EFL students in utilising technology in learning English in the classroom. The method used in this study is a quantitative approach which was adopted to analyse the data gathered from the participants. 200 EFL high school students participated in the study to answer an adopted questionnaire. Based on the descriptive and inferential statistics using SPSS 20, the Arab high school students are ready to use the technology to learn the English language. The findings of this study provided a contemporary view of teachers and students’ readiness and motivation to the use of technology and the components of classroom English language. The implication of the study is as a reference for a benchmark for ministries of education in Arabic countries. The new insight of the importance of students’ level of readiness of the utilisation of technology in the classroom is especially in English language learning sessions stepping towards education 4.0 and meeting the demands of the fourth industrial revolution.

Key words: English Language Learning, EFL Students, Educational 4.0, Fourth Industrial Revolution (4IR), Technology-enhanced Classroom.
Introduction

Several forces are present that create a sense of pressure on the educational approach to get transformed for the future, a system that will drastically revolutionise the teacher’s role. Among these forces are the fourth industrial revolution (World Economic Forum, 2017; Schmidt, 2017), innovative teaching methodologies (Suárez et al., 2018; Maldonado-Mahauad et al., 2018), information eruption because of the increasing internet use (Reyna, Hanham, & Meier, 2018), lifelong learning (Hinzen & Schmitt, 2016; Berry, 2018), artificial intelligence (AI) (Schmidt, 2017), and the shift to open education platforms (Paskevicius & Hodgkinson-Williams, 2018; Redecker, 2017). This research identified essential competencies of online and digital teachers who must get used to the internet and the changing digital scenario of the future.

Teachers need to be aware of the upcoming technologies to decide what is to be done to stay relevant and serve the global community in the coming years. The new educational approach is going to prepare the learners for professions that are yet non-existent due to the fourth industrial revolution, innovative technologies, and the explosion of information. The necessity for lifelong learning is increasing significantly around the globe, as to get relevant jobs people need to obtain modern and appropriate education (Kolenick, 2018; Patterson, 2018). Thus, nations have started to implement digital technology for learning for their citizens to succeed in the new millennium. As there is a shift in education towards the motto “education for all’ and for achieving Sustainable Development Goal 4 of the United Nations to provide quality learning systems for all, use of digital technologies is on the rise, specifically for learners located in remote places or that are unable to attend school physically due to an absence of sufficient infrastructure (Gaskell, 2018; UNESCO, 2015). For such a future, it is essential that teachers obtain training in the digital technology to offer virtual learning to students located in remote places and also to wandering people (Ally & Tsinakos, 2014; Dyer, 2016). With technology, education is student-centric instead of teacher-centric; students learn and get a comprehensive knowledge about the world through active learning (Anagün, 2018; Guo, 2018). Flexibility and availability of learning prospects signify that learners can themselves determine when to learn and from where.

The utilisation of technology in the era of the fourth industrial revolution as a tool and medium of instruction will harmonise with the powerful learning environment. It will transform the educational process of learning and teaching where learners are able to gain knowledge in a constructive and active way (Ahmad et al., 2019). The technology of the fourth industrial revolution is not only considered as a tool that can be added for existing teaching methods, but also nowadays is seen as a modern instrument to enhance (Razak, Alakrash, & Sahboun, 2018) and support new ways of learning and teaching processes. Fourth industrial revolution technology will be integrated into the learning and teaching process in various educational
institutions in the world. The use of fourth industrial revolution technology in the classroom is very important to provide opportunities for learners to learn and operate in the age of technology.

