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CONFIRMATION LETTER

Dear Authors,

Amaal Fadhlini Mohamed & Nazatul Syima Mohd Nasir

Center for Language Studies and Generic Development, Universiti Malaysia Kelantan.

Warm Greetings!

It's a great pleasure to inform you that, after the peer review process, your article entitled, "**TEACHING ENGLISH LANGUAGE IN THE ERA OF IR 4.0**" has been accepted and confirmed to be published as one of the chapters in a book, "ISU-ISU SEMASA DALAM BIDANG SAINS SOSIAL" by Penerbit UMK. The book will tentatively be published at the end of this year.

Thank you for your submission.

Warm Regards,

Dr. Amaal Fadhlini Mohamed
Chief Editor
ISU-ISU SEMASA DALAM BIDANG SAINS SOSIAL
Universiti Malaysia Kelantan

BAB 11: TEACHING ENGLISH LANGUAGE IN THE ERA OF IR 4.0

Amaal Fadhlini Mohamed & Nazatul Syima Mohd Nasir

Center for Language Studies and Generic Development
Universiti Malaysia Kelantan.

Corresponding e-mail: fadhlini@umk.edu.my

INTRODUCTION

The term IR4.0 is still new to some societies in Malaysia. Despite its existence for the past few years, many are still inquiring the real meaning of this acrimonious term. Little did we know that the role of term itself has been occupied our modern life every day. It is, emerging rapidly to become a part and parcel in a human's life all over the world across all stages of age.

The famous IR 4.0 refers to the fourth industrial revolution after the previous three revolutions including IT (Information Technology). The revolution is, as envisaged, about the transformation from the era of information technology to a period of digital technology (Shahroom & Hussin, 2018). The physical world is transitioning into a digital world in every aspect. A new form of technology, including robotics, artificial intelligence, cloud computing, and many others are taking over from every aspect of human interaction.

IR 4.0 in Education

Now, we are moving towards fully engaging in IR 4.0 era which carries the idea of Internet of Things (IoT). According to Schwab in the World Economic Forum 2016 in Geneva (as cited in Radziwill, 2018), we have come to the IR stage that requires the mixture of knowledge development in many aspects including digital, physical, and biological spheres, leading to one huge aspect. This is a great call of transformation to everyone across the world. This is because every country is depending on another country and this means each and every country must compete to run as inspiring as the other in other to increase productivity in all aspects including business, production and especially education.

In education, IR 4.0 has similarly changed its nature in many traditions as much as in the industry. Students, nowadays, must comprehend how to associate and apply distinguished knowledge in various contexts and situations. It is clear now that any movement in IR 4.0 changes the way humans'

way of living, working world and interactions among each other.

According to former Education Minister Malaysia, Dr Maszlee Malik (in an article in *The Borneo Post* in 2019), students should be courageous to step up through modifications as well as to be exceedingly creative and innovative in sustaining their pace with the recent technological progression. He also once suggested that teachers or instructors should play their vital role as the means of transformation. Likewise, the management of school or institution.

The education system should reflect the reality of the shift that is currently running in the digital world. The following segments of the paper avails suggestions on how new skills and knowledge in the field of English language education are taking cognizance of IR 4.0 with regards to the Malaysian education environment.

New Skills and Knowledge in Education

The fourth Industrial Revolution demands specific skills at various levels of management. The education system, as currently is, is set up to impart different skills on students moving into varied fields. To meet the demands of IR 4.0, and intending to prepare the students for the future, there is a need to tweak the current education system to reflect a shift into the era of digital technology (Selamat et al., 2017). Malaysian higher education system has already accepted the reality of transformation and is incorporating digital technology into the curriculum. In support of the move, it is essential to define the various skills that are required of students with regards to IR 4.0. Skills required of students should be categorized into conceptual skills, social skills, and technical skills.

The categorization of skills necessary in the era of IR 4.0 should be followed by the determination of the various levels of application of such qualifications (Idris, 2019). Taking the example of management, there are top tier managers, middle-tier managers, and management at lower levels. Specific skills should afterward be established that can be imparted through digital transformation in the education systems, matching skill categories, and various levels of application.

Conceptual skills, as inherent in individuals, facilitate their comprehension of complex scenarios and subsequent creation of practical solutions for such problems. In management, for example, a leader with exemplary conceptual skills envisions the tides of an organization based on their present predicaments and helps them prepare for a future he/she visualizes. This is a skill that has been required during the information technology era, and will still be necessary for the age of digital technology (Mustapha, 2018). Defining the essential skill-set for the Malaysian higher education system in line with IR 4.0 subsequently leads to the revelation on how various aspects of digital technology, such as artificial

intelligence, can be utilized to enhance the capabilities of business and market leaders to predict the future and prepare for it.

