

Framing *New Model Teaching Practice* in IR4.0 for In-Service English Teachers Engaging in Teacher Profession Education Program

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ABSTRACT

The Industrial Revolution 4.0 is here today and it is merging with human's physical lives. The development of technologies has affected what people do. Teachers, for instance, have integrated sophisticated teaching technology applications in their classroom not only to improve students' learning outcomes, but also to survive in this technological era because it has been documented in the literature that being familiar with digital tools and processes, mastering them and constantly updating them are now components of the teaching profession. The writer did a closer look at how technology has shaped the conduct of a teacher profession program, especially now the world has been fighting the pandemic of Covid-19. In the condition where social distancing has been required during this pandemic, all the teaching and learning activities of the profession program are instructed to be conducted through full on-line. In relation to this, this article shares the integration of technology in the program from the point of view of the participants.

Keywords: *New model teaching practice, Industrial revolution 4.0, Teaching technology application, the pandemi of Covid-19.*

1. INTRODUCTION

The 4th Industrial Revolution is here today. It was triggered by the development of Information and Communications Technologies (ICT). Referring to Schwab, the founder and executive chairman of the Geneva-based World Economic Forum and the author of "The Fourth Industrial Revolution", Schulze [1] simply put the Fourth Industrial Revolution as how technologies like artificial intelligence, autonomous vehicles and the internet of things are merging with humans' physical lives. It gives impact to not only what people do, but also who they are, as Schwab [2] describes as follows,

It will affect our identity and all the issues associated with it: our sense of privacy, our notions of ownership, our consumption patterns, the time we devote to work and leisure, and how we develop our careers, cultivate our skills, meet people, and nurture relationships. It is already changing our health and leading to a "quantified" self, and sooner than we think it may lead to human augmentation. The list is endless because it is bound only by our imagination".

According to Schwab, one of the issues associated with the identity that is affected by IR4.0 is how people develop their careers [2]. Referring to what the other scholars have stated about IR4.0, Hirschi points out that the change in the nature of work, business, and society in the coming decades might lead to the elimination of thousands of jobs and the disappearance or fundamental change of many current occupations [3]. However, at the same time, new occupations, new industries, and fundamentally new ways of work will likely emerge [3]. Therefore, it is worth saying that the presence of IR4.0 can shape the future nature of career choices, career development, and career counseling. In the teaching field, for example, the digital competences are the unavoidable landmarks of the education of today and of the future, therefore, as with other professions in other sectors, being familiar with digital tools and processes, mastering them and constantly updating them are now components of the teaching profession [4].

The world now is facing Covid-19 Pandemic, known as the coronavirus pandemic. It has changed

almost every aspect of people's lives, including in teaching and learning activities. The implementation of WFH or Work From Home as an effort to minimize the spread of the Covid-19 has urged Indonesian government to search for an alternative so that teaching and learning activities can still be carried out and the technology is here to help. Free on-line teaching platforms are available for teachers to utilize. They can serve as the means of communication for teachers and students in the process of teaching and learning activities during this coronavirus pandemic.

Integrating technologies into the learning and teaching process has become the concern of Indonesian government and teachers play a very important role in the classroom technology integration. According to Covell [5], "every tool has a place, and that it is the teacher's professional responsibility to find that place". In other words, it is not only about knowing the technologies that Indonesian teachers should know, but also implementing it wisely and appropriately. As Gibson [5] emphasizes, the challenge for teachers is to use technology appropriately so that students learn with it, not just from it.

In relation to technology integration in the classroom, Indonesian government has established a professional development program through Pendidikan Profesi Guru (PPG) Program or Teacher Profession Education Program. The program is set to help Indonesian teachers obtain the teacher certificate which is one of the requirements that the Indonesian teachers have to have as stated in the Indonesia Government Regulation No. 74/2008. Universitas Sriwijaya is one of the tertiary institutions which has been approved by the Indonesian Ministry of Education and Culture to conduct the Teacher Profession Education Program. Based on the target group, the Teacher Profession Education Program is designed for pre-service and in-service teachers and at the moment Sriwijaya University is conducting the program for both target groups. The curriculum of the Teacher Profession Education Program conducted this year has been designed in order to meet the following description of a professional teacher.