These environments have undergone rapid change with the arrival of digital natives and the inclusion of technology in teaching and learning which are common nowadays. For example, the internet applications of educational tool mode like e-learning, blended learning and Massive Open Online Courses (MOOCs) have resulted in a re-evaluation of the transmission-based system where the teacher serves as the source of knowledge. There is an increased interest in helping to facilitate learning and helping learners construct and personalise learning. Alstete & Beutell (2018) call for a better link between learning and learning environments and this need is also increasingly visible in schools today. Schools across the globe have embarked on significant measures to relook at the traditional classroom design to cater to youth who are increasingly independent, self-directed and looking to produce and create knowledge rather than simply memorising facts. Today’s classrooms need to be “arenas for innovative teaching practices that are not easily implemented in more traditional classrooms” (Breslow et al., 2013). As Micklethwaite & Knifton (2017) posit, learning spaces are nestled within virtual and real environments today.

**Fourth Industrial Revolution**

The fourth industrial revolution is the newest industrial transformation with “cyber-physical systems”, big data, automation, data exchanges, cloud, robots, artificial intelligence and internet of things, and (semi-) autonomous industrial techniques to understand the new technologies and innovation. The McKinsey Global Institute framed the 4IR as the age of “cyber-physical systems”. One of the consequences of the fourth industrial revolution is that “The blurring of technology into every part of our lives is becoming the norm (Hirschi, 2018). However, the impact that the fourth industrial revolution will have or the direction it will take is not yet known. A wave of technology is now crashing into our personal and professional lives like a ton of bricks” (Hawken, Lovins, & Lovins, 2013). The fourth industrial revolution (IR 4.0) has given new stimulus for educational changes and transformations. As of late, experts in the educational field recognised the significant effect that butch technological innovations in information computer technology is having on the educational process (Ferneda & Ruffoni, J.2015). The experts concur that the education process in the fourth industrial revolution will be formed by innovations and will for sure need to prepare students to produce innovations.
Education 4.0

Education 4.0 is supposed to affect all the domains (Cognitive, Affective and Psychomotor). The fourth industrial revolution will require humans with adequate data and digital literacy. Students in all fields will, therefore, need to obtain those digital and data literacies during their studying (Anggraeni, 2018). Convergence of machine and men during the 4IR means that the disciplinary distance between social sciences and humanities, and science and technology will be reduced. One of the important fragments of the 4IR will be in the convergence of disciplines like computer science, business administration and mechanical engineering. In collaboration with industry, universities, therefore, need to come up with new disciplinary programs to fit the changes (Hussin, 2018). Big data, mobile computing, social network and cloud as innovations, created a chance to construct a learning environment that allows self-learning which is independent of place and time. In the education of the fourth industrial revolution, students will be able to design their own pathway depending on their personal educational goals. Meeting the high demands for ubiquitous M-learning will impose using important tools like MOOCs, remote labs, game-based learning, virtual classrooms and virtual labs (Ahmad et al., 2019). With the rising level of complexity, there is a vital need to impart deeper learning. This can be done by the increased use of practice-oriented learning and the use of blended project and scenario-based learning. As experts suggest innovation as maker space, it characterised as learning by doing and as open source innovation which should be utilised as a means to train students.

Education in the fourth industrial revolution will have profound transformations in many models like industry, so that to cope with the rapid and disruptive changes, there is a need for new ways to recognise and certify workplace-based learning (Agustina & Fajar, 2018). That requires a partnership between industry and educational institutions. Some other specialists suggest that high school and undergraduate programs need to be compressed, supplemented by training and subsequent in-depth studies. Some other specialists think that fixed degree programs may not be effective (Agustina & Fajar, 2018). Therefore, the ministries of education and universities need to re-think the academic and high school programs that will be shaped in the future. To recognise that, a new system of certification, practice-oriented, and competency-based learning will be there.