In as much as the world is moving towards a digital era, human skills remain key to the success of any sector in Malaysia. Social interaction occurs more through digital platforms as opposed to one on one interactions, as was the case before (Popkova, Ragulina & Bogoviz, 2019). People meet today via video conference and interact through emails and other forms of digital communication. However, the nature of the human being has not changed at all. Giving an example; there is a need to impart social literacy as a critical skill in the era of IR 4.0. However, the transformation in communication with the digital demands that devices largely used in communication guide their users on how to engage on such platforms. It is essential to train the future leaders of tomorrow on how to integrate the same and utilize it for optimum performance (Caetano & Charamba, 2017). The same approach should be adopted for all other skill sets, including technical skills that demand the mastery of data literacy and the solution of technical problems.

It is the responsibility of the Malaysian higher education leaders and educators to ensure that graduates master the competency skills necessary for the transition into IR 4.0 era. Such skills include exceptional ICT literacy, effective communication skills, critical thinking, problems solving skills, emotional intelligence, and cognitive flexibility. Additionally, the IR 4.0 era requires graduates who master new skills over the shortest periods of time, as technical problems are common with the switch to the digital technology era.

To conclude on the discussion on how to equip new skills and knowledge in education with regards to IR 4.0 in Malaysia higher education, it is vital to make the students the core of the learning process. Aspects of IR 4.0, such as artificial intelligence and robotics, can be developed in interactive sessions, leading to the effective integration of the necessary skills required of students in this IR 4.0 era.

Various Blended Learning Platforms

In the era of IR 4.0, the concept of blended learning is increasingly becoming popular with various education systems around the world, including the Malaysian education system. As an approach to education, blended learning integrates the traditional classroom with online training, with materials shared online and actual interaction facilitated through digital platforms (Muawiyah, Yamtinah & Indriyanti, 2018). Through blended learning, students can engage from all over the world in interactive classroom sessions without all being physically present at one location.

There are several challenges evidenced by blended learning. Some of these include access problems,

curriculum development, logistical issues, flexibility, and limitations when it comes to resources (Afrianto, 2018). Such challenges are created due to the difficulty of integrating the traditional classroom approach to education and digital engagement in learning. However, the steady transition into the era of IR 4.0 presents further opportunities that can be easily used to overcome such challenges.

Firstly, there are a variety of Web 2.0 tools that can be utilized by both educators and students to overcome the challenges witnessed with blended learning. Skype, for example, enhances the ease with which people can video conference from various geographical locations around the world. All that one needs is a stable internet connection. The challenges of connectivity can be overcome through such a tool (Ciolacu et al., 2018). Voice Thread is another tool that helps connect students and facilitate the sharing of resources among them. The application will hold various media, including documents and images, and also allow for access by students and educators. Through Voice Thread, text and audio comments can be shared in interactive sessions.

Continuous innovation with regards to Web 2.0 tools, has enhanced blended learning. The creativity of students on the internet is immensely improving through these technological innovations. Currently, one of the best Web 2.0 tool that creates classroom experience is the Google Classroom. The online platform is available for learners and educators for free. It can be used interactively to create assignments, distribute materials as well as grade contributions by learners. Such interactive learning experiences serve to boost the creativity of learners (Raman & Rathakrishnan, 2019) and enhances the efficiency of delivery for educators.

Augmented reality is another means through which the challenges experienced in blended learning can be effectively overcome. As previously defined, blended learning attempts to fuse physical classroom interaction with learning through digital platforms. Augmented reality helps in creating very interactive experiences, mirroring real-world circumstances, perceptual information generated through computers are used to relive the recreate the real world (Sari, 2019). Such a tool ensures that even though learners engage with educators through digital platforms, they do not lose touch with their actual environment. Furthermore, they can easily take their physical environment into a whole new digital space through various sensory modalities. The use of augmented reality can effectively usher learners and educators into the world of blended learning, as adequately reflects what blended learning is all about; the fusion between the actual physical learning environment and the digital learning space.

Mobile learning is becoming a popular concept in education. Learners and educators have been able to engage across multiple contexts as aided by mobile devices. Mobile devices are primarily used for social interactions among people in different locations. They have proved very significant when it comes to learning in the digital era, as educational content interaction is facilitated through these mobile

devices (Jaleel & Ling, 2020). Long-distance learning has been facilitated by the advent of mobile learning. Mobile learning helps the students and teachers overcome various challenges, such as connectivity, as it is always at their convenience.

Blended learning requires intensive incorporation of teaching and learning technology. Malaysian higher education system needs significant boosts in terms of financial resources so as to institutionalize blended learning. Such a move would promote interactive learning sessions and collaborations between instructors and learners. Learning experiences and resources will also be shared between Malaysian universities and top institutions of higher learning around the world.

