# HYBRID MODEL-BASED LEARNING LEARNING IN WELCOME ERA INDUSTRIAL REVOLUTION 4.0

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#### Abstract

This study aims to provide solutions and information to the world of education regarding effective and interactive learning models to meet the industrial revolution period 4.0. The focus of this study is the existence of hybrid learning models based on learning. Learning a model that combines or unites online learning with face-to-face learning with students, Because in the industrial revolution period of 4.0 was marked by the advancement of information technology as the main media in his life. The method in this study is by using a descriptive qualitative approach with the data retrieval techniques through literature. The results of this study indicate that the Hybrid Learning-based learning models are used in classroom teaching Effectively in the world of education during the revolution 4.0 period, Because this method is a method that combines two ways namely teaching online and face-to-face, the which in the era of the industrial revolution 4.0 more promoting technology or the era of big data. So from that the teacher and lecturer need to innovate in facing the 4.0 industrial revolution period with an effective and interactive learning models such as Hybrid Learning.

keyword: Learning Models, Hybrid Learning, The era of the Industrial Revolution 4.0

### PRELIMINARY

Education in the state of Indonesia at this time has entered the era of industrial revolution 4.0, so a lot of the changes that will be encountered in all aspects, in terms of both teaching and practice. In the era of the Industrial Revolution 4.0 is a period where human life can not be separated from technology and information or future technological sophistication. Therefore, the Indonesian people must be prepared to meet and greet the arrival of the era of big data (advanced technology).

4.0 industrial revolution era or the era of big data has become a news good news and very good news for Indonesia as well as for education. The goodness with their big data era is due to the industrial revolution 4.0 will further enable people to live their lives because, with the sophistication of the technology, life would be easier. Conversely, the negative side of the existence of this period is marked by the change of human resources into the utilization of machinery and technology.

In this era of big data will shift human role by the sophistication of the technology, so that would make a significant length, which would change the way of working with each other. The existence of such an impact, demanding the next generation to prepare to survive in the era of the industrial revolution. As stated by David (2018) that there are some

challenges that make the world of education in Indonesia is difficult to adapt quickly to the industrial revolution 4.0. The first relates to the lack of teachers and lecturers in the technology curve. Second, the technology that every year has issued a new innovation, but in reality many are still lacking literacy education to the development of technology, many missed educational technology.

At this time the progress of education in science and technology (Science and Technology) brings a lot of changes, especially in human life, especially in improving the quality of education. Many factors influencing the development of education in the future. One is the development of technology and information. On that basis, the role of education to do the update with the times. The need for education and learning based on competences is an example of the result of the change is to improve quality of education and learning. As stated in Law No. 20 of 2003 on the national education system in Indonesia says that education serves to develop all its potential learners,

Adjustments between the world of education today with industrial revolution 4.0 can be done by adjusting the way, strategies, models and methods used. At the time of the learning process, teachers and lecturers need to consider and make effective models and methods in accordance with the characteristics of learners. The use of models and learning methods appropriate to the learners will affect the quality of the growing potential of learners, because the system is a good learning will demand development for educators, namely for educators improvements and changes all the time There are various models and teaching methods effectively used in the era of big data on the industrial revolution 4.0.

Several research studies have been done before by the researchers is about hybrid learning model-based learning, which the researchers earlier found that the hybrid-based model of learning can enhance the learning outcomes of students because this model further streamlines the online system of the conventional learning system. Therefore, many schools and colleges that have implemented or using a hybrid learning model-based learning.

This is also supported by the opinion of Graham where: "we can be fairly confident that the trend towards increased learning system will mix". However, educators must also consider overall the success of the implementation of the hybrid model of learning, because this model does not occur instantaneously and automatically. The main factors that determine the success of hybrid learning is with educators in considering the pedagogical and instructional design that is related to the use of technology for students, how educators can facilitate and be able to interact with students, as well as to motivate learning and manages the material to be delivered via the Internet (online) than face to face.

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David Rizaldi, et al (2018) have also been conducting research on teaching model of hybrid learning or blended learning in the face of DNA welcome the era of the Industrial Revolution 4.0, the results show that this model is effective in the era of big data, because the hybrid learning model is the combination of 2 ways, namely online and face to face. Muhammad Alfarizqi, et al (2018) have also been doing research in a national seminar on hybrid teaching model learning or blended learning can improve learners' critical thinking. In this study also showed that this model can effectively improve critical thinking potential learners (Ghiffar, Nurisma, Kurniasih, and Bhakti, 2018; Rizaldy, Kristi Dese Adi Emmanuel Papa John's, and Huda, 2018).

Through the learning model based hybrid learning of teachers and lecturers in Indonesia education will be able to follow the period of the industrial revolution 4.0, as did researchers earlier, in this study the researchers hope that learning model of hybrid learning is able to make the learners be able to improve the entire potential owned by learners as a provision in a future life, as well as the achievement of educational goals.