The above-mentioned aspects require a transformation in the teachers’ role as educators and the necessity to be aware of the knowledge, comprehension and willingness level to manage the transformation of the educational system with respect to the 4IR. For a nation to be able to generate professionals that fulfils the demands of the workplace, the first necessity is to prepare the human resources. For preparing these resources, first of all, the teachers must know the transformations taking place in the world and recognise the role and strategies of teaching-learning methods which requires improvement to achieve the goal of becoming a competitive
nation in the fourth industrial revolution. Also, along with the rapid expansion of the worldwide industry and economy, teachers are encouraged to get trained in the digital technologies domain, thereby, getting themselves ready to face the challenges of the 4IR. It is essential that they have a clear grasp of the modern technology to improve educational approach inside classroom (Berita Harian, 2018). They must also be equipped with an aptitude to think ahead and with the new sets of skills. Therefore, to respond to the call of the government and be aligned with the educational transformation with respect to the fourth industrial revolution, this research focuses knowledge, comprehension and willingness level of the teachers to manage the transformation of the educational system with respect to the 4IR, as they are the determining force of the success of the educational transformation. Those teachers not willing to adapt to the changes will face difficulties and become a burden in implementing the change in the educational paradigm.

**Theoretical Framework**

Based on the engagement theory, although education being centred on the learners is being put into practice today (Boling & Beatty, 2010; Bonnici, Bajjaly, Julien, Klose, & Maatta, 2016), innovative technologies will turn learning into something adaptive and more individualised in the future since there will be more use of smart instructional techniques (Gros, 2016; Hwang, 2014). It will enable learners to learn when they are at the height of the learning curve instead of travelling to a particular location at a specified time for learning. Certain learners experience peak learning in the evening time while others are more comfortable during the morning time. The WISE conducted a review with 645 scholars in different regions around the world (Qatar Foundation, 2014) wherein 83% of the scholars reported that they thought learning will be individualised to satisfy the requirements of the individual learner. Most of the scholars mentioned that educators will have to serve as a guide instead of directly delivering the information. As learning notes will be digitised primarily, learners will use the technology to read and view learning material, rendering the teacher as a facilitator. The survey’s outcomes indicate that the educational approach should be that learners are provided the skills for independent learning. The concept of engagement is a result of long-range instructional practice, but it can even be used for the process of education. By technological progress in all aspects of life, the content actually learned by the learners in the classroom is far from transforming according to the progress in the current social scenario due to the lack of digital technology availability in the educational course system. The growth of the current network has already made it a significant part of the lives of the people, and wide networking resources let the educators as well as classmates benefit immensely. The concept of engagement can make the current classroom teaching-learning process more effective. It is based on the principle that the learner will not be effective unless being an active element of the teaching-learning process. The improvement in these teaching-learning activities is based on the interaction among the learners and others and achieves valuable results simultaneously. The
basic concept of engagement theory is to establish a successful support group in the non-
conventional teaching environment.

**Literature Review**

The fourth industrial revolution (4IR) concentrates on developing a “smart” environment 
within the production structure. The most significant changes occur in the information 
technology domain and the field of manufacturing operations. Certain leading creators of 
technology for the 4IR are presented in the review. What the 4IR does now is rising massive 
uncertainty. Business ventures, governments and educational organisations now perceive their 
reaction to this change (Razman, 2016).

**Previous Studies of Students’ Readiness**

It is not sufficient to evaluate the knowledge and competencies at the end of a program or a 
course to measure the number of students who have learned. It is also required to know what 
they have learned so we can determine more specifically the competencies and knowledge they 
have acquired during the program or course. There are different techniques or methods used to 
evaluate the students’ skills and willingness when the course or the program ends. In a research 
that measures the aspects of willingness of senior school students, Lea Dean Folds employs 
the Work-Keys® method to represent the characteristics of high school senior students and the 
scores on steps of work readiness. The ACT Work-Keys system is employed in high schools 
in the entire nation to help learners in determining the way in which they can enhance their 
skills for improved job prospects. Scores calculated through Work-Keys help the recruiting 
firm to do away with guesswork for deciding whether the candidate is suitable for employment 
in the firm (Folds, 2013).

