

# Hybrid Learning Model in Improving Elementary School Teacher Professionalism for Teacher Professional Education Student

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**Abstract.** This study aims to determine the effectiveness of the hybrid learning model to improve elementary school teacher professionalism for Teacher Professional Education (TPE) student in the Faculty of Education in the Universitas Muhammadiyah Prof. Dr. Hamka. The government pay special attention to improving teacher professionalism through hybrid learning models in TPE. The impac of the industrial revolution 4.0 required teacher's literacy in technology. There are still many teachers who have not masterd the technology. The method used in this research is action research. This study show that the application of the hybrid learning models in TPE is effective to improve teacher professionalism. It can be seen from the grade of TPE student doing online activities 78% active, the remaning 22% inactive. The percentage of TPE student passing the final test is 78%. The conclusion is that the hybrid learning models has a positive impact on teacher professionalism because they can learn everywhere and every time without sistrubing their working house. However, in order that the effectiveness of a hybrid learning model will be increasing, the TPE students should be more trained focusing to improve their Information Communication and Technology based competences through the online learning system.Introduction.

## 1. Introduction

One important factor in the success of education is the quality of the teacher. A teacher has full responsibility in creating the next generation of the nation with character. The weakness of human resources resulting from Indonesia's education resulted in Indonesia's slow rise from adversity. At present, the government is paying attention to the quality of education which is highlighted in various aspects. A very important aspect is to improve the quality and quality of teachers. The government program in improving teacher quality and quality is to provide intensive education and training for teachers. Law No. 14 of 2005 concerning Teachers and Lecturers states that teachers must have academic qualifications, competencies, educator certificates, be physically and mentally healthy, and be able to realize the goals of national education. When referring to the law, teachers must have an educator certificate that teachers can obtain through teacher professional education.

In the era of industrial revolution 4.0, many changes occur related to technological advances and this has an impact on educational institutions, therefore teachers must be technology literacy, one of them is a hybrid learning model. Technology has contributed a lot to the world of education. In fact, it can be said that education without technology is like a car without an engine, therefore the importance of technology literacy teachers (Nurohman, 2014). Through the teacher, professional education program in-service training teachers attend training and learning with hybrid learning models. Teachers before conducting the online process are given socialization and training in using hybrid learning applications.

**Commented [HP1]:** Karena IOP MSE sudah dengan tegas menyatakan bahwa mereka tidak menerbitkan paper dalam bidang education, maka paper ini harus direvisi total dengan fokus pada aspek rekayasa teknologi dalam pengembangan digital comic, bukan implementasinya di bidang pendidikan. Dengan demikian, maka:

Judul agar diubah dengan tidak mencantumkan aspek pendidikan. Misalnya: Development of Digital Comics for Science Learning

Introduction agar membahas rekam jejak penelitian sebelumnya mengenai pembelajaran digital, termasuk komik

Metode agar membahas bagaimana digital comic dikembangkan (software apa yang digunakan, bahasa pemrograman apa yang dipilih, dll).

Hasil, pembahasan, serta kesimpulan agar tidak lagi mengaitkan dengan aspek pendidikan.

The challenge that teachers will face is to educate generation Z, where this generation was born in the 2000s when technological developments became more sophisticated. Then it takes preparation for teachers who are skilled in technology. The generation Z character likes something instant that is very suitable when using learning with e-Learning because it is flexible, effective and efficient (Purnomo, Ratnawati, & Aristin, 2016). Technological advancements require teachers to adapt by developing digital learning models that are appropriate to the subjects to be taught by facilitating students to explore the potential of students so they can compete in the era of the industrial revolution 4.0.

Digital technology offers a variety of options for developing learning. Teachers and students use shared networks and technology in the learning process (Sørensen & Levinsen, 2015). It is also important to explore and develop digital solutions that improve the analysis of evaluation results and support the decision making of teachers and students on how to turn the resulting knowledge into efficient practices. With technological advances, many ways can be applied to improving teacher quality. One of them is through hybrid learning. Where the teacher can do what is mediated by the computer. In reality, there are still teachers who have not been able to adapt to technological progress. But actually not all of them are suitable to use hybrid learning, for example, based on research conducted by Hendrayati that in quantitative learning it is not suitable to use hybrid learning method, the physical presence of teachers and face-to-face is very necessary (Hendrayati Heny, 2013). With the hybrid learning model still requires face to face activities directly.