Hence the importance of this research, as well as information solutions to educators who are less aware of information in the face of the industrial revolution 4.0, with their research is expected of teachers and lecturers can innovate in learning. This study is a literature review of the research approach, in which the writing method in this research is literature. Data were obtained from various literature or literature which is based on results of a study of the data obtained. Resulting in expected research purposes, which can be beneficial to the world of education in Indonesia.

### **RESEARCH METHODS**

This study used a qualitative approach. This research was conducted with a variety of literature and the development of existing literature, namely by studying and collecting research data from bibliographic information. The literature is obtained from a variety of scientific sources, such as journals, books, internet, then the researcher learning hybrid learning model analysis to the reader. Or retrieval of data collection techniques in this research is using secondary data, from the source of accurate and relevant. Library research being done to find the data and restrict information in the literature or materials such as books, articles, journals, newspapers, reports research bodies, libraries, and other relevant sources and related to the management of ICT-based media with social studies lessons for junior high school students. Data or information that has been obtained, the preparation will be conducted based on the study of literature appropriate and justifiable, Analysis of the

data in the article consists of two stages, the process of data reduction and data presentation. Data reduction done to ease the author chose to valid data from published literature, whereas the data presentation is made to the author provides conclusions from the results of the discussion.

## **RESULTS AND DISCUSSION**

Utilization of hybrid learning model-based learning, this learning model links the online learning or using the power of technology to learning directly face to face regularly and effectively (Boyle, Bradley, Chalk, Jones, & Pickard, 2003). The hybrid learning model of learning is learning that is connected to students normally through learning outside the classroom, where educators can use all the facilities already existing technology as a material for a group of learners (Charles R. Graham & Kaleta, 2002). Hybrid learning educators utilized as a learning process based on the environment through the internet or online are done in groups (Tsai, 2011).<sup>1</sup>

In accordance with the above explanation, it can be concluded that the hybrid learning that based learning is learning to collaborate or to connect two ways of learning is by way of direct and indirect (online) is very effective to be applied in the classroom by teachers and lecturers. Therefore, the model implies an engaging hybrid learning, connecting in the learning process.

The developments in the world of education-based learning model hybrid learning is an issue in education is the latest in the development of globalization and technology. Zhao (2008: 162) explains that "the issue of hybrid learning is difficult to interpret because it is something new in the world of education, particularly at the time of this technological sophistication". Although it is quite difficult to define the notion of a hybrid learning model of learning there are some scholars and professors who examined specifically on hybrid learning concepts. Hybrid learning model-based learning that has developed in people's living environment is like facebook, Moodle, web blog, WhatsApp, Line, path, twitter, and others.

The advantages of the hybrid learning model-based learning for learners is to facilitate learners to acquire knowledge not only of learning conducted in the classroom but

<sup>&</sup>lt;sup>1</sup>Tsai, A. 2011. A Hybrid E-Learning Model Incorporating Some of the Principal Learning Theories. Social Behavior and Personality. 145-152 matter.

also outside the classroom, so as to foster the potential of learners, especially in high-level thinking skills. It can also facilitate teachers and lecturers in conducting the learning process, so as to achieve the learning outcomes in accordance with the expected goals.

One example of the application of a hybrid model of learning on the learner through facebook proven to increase student motivation and student learning outcomes in learning. Williams and Jacobs (2004) also state that the use of blogs in online learning can make students more motivated in the learning process. The use and utilization of blogs as a means of learning can provide knowledge and information quickly to students (Weller et al., 2005). Further described by Mora (2006) in learning to use the blog to improve learning outcomes of learners and can make students more interactive in receiving each of the learning process provided by the educators.

Thus, hybrid learning-based learning is defined as a process of learning that can take advantage of a variety of approaches. One of them can take advantage of a wide variety of media and technology being developed very rapidly during this big data. The second approach in learning hybrid learning model is able to use the learning directly in the classroom along with interactive learning.

*hybrid learning* it can simply be defined as learning that combining or linking learning face to face (which means learning can be done in conventional and interactive, where between teacher and student or faculty and students interact with each other directly for the exchange of information related to the learning process), with learning independently (ie learning by using teaching materials that have been prepared, it can be in the form of modules and online media).

Application of hybrid learning model-based learning does not just happen in the practice of learning, there are some things that should be taken into consideration for educators, especially teachers and lecturers. Educators need to consider the characteristics of the learning objectives to be achieved, as well as what would be a suitable activity performed in conventional classroom learning and online classes. Learning hybrid learning model aims to help educators (teachers and professors) to develop the learning process and to be able to grow the potential that exists in self-learners.

The purpose of the hybrid model of learning is that teachers can deliver and implement independent and rewarding learning that continues to grow, in addition, also aims to improve the quality of educators in learning combines face to face and online learning.

Face-to-face learning in the classroom can be used to involve the learners to learn interactively, as well as to establish communication between other students in building knowledge. While in the classroom learning online provides knowledge through content that is of interest in reading for students, so that anywhere the learner can access the knowledge of the internet.