Research has been conducted by Caballero, who employed qualitative methods to identify the 
aspects of job willingness. She then created a scale known as the WRS (Work Skills Scale) to 
assess the work willingness in the graduates. Qualitative data can be categorised in 10 broad 
categories that are representative of job readiness, namely maturity, motivation, organisational 
awareness, self-development/growth, interpersonal inclination, technical attitude, problem 
solving, work attitude, endurance and conformity. Holly Hungerford-Kresser (2016) has 
employed different techniques to measure the willingness of students in the research. He 
applied qualitative research that was a combination of action research techniques (Somekh, 
2009, 2006) and case studies (Merriam, 1998; Stake, 1995). The action research approach is 
regular, elegant, and allows me to remain unbiased, adapting to a proper way for the task at 
hand (Hungerford-kresser, 2016, Razak et al., 2019). From earlier studies, it can be concluded 
that majority of them have employed mixed techniques to examine the readiness of the 
students.
Methodology

Research Design

The study aimed to look at EFL students’ readiness towards using technology in learning the English language and employs a fully quantitative research design to collect and analyse the data. The selection of a descriptive statistical design for the current study was made based on the feedback elicited from previous studies which handled the same area and employed the same design. Researchers found this design suitable for collecting data that can be statistically analysed and described (Creswell & Poth, 2016). Gay & Mills (2019) noted that descriptive studies are "useful for investigating a variety of educational problems, and concerned with assessing attitudes, readiness, opinions, preferences, demographics, practices, and procedures".

Participants Selection

A sampling frame for this study is constructed from five international schools in Malaysia. A proportional random sampling technique is used to generate the samples. High school and secondary school students constituted the sample of the study. The total population of the students in the selected schools is 420. As suggested by Krejcie and Morgan (1970) in their statistical table to determine the sample size from a given population, for a population of 400, sampling of at 196 is required the selection of the chosen schools was based on the list international schools in Malaysia in January 2020. From the list, 5 Arabic international schools were selected.

Data Collection

The authors developed a questionnaire to collect data. The questionnaire contained two sections. First, demographic information that included gender, age, owning a mobile phone, screen time, preferred teaching style etc. The second part tackled questionnaire technology readiness scale. A pilot study was conducted where data was collected and analysed to test the reliability and validity of the instrument using Cronbach’s Alpha test. The questionnaire was validated by two professors and two assistant professors at a public university. The questionnaire integrated the five-point Likert scale with the endpoints of “Strongly agree/Strongly disagree” for the respondents to select the level of their readiness on the provided items accordingly. A five-point Likert scale was used in the instrument of this study because the finer five-point scale enables participants to sort out items in a manner closer to the structural pattern of the scale, resulting in higher reliability and validity (Chang, 1994).
Data Analysis

SPSS 22.0 software was used to analyse the data descriptively to measure the values of mean score and standard deviation. The range determined is based on the formula and as used by Hanson and Creswell (2005). According to these researchers, the mean scores of agreements range from 1.00 to 2.33 are construed as low. Mean scores of agreements range from 2.34 to 3.67 are construed as moderate and mean scores of agreements range from 3.68 to 5.00 are construed as high.

Results and Analysis

The findings of demographic information and questionnaire answers are presented. The percentages and frequencies of gender, age, availability of internet access, access types, screen time, phone type owned, activities types and preferred teaching style are presented.

Data showed that 67% (n=135) of the respondents are male while 33% (n=65) are female. As for age, findings showed that half (45%) of the students are aged between 15 to 16 years old (n=90), while 30% (n=60) of the students are 17-18 years old. However, only 25% (n=50) students are 13-14 years old.

Table 2: Findings of respondents’ age and gender

<table>
<thead>
<tr>
<th>Demographic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>135</td>
<td>67</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>33</td>
</tr>
<tr>
<td>13-14</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>15-16</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>17-18</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>

Findings of the demographic information of owning a hand phone by majority of the students, 95% (n=195), shows that the students are already familiar with technology devices. Table 1 presents the demographic data.