Teacher Training and Education Faculty of Muhammadiyah University Prof. Dr. Hamka is a higher education institution that produces superior teachers, one of which is through the professional teacher education program in-service training by using a hybrid learning model. To facilitate teachers in implementing the hybrid learning model of tertiary institutions conducting digital learning processes through teacher professional education (TPE) activities, which can be done anytime and anywhere. The purpose of this study was to determine the effectiveness of the use of hybrid learning models in improving teacher professionalism through TPE conducted at the Teaching and Education Faculty of Muhammadiyah University Prof. DR. HAMKA Elementary School Teacher Education Study Program.

## Method

This research uses an action research approach. The action research of a researcher describes, interprets, and explains the social situation at the same time by making changes or interventions to increase or participate (Sugiono, 2013). This research was conducted on 2019 in-service training professional teacher education participants in the 5th generation of elementary school teacher education study programs with 74 participants participating in the learning process through hybrid learning. Action research procedures consist of problem identification, data collection, analysis and feedback, action planning, and follow-up of the learning process carried out through hybrid learning for teacher professional education participants (Sugiono, 2015). All action research activities have two main objectives, namely: improving and involving. The first objective is to improve practice, professionalism, namely to increase understanding and practice by practitioners, and to improve the situation in which practice is implemented (Kartowagiran, 2005). This research is an educational process that involves personal competence with professional competence in teaching activities because these two things are needed in research involving humans (Mulyasa & Rosyada, n.d.). Human being referred to here is between lecturers as instructors and TPE participants who carry out hybrid learning activities

Data collection techniques in the implementation of observations made by researchers as instructors in the online process of activities carried out for 3 months. Conduct interviews with professional teacher education participants who are conducting the learning process through random learning as a tool to collect data. Data analysis conducted in this study was data reduction, data collection, data presentation and conclusion drawing (Sugiono, 2013).

## 2. Result and Discussion

### 2.1. Hybrid Learning Model

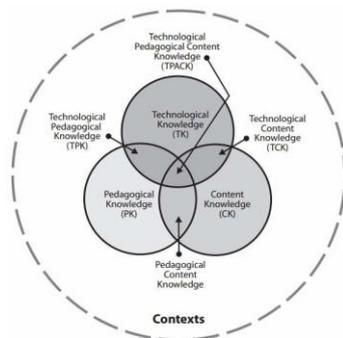
Hybrid learning which is often also referred to as blended learning in principle is a learning model that utilizes the power of face-to-face learning and online learning while covering weaknesses in the learning process by utilizing technology. Blended learning as a combination of face-to-face learning with computer-mediated learning (Bork & Graham, 2006). In this learning design, traditional face-to-face learning classes are combined with web-based online learning and / or computer-mediated learning or other intelligent devices. Meanwhile, according to Garrison & Vaughan blended learning is a good blend of online learning experiences and face to face (Garrison & Vaughan, 2008). The basic principle of this learning model is face-to-face oral communication and written communication through online that is optimally integrated so that it becomes one in a unique learning experience according to the context and purpose of education.

While Jay defines hybrid learning as a program that reduces the face-to-face time which is replaced by time spent outside of traditional classes (Jay Caulfield, 2011). Basically, the use of hybrid learning models is a new way in the process of teaching and learning in the educational environment (Sukarno & Program, 2015). Based on the results of previous studies that hybrid learning increases learning outcomes greater than conventional methods (Asyrofi & Junaedi, 2016). Hybrid learning can foster a stronger sense of community among professional teacher education students than conventional learning. Learning with hybrid learning is highly recommended compared to conventional learning in the industrial revolution 4.0 era because learning is more flexible.

Learning with the hybrid learning model has many advantages and benefits including the efficient time of the learning process in class, which can be done anywhere and anytime, increasing student participation, bringing students more active in their learning and increasing the likelihood of students exploring relevant learning resources. Digital literacy must be realized by balancing teacher competence because the challenges ahead will oversee the building of the golden generation in 2045, namely learning with blended learning that utilizes the internet (Masitoh, 2018). Blended learning-based learning is the right and best choice for increasing time effectiveness, cost efficiency, and greater attractiveness in interacting between people in diverse learning environments (Verawati, Desprayoga, 2019).