Their sophistication of information and communication technology is very useful for education, especially in learning activities in the classroom so that the impact on the learning process and learning outcomes for learners. Learning by using technology to enhance the positive aspects that are interactive and communicative aspects. The use of hybrid learning-based learning model has some very important components. The important components that consist of traditional ways or face-to-face in the classroom using the latest technology or methods.

Hybrid-based learning Learning is the product or the combined results of the two methods which combine traditional methods that take place face to face with technologybased learning. Of the two methods were combined produce new, more contemporary methods attract more learners and have different styles, which can be effective in dealing with the industrial revolution 4.0. Incorporation of hybrid learning has several phases, the hybrid-based learning concept learning as follows:



Figure 1. Hybrid Learning Concept Learning

Thus, the image of the hybrid learning concept learning above shows that the hybrid learning is the process of combining the two methods, the first method face to face and online both present method, resulting in a new method of the collaboration between the classroom and online. Various other stages are not intended to produce optimal methods for educators and learners. Therefore, learning a hybrid learning model can be said as a result of the merger of the two methods are passed with a structured process and neat This needs to be done so that the hybrid learning itself can be the right method in teaching. This is because the purpose of hybrid learning which to raise a variety of skills.

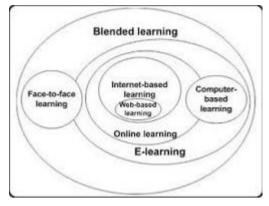


Figure 2. Components of Hybrid Learning

Source: http://alucorporation.blogspot.com/2017/03/konsep-blended-learning.html

Upheld by Neumeir (2005) which states that the model that the most important and effective for the subject, context and individual learning goals. Thus, if the learning model of hybrid learning can be implemented and applied optimally by educators to students, then this model can improve a wide range of potential and the ability of learners, one of skill in the higher-level thinking (Petre Neumeir, 2005).<sup>2</sup>

One of the activities in the hybrid learning model of learning is individual learning, which is marked by the students to learn independently by accessing the learning materials or information provided educators online via the internet or by making use of technological sophistication. But that does not mean learning alone, with no one giving guidance and information (educators), is a self-learning is how to make the students can learn at their own initiative.

According to Dodds (1983) revealed that by using a self-learning system that can position the learning process as the person in charge, controlling and decision-makers in the achievement of even giving their own learning initiatives without the full support by others. Accordingly, Hybrid Learning-based learning model is one of innovation or a breakthrough in the world of education that can be used in teaching in the era of industrial revolution 4.0. This innovation because it involves blending or merging conventional learning models and

<sup>&</sup>lt;sup>2</sup> Neumeier, Petra. 2005. A closer look at Blended Learning - parameters for designing a Blended Learning environment for teaching and learning language, Recall 17 (2): 163-178 Cambridge University Press: Uk PAIKEM. Semarang: Rasail Media Group. It 163-178.

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models of online learning using the Internet network, or the sophistication of the technology, which in this era of the Internet is widely used technology or human, from small children, adults, and older people.

Hybrid learning model Learning requires learners as active as educators in learning. Because the task learners are active in seeking knowledge while educators facilitate learners in the knowledge search process. Because the hybrid learning model Learning is a mixture of theory learning model used was composed of various theories of learning from some of the experts by adjusting the circumstances of learners in the classroom. Thus the task of educators in applying this model is to observe the characteristics of learners.

Implementation of learning by using the Hybrid model Learning online can be applied to educators in some models by using the web, WhatsApp, blogs, Facebook, Instagram, line, path, twitter, telegram, educators can utilize these applications to be able to do online learning or outside class. In the hybrid model learning implementation in learning in primary and secondary education institutions should use applications such as Web, WhatsApp, and telegrams, for the third application is very easy to use by all people. Other than that though educators have implemented online learning in practice is still needed lesson in class, because it is still in the elementary and secondary levels,

The results of the research literature that researchers gathered from various sources, including books, journals, it can be concluded that the internet-based learning model Hybrid effective learning can be harnessed and used in education to deal with or meet the industrial revolution 4.0. Dikarena learning model hybrid learning is a combination of the two modes of learning that is online that utilize the technology, as well as in-person learning in class, with this model educators to innovate in learning in order to improve the skills and all the potential in the self-learners, so that the purpose of education will be achieved.

### CONCLUSION

Results of the discussion in the research above, the writer can conclude briefly that the hybrid learning-based learning model effectively used and applied in learning as an innovation in the world of education in the face of the industrial revolution 4.0. In this era of big data world of education to many changes that are very complex, one of which is a learning model that is used in the classroom. In this era, educators can not use conventional methods of learning more so education is necessary and required in changing the models and methods used in the classroom.

Teachers and Lecturers are expected to choosing an effective and interactive model, the model of learning that is suitable for use in this era of big data. The learning model suitable and effective in facing this era is one using a hybrid learning model-based learning is a model that combines online learning with the use of information technology with face to face learning. So that with this model of learning will be able to offset the industrial revolution 4.0.

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