Table 3: owning a mobile phone

<table>
<thead>
<tr>
<th>Owning hand phone?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>193</td>
<td>91.5</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>7.2</td>
</tr>
</tbody>
</table>
The data showed that the students own modern phones: 68% (n=135) of the students own a 4G phone and 32%(n=65) own a 3G phone. These types of phone enable students to access to internet.

**Table 4:** Mobile phone generation type  
<table>
<thead>
<tr>
<th>Mobile Type</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2G</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3G</td>
<td>65</td>
<td>32%</td>
</tr>
<tr>
<td>4G</td>
<td>135</td>
<td>68%</td>
</tr>
</tbody>
</table>

As for using technology for learning purposes, 50% (n=100) have used technology devices to learn for less than 6 months, 35% (n=70) of the students have used technology for learning purposes for one year. This means the students are aware of the importance and the key role of technology in learning the English language.

**Table 5:** Technology usage for learning purposes  
<table>
<thead>
<tr>
<th>Technology usage for learning purposes</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>never used</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>less than 6 months</td>
<td>100</td>
<td>50.0</td>
</tr>
<tr>
<td>Around 1 year</td>
<td>70</td>
<td>35</td>
</tr>
<tr>
<td>around 2-3 years</td>
<td>20</td>
<td>10.</td>
</tr>
</tbody>
</table>

Not surprisingly, as we are in the technology revolution area, data showed that majority of the students have internet access 95% (190) at home, 85% (170) at cybercafe. This means that students can easily access their learning material anytime, anywhere making the learning process easier. However, only 25% (n=50) of the students have internet access at the school. This raises the problem of un-readiness of infrastructure of the schools.

**Table 6:** Internet access  
<table>
<thead>
<tr>
<th>Access</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I access the internet at home</td>
<td>190</td>
<td>95%</td>
</tr>
<tr>
<td>I access the internet at cybercafé</td>
<td>170</td>
<td>85%</td>
</tr>
<tr>
<td>I access the internet at school</td>
<td>50</td>
<td>25%</td>
</tr>
</tbody>
</table>

From the data on mobile phone activities, the students used five common tasks. The activities were: surfing the internet (85%) chatting (79.1%), making phone calls (46.8%), taking photos (38.7%). Other activities which were sometimes used by the students include: MMS (52%), making phone calls (44.5%), recording voice (51.1%) and taking photos (46.8%).
Table 7: Activities done by students using technology

<table>
<thead>
<tr>
<th>No</th>
<th>Activity</th>
<th>Never</th>
<th>%</th>
<th>Sometimes</th>
<th>n</th>
<th>%</th>
<th>Often</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making phone calls</td>
<td>0</td>
<td>0.0</td>
<td>112</td>
<td>47.0</td>
<td>92</td>
<td>39.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Chatting</td>
<td>1</td>
<td>0.4</td>
<td>41</td>
<td>17.4</td>
<td>186</td>
<td>79.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Taking photos</td>
<td>15</td>
<td>8.6</td>
<td>95</td>
<td>40.7</td>
<td>90</td>
<td>37.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Surfing the internet</td>
<td>88</td>
<td>38.1</td>
<td>99</td>
<td>42.1</td>
<td>50</td>
<td>21.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sending/checking e-mails</td>
<td>170</td>
<td>70.0</td>
<td>10</td>
<td>5.0</td>
<td>20</td>
<td>10.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As for preferred teaching style, the results reflect what was expected 75% (n=150) of the respondents prefer the modern style of teaching which is technology-based teaching. This means the students are aware of the effective role of this teaching style.

Table 8: Preferred teaching style

<table>
<thead>
<tr>
<th>Preferred Teaching Style</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern/ technology based</td>
<td>150</td>
<td>75</td>
</tr>
<tr>
<td>Traditional/ Teacher centred</td>
<td>50</td>
<td>25</td>
</tr>
</tbody>
</table>

Not surprisingly, as a Z generation, respondents spend a long time on screen, as data showed 47% (n=95) spend 21-30 hours per week and 40% (n=80) spend 11-20 hours per week on the internet.