Based on the results of previous studies that blended learning is effective in improving students' critical thinking skills (Sujanem, Poedjiastuti, & Jatmiko, 2018). The skills of students who can think critically will increase the sensitivity of the next generation in solving problems to be faced. Also, hybrid learning can improve students' motivation and learning outcomes compared to conventional learning (Sjukur, 2013).

A teacher must develop his knowledge and skills in teaching students to follow Technology, pedagogical, and Content Knowledge (TPCAK) thinking in order to be able to teach students efficiently and efficiently. The TPACK framework can be seen in Figure 1.



**Figure**  
and Content

**1. Technological, Pedagogical, Knowledge/TPACK Framework**  
(sumber:<http://tpack.org>)

TPACK describes the interaction of the three domains of knowledge that must be possessed by an educator. Technology signifies that an educator develops knowledge and skills in mastering technology to utilize online learning resources. Pedagogical conducted by educators can vary depending on the state of the learner and the class. Content Knowledge depends on the material that the educator wishes to convey according to the learning outcomes (Husamah, 2014). By applying the TPACK conceptual framework, it is expected that hybrid learning models can be implemented effectively and efficiently between educators and students.

### 3.2 Teacher Professional Education in-service training

Teachers are a benchmark of success in the world of education, therefore teachers must not stop developing their competencies, even if they have to be actual teachers. Teacher professional education (TPE) provides a learning experience for teachers in-service training to develop competencies both in the pedagogical, personality, social and professional fields. Teachers as educators must read the phenomena that occur at this time where the students that teachers will face are those who were born in an era of technological sophistication, teachers must be able to analyze to continue professional development (CPD).

One creativity that can be done by teachers with digital-based learning. Before teachers get professionalism, the teacher must follow the teacher's professional education program in-service training through hybrid learning pathways. Teachers are expected to have the skills to operate digital and internet-based digital media. The hope is to provide positive results in improving the quality and quality of learning. The development of teacher professionalism can be done in various ways for example by increasing knowledge, skills and attitudes in teaching.

Teachers who are said to be professionals are teachers who can carry out their duties effectively, by providing services and dedication sincerely and sincerely for students who have become their responsibility by utilizing technology (Setyosari Punaji, 2009). Online programs offer a technology-based learning environment that can expand opportunities for high-quality teaching and learning by utilizing the internet network. In-service teacher professional education programs offer convenient solutions within the limitations of time and space for teachers who must continue to carry out their duties in educating their students.

### 2.3. Result and Discussion

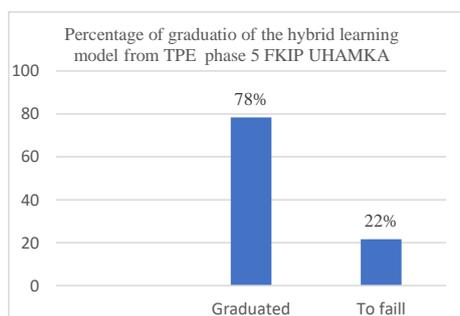
The era of the industrial revolution 4.0 which is characterized by cyber-physical systems has begun to touch the world of education in the form of learning processes, learning media, and other digital alternatives. This requires the skills of teachers in teaching and providing education to generation Z.

One way to improve teacher professionalism through teacher professional education (TPE) is done at FKIP UHAMKA with a hybrid learning model. Before learning through hybrid learning, TPE participants are given socialization and training by the local committee of the organizing tertiary institution so that they can apply the website to be used in online learning. The number of TPE participants in-service training phase 5 in 2019 who took part in hybrid learning was 74 teachers from various regions throughout Indonesia. From the number of participants who participated in the online learning process who were declared graduated at the end of learning as many as 58 participants and did not pass as many as 16 participants while the graduation summary can be seen in the following table

**Table 1. Participant Recapitulation**

Total Online Participants	Graduated	To fail
74	58	16
	78%	22%

Table 1 explains that participants who took part in online learning at TPE in-service training stage 5 were declared to have passed 78% and 22% did not pass. If drawn in the diagram it can be seen as follows picture 1.2 Presentation of TPE in-service training online phase 5 FKIP UHAMKA.