Guru profesional yang bertakwa kepada Tuhan Yang Maha Esa dan berakhlak mulia yang menguasai materi ajar, berkarakter dan berkepribadian Indonesia, menginspirasi dan menjadi teladan, memiliki penampilan memesonakan, berwibawa, tegas, ikhlas, serta disiplin yang mampu mendidik, membelajarkan, membimbing, mengarahkan, melatih, menilai, dan mengevaluasi peserta didik sesuai dengan tuntutan perkembangan teknologi informasi dan komunikasi terkini dan masa depan".

It is clearly stated in the description that an Indonesian professional teacher is expected to be able to

keep up with the development of the latest and the upcoming ICT. This is very challenging since there are many Indonesian teachers who have inadequate knowledge of ICT. For example, a survey study conducted Mailizar and Fan [6] who investigated Indonesian secondary teachers' knowledge in the use of ICT in secondary mathematics classrooms found that to a large extent, Indonesian secondary mathematics teachers have a largely inadequate knowledge of ICT and knowledge of ICT use in teaching. Therefore, improving the teachers' knowledge of both aspects, is crucial and providing more training courses for teachers' knowledge development are needed. Lack of ICT competency, ICT equipments and support from the institutions were also reported as the challenges in ICT implementation by nineteen English teachers representing twenty four public senior high schools in Palembang, South Sumatera [7]. Similarly, Muslem, Yusuf and Juliana [8] reported that the English teachers from the sixteen public senior high schools in Banda Aceh who participated in their study found ICT very helpful in teaching. However, the limited time and tools, coupled with a poor Internet connection as well as a lack of knowledge and experience of ICT training were obstacles for the teachers using ICT. At the tertiary level, the study conducted by Septiyani, Inderawati and Vianty [9] found that the lecturers' use of technology in the classroom became the source of technology knowledge for the students, in addition to what the students have learned by themselves through the internet.

The previous related studies [6-9] cited and reported in this present study are only few examples of the studies that have been conducted in terms of technology use in the classroom. An important point that can be inferred from these three studies is the need to provide Indonesian teachers with the opportunity to improve their ICT skills. As described in paragraph five, Pendidikan Profesi Guru (PPG) Program or Teacher Profession Education Program is to produce a surge of teachers who are not only master the four teachers' competency, but also technology.

In the condition where social distancing has been required during this Covid-19 pandemic, all the teaching and learning activities of the Teacher Professional Program are instructed to be conducted through full on-line. For this purpose, a Learning Management System has been set up by Indonesian Ministry of Education and Culture to accommodate the on-line teaching and learning activities for the pre-service and in-services teachers participated in the Teacher Profession Education Program. This report presents the in-service teachers' point of view concerning the integration of technology, especially within the context of the teaching

practice activities which is now referred to new model teaching practice.

The outbreak of Covid-19 has urged Indonesian government to modify the conduct of all students' activities within the Teacher Profession Education Program. The teaching practicum which used to be conducted by sending the pre-service and in-service teachers who participated in the Teacher Profession Education Program to the schools where they would remain for a certain period of time to practice their teaching as well as non-teaching activities, is now conducted on-line with the help of the LMS (Learning Management System). This explains why the teaching practicum is referred to new model. Through LMS, the pre-service/in-service teachers attending this year Teacher Profession Education Program manage their learning activities.

As described in paragraph six, the integration of technology in the classroom is not without a challenge. Similarly, the full on-line conduct of teaching and learning activities for the pre-service and in-service teachers attending the Teacher Profession Education Program this year inevitably becomes a challenge for them. Many of the participants live in places where internet connection is a major issue. Not getting used to do an on-line learning also become the challenge for the participants. Therefore, gaining the information from the participants is worth doing since the results can provide significant contribution to the existing literature about technology integration from the perspectives of teachers engaging in a teacher professional development program. Particularly, this report presents the in-service teachers' point of view concerning the integration of technology, especially within the context of the teaching practice activities.

2. METHOD

2.1. Setting and Participants

The participants of this study were the in-service English teachers attending the Teacher Profession Education Program within Faculty of Teacher Training and Education, Sriwijaya University. There are two classes that are taking place at the moment but since the writer has an access to only one class (B), this present study has got involved the in-service English teachers of B class which consists of 28 students. However, only 20 participants returned the questionnaire.