Creative teaching examples in virtual and physical classroom

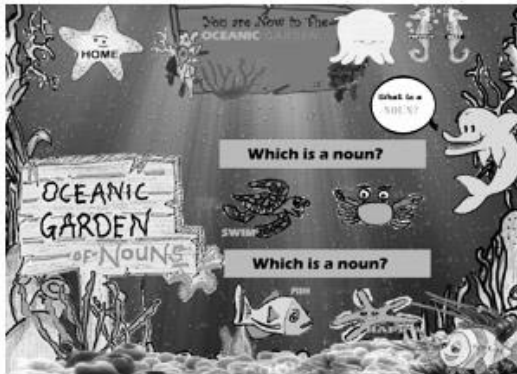
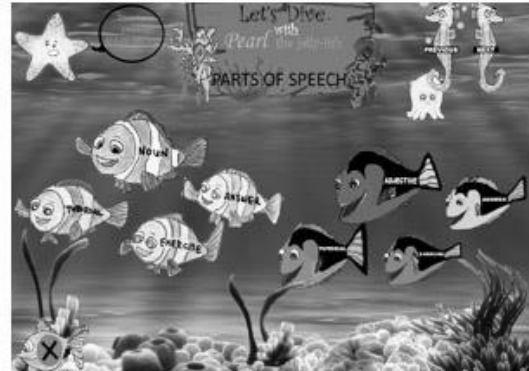
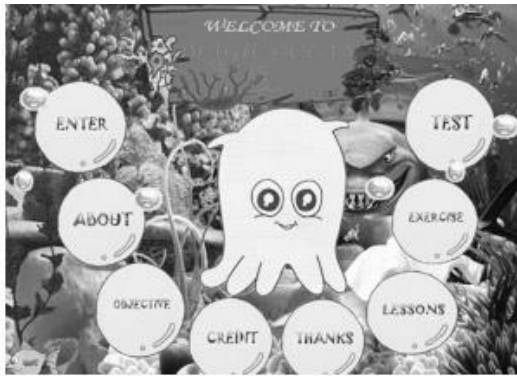
In embracing the new landscape of education in Malaysia Higher Education, this part of essay discusses some insights on how language instructors can equip the new skills and knowledge in the era of IR 4.0. There are two suggestions based on strategies in creative teaching and learning will be proposed to enhance and empower students' learning, especially in the area of English as a second language.

Language instructors should be creative in developing effective courses and programme which will lead to vulnerable learning outcomes. In fact, to date, we have at least eleven learning outcome domains based on COPPA MQF2.0 document which are 1. Knowledge and Understanding, 2. Cognitive Skills, 3. Practical Work Skills, 4. Interpersonal Skills, 5. Communication Skills, 6. Digital Skills, 7. Numeracy Skills, 8. Leadership Autonomy and Responsibility 9. Personal Skills, 10. Entrepreneurial Skills, and 11. Ethics and Professionalism.

In English language teaching at tertiary level education, it is adequate to apply at least two domains of 'Knowledge and Understanding' and 'Communication Skills' which both respectively cover cognitive and affective dominant learning outcomes. The instructor must be creative to make any course interesting and set the student-centered learning approach, by using these two learning outcomes. Indeed, student-centered learning approach is always among the finest learning environments in which to retain knowledge in memory. There are many creative strategies that may cover these two outcomes which will later be presented in only two examples respectively.

The first strategy we prefer to use in tailoring 'Knowledge and Understanding' outcome is by using interactive teaching materials online. Materials are carefully developed by the author (as an instructor) herself for a better flow of teaching lesson. In the era of IR 4.0, it is important to have materials online because these e-materials can be accessed by the students at anytime and anywhere without any feasible constraints. In the area of English language, for example, simple English grammar (tenses) is taught by

using e-interactive website. The raw materials are fully developed using Adobe Photoshop and Adobe Director for arranging the illustrations. It has been fully developed and tested as a preliminary lesson. The simulation of the website is as follows.



The next strategy in tailoring 'Communication Skills' outcome is by creating a student-centered activity whereby a small group of students (4-5 persons) must find information online and present it to the rest of the class, physically. The use of technology is also encouraged in this type of English language teaching strategy. For a start, the use of interactive dolls (electronic/robotic dolls with human-like expressions and respond to touch and body heat) in English Language classrooms is implemented. It is one of many additional activities, to guide second language students to speak. It is called Ninidoll Task.



It is a supplementary activity involving interactive robotic dolls as an exceptional way to engage with undergraduate students in a particular ESL lesson. However, this activity is still under development which requires further updates. The implementation of internet and more advanced technology, which may control the robotic dolls from a distance, is yet to be tested in the future. The examples presented can be introduced to other English language instructors of the same teaching field to grab the attention of virtual and physical learning engagement among undergraduate students. More information about Ninidoll Task will be presented in a different article.

CONCLUSION

The Era of 4.0 has made blended learning compulsory to all in the area of education. This type of learning interestingly combines actual classroom experience with digital knowledge. As we know, digital technology is fast evolving to enhance the learning engagement between educators and learners. Various tools exist today that can be used to support learning processes including what have been explained in the previous sections. The challenges faced by blended learning, such as accessibility and resource sharing, can be overcome through the use of Web 2.0 tools. These tools include Google Classroom, augmented reality, and mobile learning which make learning more virtually interactive and requires the next level of creativity.

In conclusion, the creative teaching strategies and techniques in the area of English as a second language are useful to enhance and empower students' learning in this modernised world of IR 4.0. The strategies will enlighten the mission towards creating student-centred learning environment which is definitely the best technique to preserve knowledge in memory. It is hoped this article has supported the new landscape of education in Malaysia Higher Education, and give some insights on how language instructors can creatively equip the new skills and knowledge in the era of IR 4.0.

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