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Teaching innovation with ICT

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INTRODUCTION

The term 'teaching' is very common anywhere in the world. It becomes a common agenda among educators and stakeholders around the globe. Teachers are important assets in a country, as their main job is to educate the future generations who will determine the future economy. 'Innovation' is to look beyond what we have been producing and develop a novel idea that assists other people to complete their daily task in a new way (Serdyukov, 2017). According to Evans (1970), innovation comprises two main components. The first component is the idea which is novel, and the second component is there is a change which results from the adoption of the idea.

Innovation is important in education because it encourages teachers to be more creative in solving problems or weaknesses in teaching to make learning more interesting and engaging. In order to do that, educators/teachers should think of more efficient delivery of lessons such as new learning strategies or new mode of assessments. Besides that, the educational system could be more versatile via innovation projects that have been proposed by teachers. Furthermore, innovation can produce a new talent among teachers to be the innovator or inventor. At the same time, innovation also serves as a platform to generate new products that will benefit teachers and students. Hence, innovation should be emphasized in education. ICT is an abbreviation for Information and Communication Technology which refers to a school subject, in which students learn to use computers and other electronic equipment to store and send information. Technology is an important agent that influences the effectiveness of educational systems in the world. Nowadays, there is no proper educational system without using technology. The impact of technology in education can be categorized into two terms: technology tools and technology-based learning system. The first term refers to any tools that support learning such as laptop, iPad and smart phones. While the second term relates to educational system using technology such as Learning Management System (LMS), educational software and web-based resources.

Technology has been proven as a pertinent factor that encourages educators to create innovation in education. It plays the role as a driving force and as an instrument for innovation. Technology supports the existing different modes of teaching such as blended learning, mobile learning, ubiquitous learning, game-based learning and so forth. With the technology available to users, this allows them to use certain tools in application Web 2.0 and integrate the tools in their teaching. For instance, teachers can select any tools for capturing their digital presentations about their lessons, which can be produced as screencast videos. Students can watch this video before coming to class and when they come to class they have to complete a task given by teachers. This video supports flipped classroom model that is widely used in blended learning. By using this mode of teaching, students should be able to construct a new concept on their own. Moreover, with the existing gadgets, 'Apps' is considered as a useful resource for mobile and ubiquitous learning modes of teaching, that focuses on real time communication. Another evidence that shows technology supports learning is 'gamification'. Free online games can be easily download by teachers. One popular example is Kahoot! Social media is also a vital element nowadays that is widely used by students, especially for collaboration purposes. For example, by using 'page' feature in Facebook, teachers can encourage their students to collaborate with other students. Besides that, teachers can also use 'free pedagogical tools' such as 'Google Forms' and 'Google Doc' which support teachers in preparing teaching materials and also managing students' performances.

The fourth industrial revolution (4IR) is the current issue in our world. Our roles as educators is to align Education 4.0 with 4IR where man and machine align to enable new possibilities. Therefore, educators should be aware of fast changing technology and information overload. 4IR is relevant and important as it leads to an innovation economy. Manufacturers can generate new businesses by sharing equipment or selling capacity they do not need on marketplaces. Thus, the industries must create continuous learning workspace that support life long learning concept. Meanwhile, the educational system

should be able to produce students who are inventors/creators, and the role of teachers change to be as facilitators. With this scenario, educators need to foster innovation and creativity in order to shape the future.

Hence, Education 4.0 needs to be aligned with industry 4.0. Educators must prepare students for the next industrial revolution which will happen in their future. Thus, educators must re-visit the educational programme, not only to create awareness about the needs to change but also to establish competencies and courses that are tailored to 4IR. Special courses should be embedded in the educational curricular such as experiential learning, project-based learning, life long learning, field experience and skills in handling data. On the other hand, educators should also be aware of negative effects of using the internet. Students should be warned about excessive online gaming that would cause weak limbs and obesity problems. They also must be warned about the use of abusive social media such as transmitting viral videos, the use of excessive smartphone that could increase depression and anxiety as well as the issues of plagiarism and fake diploma. Besides that, teachers must change their way of thinking that students need to be trained and not taught. They are mentors to the students. Meanwhile, the community also should support 4IR by shared learning and aspiration.

Innovation is a vital element in teaching, in order to update the existing pedagogy with new learning strategies and approaches. Teachers have the talent to produce new ideas to enhance learning and to transform students to be future innovators. ICT is a dynamic agent that assists teachers in doing the innovation. However, students should be informed the 'dos' and 'don'ts' in using these innovative technologies. The policy makers, teachers and community must work together to determine the proper ways to implement Education 4.0 and 4IR.

REFERENCES

1. Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it? *Journal of Research in Innovative Teaching & Learning*, 10(1), 4-33.