Table 9: Time spent on the internet

<table>
<thead>
<tr>
<th>Screen Time</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 hours</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>11-20</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>21-30</td>
<td>95</td>
<td>52</td>
</tr>
</tbody>
</table>

Results of Students’ Readiness

Technical Skills

Data shows the students are in between a moderate level and being ready. The highest mean score is 4.3 which indicates that students use YouTube intensively in learning English. This means that YouTube is a very effective application in enhancing students competency, especially listening. This kind of application gives the students a chance to listen to native speakers’ classes and be able to contact them. Also, a high mean score was given by the students in showing agreement on the using the internet to book flight tickets and shopping online which represents the Internet of Things (IoT) as one of the main concepts of fourth industrial revolution. This means that the students are able to use technology for non-
educational purposes, giving the ability to use technology for learning purposes. The majority of the students agreed that they have the technical skills to prepare presentations (Power Point and Prezi) to cope with new teaching styles like flipped classroom and a student-centred approach. Surprisingly, students showed moderate levels of agreement in using e-mail to submit their assignments and discuss with teachers. This indicates that students should be encouraged to use e-mail frequently as most learning materials and messages nowadays are sent or shared through e-mail.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have the skill to access internet applications to search for English language learning materials</td>
<td>3.85</td>
<td>.77</td>
<td>High</td>
</tr>
<tr>
<td>I have the skill to access spreadsheets to key in data</td>
<td>3.45</td>
<td>.85</td>
<td>Moderate</td>
</tr>
<tr>
<td>I have the technical skills to prepare a classroom presentation using Prezi and Power Point</td>
<td>4.00</td>
<td>.77</td>
<td>High</td>
</tr>
<tr>
<td>I use e-mail to submit my classroom assignments and discuss with my teachers and classmates</td>
<td>3.60</td>
<td>.70</td>
<td>Moderate</td>
</tr>
<tr>
<td>I use the internet to book flight tickets, grab a taxi and purchase items</td>
<td>4.1</td>
<td>.83</td>
<td>High</td>
</tr>
<tr>
<td>I use YouTube to learn English visually</td>
<td>4.3</td>
<td>.78</td>
<td>High</td>
</tr>
</tbody>
</table>

**Readiness towards using Technology**

The study investigated the English language students’ readiness level to use the technology for learning the English language. The students’ highest mean score was 4.57 as they showed high agreement on the benefit of using technology in enhancing their English competencies. As a net-generation, students believe that books are not the only source of knowledge in learning English as they can easily access unlimited sources of learning materials online. This means teachers should adapt their teaching styles to integrate technology inside the classroom. As the respondents of the study are EFL students, they need to depend on dictionaries in translating the unfamiliar and new vocabularies, therefore, with the presence of technology, students are able to translate easier and faster by downloading online dictionaries. The respondents showed high agreement on this benefit as the mean score is high at 4.47. Similarly, high agreement of a 4.20 mean score showed by the students one advantage of the internet where the students are able to learn English anywhere at any time.
The results indicate that the students, in fact, use the internet activities to learn English language skills such as speaking and listening. These results indicate that the students are ready to use internet and computers to learn the English language by using other interactive platforms to assist their learning process. Furthermore, the findings showed that the students are literate in using various internet applications which subsequently shows that they are ready to utilise the technology in learning the English language and for other purposes as well.