**Figure 2.** Presentation of hybrid learning from TPE

Based on the graduation data, it can be seen the number of participants who have passed the test will continue to follow the next stage, namely the workshop or face to face with the instructor. This graduation factor is considered effective and it is stated that learning with hybrid learning is a solution for developing learning models to improve teacher skills in applying technology. The teacher can utilize teaching materials, audio, video, and multimedia for the enrichment of the material to practice the drill and practice that exists in the online application and develop it in discussion forums that are given feedback by online instructors. As the most important tool in learning hybrid learning using web brightspace. The appearance of the brightspace web can be seen in the image below figure 3.

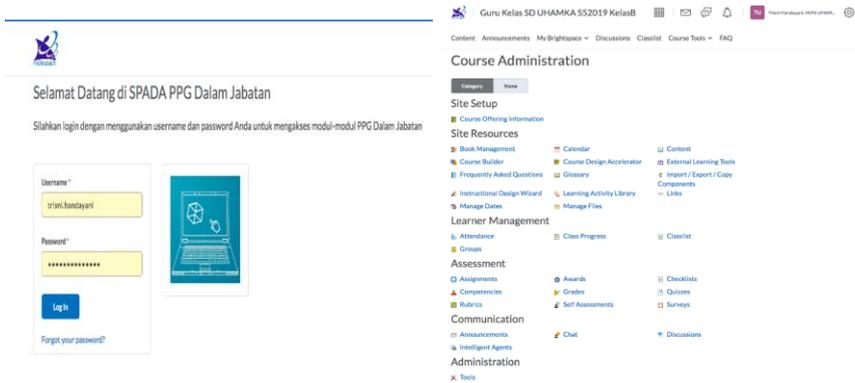


Figure 3. Display instructor login

When the online instructor in hybrid learning has entered the brightspace web, the instructor can create a discussion forum by creating topics by the material to be discussed and provide feedback for TPE participants to then value the participant's activity in answering discussion forums provided by the instructor, it can be seen in figure 4.

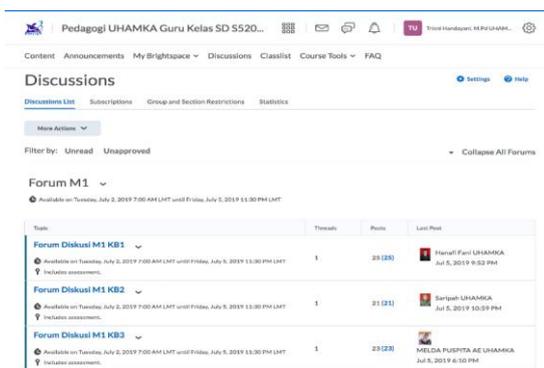


Figure 4. Forum Discussions

In addition to the discussion forum, the instructor also evaluates the evaluation that has been given to TPE participants and provides feedback if there is anything that needs to be improved by the participants so that learning becomes effective and participants can ask the instructor at any time. While the work is done and must be sent by the participant is limited in real-time if the time limit has expired then the participant can no longer upload the evaluation answers. Likewise with the instructor, if the evaluation deadline has expired then the instructor cannot carry out an evaluation outside of the specified time. The evaluation format can be seen in Figure 5.

**Figure 5.** Grades Evaluations

As for the benefits that can be obtained with hybrid learning models, namely 1) increase learning knowledge and skills in the field of technology; 2) the efficiency of time that can be done anytime and anywhere; 3) more economical; 4) improve communication more intensively; 5) diverse learning environment experiences. While the constraints of the non-graduate TPE participants in-service training stage 5 are due to 1) the participants do not master the technology; 2) participants are late in sending the evaluation answers requested by the instructor; 3) participants are declared less or not active; 4) participants resign without prior confirmation; 5) limited internet signal. Participants who are declared to have passed can follow the next stage, which is a workshop conducted by the organizing tertiary institution. For participants who do not graduate, they can repeat the in-service teacher professional education program through the hybrid learning model in the next stage.

**Conclusion**

Based on the discussion of the result of the research it can be concluded that the effectiveness of the hybrid learning model can improve teacher professionalism through teacher professional education (TPE) programs. With hybrid learning, teachers can add knowledge and skills in the use of technology and utilize learning facilities through web and internet-based applications. This teacher professionalism will have an impact on readiness in dealing with students in the era of the industrial revolution 4.0, namely generation Z. If the teacher has mastered the technology, a golden generation will be created in the coming 2045.

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