2.2. Data Collection and Analysis

The Written Structured Interview (WSI) was employed to collect the data. This form of data collection was selected since it is very relevant with the situation at the moment in which the outbreak of Covid-

19 has urged people to practice a social distancing. Therefore, in line with the Covid-19 protocol, instead of having a face-to-face interview, the participants were requested to respond in writing a set of questions which were sent through Google drive. The participants' responses were analyzed through content analysis technique. The information gathered was divided into meaningful parts then those parts were classified and coded. The coded data then were listed; the codes referring to similar meanings were collected into the same categories. Next, by referring the categories to the relevant literature, themes were constructed.

3. RESULT AND DISCUSSION

As described in the background, the focus of this paper was to present the participants' point of view in relation to the technology integration which frames the conduct of teaching practice as one of the activities that the participants have to do in the Teacher Profession Program. Two themes emerged from the results of the data analysis: positive attitude toward technology integration and poor internet connection.

3.1. Positive Attitude toward Technology Integration

All the in-service English teachers participated in this study viewed positively the technology integration in their learning activities as the students of the Teaching Profession Program. For example, one of the in-service teachers believed that the use of technology in their classroom gave benefits for themselves as the students of the Teaching Profession Program as well as a teacher.

The use of technology in teaching learning is very helpful both teachers and students, students and teachers are more familiar with computers and the internet in learning and presentation of learning outcomes

The use of technology that is framed into LMS or Learning Management System in PPG learning activities makes it easier for us as the students that [LMS] can be accessed everywhere as long as it is supported by a good internet connection.

Technology integration through Learning Management System implemented in PPG program gives benefits to us [as the students] because [LMS] is easily accessed. The use of technology has given us the chance to study and discuss [the lesson] with our friends and lecturers with ease.

All the in-service teachers participated in this study supported the use of technology in the teaching and learning activities within the Teaching Profession Program they are attending. They saw the integration of technology as a positive influence that brings benefits for their study. Having a positive attitude toward

technology use in the classroom is important since as Rana [10] highlights that the success of any initiatives to implement technology in an educational program depends strongly upon the support and attitudes of teacher educators involved. The finding of this present study is in accordance with the report of previous related studies described in the background [6-9] Furthermore, due to the Covid-19 outbreak in which the teaching and learning activities in Indonesia have been conducted from home, the technology integration implemented in the Teaching Profession Program is also viewed positively by the participants.

The use of LMS has complemented online learning for PPG activities, which during this pandemic have required us to learn from home.

Technology has proven itself as the great solution for supporting the teaching and learning activities during this Covid-19 pandemic. However, the use of technology in the Teaching Profession Program is not without a challenge and the following section provides the description.

3.2. Poor Internet Connection

All the in-service teachers participated in this study accepted the use of technology in the teaching and learning process as an effort that can facilitate their learning, especially during this Covid-19. However, the participants also highlighted the fact that the internet connection played a very important role in their learning activities.

The challenge in using it is the power of the internet connection to access LMS pages.

The difficulty in using technology is bad connection network. It sometimes happens to us and also the lecturers.

The challenge is when the Learning Management System is down and it affects our learning activities. When it happens, our friends who are from the remote places cannot join the online class. Our friends who live in the remote areas also have limited access to a good internet connection that sometimes make them difficult to join the class.

Poor internet connection has become the challenges for the in-service English teachers in doing and completing their learning activities on-line. The poor internet connection has even prevented them to join the on-line learning. For these students, it means they have to think about an alternative that can help them keep updated with the learning. The study conducted by Pam, Tan and Lee [11] who did a survey study involving 20 primary school teachers from 4 different provinces in Vietnam in order to investigate the issues and challenges the teachers faced in the process of using ICT in their English teaching also reported poor internet connection as the issue. The issue with the internet connection has been highlighted by Johnson, Jacovina,

Russel and Soto [12] as an external factor which are the barriers to the successful integration of technology into the classroom. Furthermore, Johnson et al. [12] believe, "If a teacher's school does not possess adequate computers and fast internet connection, the implementation of educational technology is not feasible".

4. CONCLUSION

The discussion of the themes is presented separately although they are interwoven and linked. For example, the first theme highlights participants' belief that technology integration within the conduct of their teaching practice is aimed at bringing betterment for themselves as a professional teacher. However, on the other hand, the second theme suggests that the integration of technology through the activity such as on-line learning may experience poor internet connection. This can be a challenge for the in-service teachers of English in meeting the requirement for completing their learning activities. An alternative solution for overcoming this issue is worth doing so that the participants of the Teacher Profession Program can gain much benefit from the new model of learning activity.

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