Table 11: Results of students’ readiness

<table>
<thead>
<tr>
<th>Questionnaire Items</th>
<th>Mean score</th>
<th>S. Deviation</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use the internet to learn English everywhere and at any time</td>
<td>4.20</td>
<td>.67</td>
<td>High</td>
</tr>
<tr>
<td>I use technology to reinforce the content being taught in the class</td>
<td>4.00</td>
<td>.68</td>
<td>High</td>
</tr>
<tr>
<td>I use the internet to download Arabic-English dictionaries to learn English vocabularies</td>
<td>4.47</td>
<td>.71</td>
<td>High</td>
</tr>
<tr>
<td>I think using the internet in English classrooms can enhance my learning process</td>
<td>4.57</td>
<td>.67</td>
<td>High</td>
</tr>
<tr>
<td>I think I can learn better if various technological instruments are used in classroom activities</td>
<td>4.18</td>
<td>.75</td>
<td>High</td>
</tr>
<tr>
<td>I think books are not the only source to learn the English language</td>
<td>4.50</td>
<td>.70</td>
<td>High</td>
</tr>
</tbody>
</table>

**Readiness to Education 4.0 Concepts**

Education 4.0 imposes a massive change in teaching and learning style through the use of technology-enhanced environments. However, the students responded positively to these concepts, as showed in the table below. Students have the highest agreement (mean score of 4.57) on the use of technology in learning English based on the concept ‘Heutagogy’ where the students can learn English using the internet without the presence of the teacher. Students have the ability to learn by connecting to the cyberworld which represents the concept of Cybergogy in learning as indicated by the mean score 4.40. Similarly, the same pattern of agreement also emerged from the representation of the Paragogy concept which means the students are able to learn from their friends in the classroom. A moderate level of readiness was shown by the students (3.50 mean score) in relation to the use of robots in learning English as one of the new concept of fourth industrial revolution. Therefore, the results show that students are ready to use technology to learn the English language in the classroom. Moreover,
results indicate that students are literate in using the internet to learn the English language without their teachers’ presence and by connecting to the cyberworld to learn from each other. This implies that they are ready to use the technology of the fourth industrial revolution in learning the English language in classroom.

Table 12: Results of Education 4.0 concepts readiness

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can learn English language using the internet without my</td>
<td>4.57</td>
<td>.67</td>
<td>High</td>
</tr>
<tr>
<td>teacher’s presence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can learn the English language from my friends in the</td>
<td>4.40</td>
<td>.70</td>
<td>High</td>
</tr>
<tr>
<td>classroom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning will be more effective by using robots in English</td>
<td>3.50</td>
<td>.71</td>
<td>Moderate</td>
</tr>
<tr>
<td>language classroom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I learn by connecting to the cyberworld</td>
<td>4.40</td>
<td>.70</td>
<td>High</td>
</tr>
</tbody>
</table>

Discussion

The outcomes demonstrate that the participants were willing to use digital devices for learning as per definition of readiness provided by Turnbull et al (2010). Readiness means “the quality or state of being ready; aptitude; willingness; promptness; prepared for the action one is about to perform; prepared for an experience; supplied or equipped with what is required for certain event or act; and prepared for instant action or immediate” (Turnbull et al., 2010). Owning a cell phone and the ability to perform tasks utilising modern technological gadgets approve that the learners were willing indirectly because the devices are not unfamiliar to the students. Readiness even considers the capability of the students to get used to “…technological issues, collaborative education and asynchronous as well as synchronous self-paced training” as stated by Schreurs & Moreau (2008).

The learners, in the current study, belong to the “Internet generation Z” and when they are born, there is already the modern technology around them. Thus, they can explore and get used to the emerging technologies (Duffy 2008). The outcomes of this research also benefit the educators especially in comprehensively using the technology close to and owned by the students as means of learning. Zainal (1999) states that when educators are willing to make use of the latest technology in the teaching-learning process, it seems that they are not technophobic. In his study, Pierson (2001) emphasises that involvement of digital technology in the educational domain cannot be disconnected from effective teaching. From his research, Rodrigues (2006) observed that teachers only begin to use digital technology when they change their viewpoints regarding the expertise of the students, when they are certain about the technology, and develop policies which “…shared stimulus on guiding the learning process of the students”. If the educators are assertive and show interest in employing the digital technology in the teaching-learning process, it confirms that they have excellent knowhow of
the modern digital technology which would result in a more remarkable approach in the teaching-learning process. Educators are the significant elements of education since they can ensure that the strategies of education are implemented; the success of generating professionals mentioned in the national education policy depends on the pedagogical approach of the teachers which would provide really meaningful and engaging lessons. Lee (2006) emphasises that teachers need to consider certain factors in the maximisation of “digital technology-enhanced learner-centred atmosphere” in their teaching-learning techniques and it must be “…advanced with respect to quality, rather than convenience”.

Additionally, McAlister (2009) suggests that employment of digital technology and the combination of pedagogical knowledge of the teachers would result in “engaged and well-grounded students” who would ultimately be able to step forward beyond the classroom to discover the boundless world of information. Therefore, it is crucial for teachers to prepare their lesson planning wisely to make sure that the sessions are not only interesting but meaningful. The technologies employed by the educators’ act as the means by which the teachers can deliver the lessons effectively. Teachers need to ask themselves some introspective questions while making plans to give students meaningful learning experiences. Queries related to resources or materials required, time duration allotted for an activity, prerequisites, common examples, informal and formal assessment used to evaluate students from time to time, manner in which the instructions can be changed or given in a different way to allow for diversity of the students so as to make sure that all the students “…develop the ability to reach or surpass the expected session outcomes of the unit…”

Success and efficiency in the educational institute depends on the people responsible for change. If teachers refuse to change and include digital technologies in their sessions, there will be no progress. In this case, the teaching-learning process might become uninteresting and traditional. The session might become only the simple “chalk and talk” process. The absence of use of digital technology inside the class is because of educators’ unwillingness to expose their inadequacy in making effective use of the digital technology. As the data from this study shows, students are willing to utilise digital technology in learning the English language.

To sum up, the emergence of modern technologies in the educational domain should be comprehensively used for enhancing the teaching-learning process; it can serve as a means for infusing good values in employing the technologies prudently among the young children.

Overall, the results indicate that the students have shown a high level of readiness to use technology to learn English. It can be seen from the results that the students have proved their readiness by showing that they are already using the platforms and applications available in the internet to support their English learning development and at the same, realise the importance of the existence of technology in assisting them not only completing their exclusive
chores such as online shopping but also the relevance of this remedy nowadays in helping them in education as well. Most importantly, they also support the idea of peer-support groups and do not have to depend completely on their teachers to learn the English language which are foreign to them like how the traditional learning process works.

Hence, these findings demonstrate one important point - that computer and internet have become an important constituent of life as these technological advancements become an inseparable part of everyday activities for the students. In this case, the use of computers and internet resources are the main constituent of the technology which represents the essence of the implementation of the fourth industrial revolution, which determine the success of technology in enhancing students’ learning process. The findings are in agreement with the findings reached by (Rahamat et al., 2017). Rahamat found that the students are ready to use mobile technologies to learn English. Similarly, the students in this study are found literate and ready to utilise technology to support their learning process. Furthermore, the findings of this study are in line with Coopasami et al., (2017) where the researchers found that the students are lacking the knowledge in using technological equipment but they are psychologically ready to use technology to learn.

Conclusion

This study aimed to investigate the technological readiness among EFL students. The study used a fully quantitative research design using a survey questionnaire self-demonstrated to 200 EFL students in the studying year 2019-2020. Five international schools in Kuala Lumpur were selected. The data was analysed using SPSS 22.0. descriptive analysis using percentage, frequencies, mean score and standard deviation. Through this study it was found that the students. The study showed that students are technologically, economically and competently ready to utilise technology in learning. The study implies that teachers need to be keep up to date in regards to knowledge, skills and modern teaching styles in facing the demands of the fourth industrial revolution. As such, it is hoped that EFL teachers will be able to produce excellent students in the future as work demands are increasingly challenging. This study helps the teacher to create a new learning environment.
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