



Analysis of Teacher Performance Innovation Based on Innovative Learning Strategies in the Industrial Revolution 4.0 Era

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Abstract:

This study aims to analyze teacher performance innovation through the application of innovative learning strategies in the Industrial Revolution 4.0 era. This study was conducted using qualitative methods through observation, interviews, and documentation. While the selection of informants was carried out using purposive sampling techniques. The results of this study indicate that innovative learning strategies applied with various learning models can improve teacher innovation performance in Senior High Schools in Banda Aceh, Indonesia. However, this study also identified various problems in the implementation of these innovative learning strategies. The main problem is related to the ability or readiness of human resources, namely teachers, to adapt to technology. The facts show that the older generation cannot adapt well to innovative learning methods through digital technology compared to the younger generation. It is important to provide guidance and counseling so that they are ready with mastery of technical skills. This study also found the need to integrate the roles of technology and teachers. In addition to providing knowledge, teachers are also character builders. Thus, teachers also need to master both technical skills and soft skills. In this condition, the facts show that the best method for implementing innovative learning strategies in this era that can integrate the existence of technology and human resources or teachers is the Blended Learning method. This method has been proven to be a method that can support teachers in creating various innovations through innovative learning strategies in the era of the Industrial Revolution 4.0.

1. Introduction

Education 4.0 is a term used by education experts to integrate cyber technology into learning. Education 4.0 is a response to the needs of the industrial revolution 4.0 where machines and humans are aligned to find solutions, solve problems and find new innovation possibilities [1]. Changes in the education system have an impact on the role of teachers as educational human resources. Teachers are required to have high competence to produce students who are able to answer the challenges of the Industrial Revolution 4.0. [1,2]. In facing the Industrial Revolution 4.0, teachers are required to develop skills, knowledge and produce new things. Teachers who are able to innovate mean that the

teacher can develop the creative ideas they have in the learning process [3]. The Industrial Revolution 4.0 which is full of technology brings significant changes in various aspects of life. In this era, technology is the basis that causes everything to be limitless and unlimited due to the development of the digital revolution, one of which is the education system in Indonesia. Changes in the education system have an impact on the role of teachers as educators. Teachers are required to have high competence to produce students who are able to answer the challenges of the Industrial Revolution [1,2].

In this era, teachers as professional educators are expected to be able to improve the competencies they need to support their work in facing the challenges and progress of science and technology

[4]. The role of teachers will not be replaced by any sophisticated machine. This is because teachers are needed to shape the character of the nation's children with good character, tolerance, and values. Teachers are also able to foster social empathy, build imagination and creativity, and strengthen the spirit of national unity [1]. Teachers as professional educators are expected to be able to improve the competencies they need to support their work in facing the challenges and progress of science and technology [4].

Therefore, there needs to be a fundamental transformation in the education system in this country. The system in question is an education that truly provides space for creativity for children with teachers who can be motivators in improving student competencies [5].

Therefore, the development of the 4.0 era is a momentum for teachers so that the learning process can improve the quality of personal and student competencies. The use of technology in the form of sophisticated tools today is balanced with the ability to carry out efficient methods that are well-organized in gaining education as an effort to transfer knowledge. In this case, teachers tend to utilize tools or technological products (media) that they consider can help in the learning process so that it needs to be a concern for developers of learning technology [6]. In the era of the industrial revolution 4.0, the use of digital technology in the learning process, completing various tasks, and improving teacher competence cannot be separated from the flow of information and technology developments. Facing these challenges, teachers as the vanguard in the world of education are required to be ready to change and adapt. The role of teachers will not be replaced by any sophisticated machine. This is because teachers are needed to shape the character of the nation's children with good character, tolerance, and values. Teachers are also able to foster social empathy, build imagination and creativity, and strengthen the spirit of national unity [1]. Teachers as parties involved in the education process in schools must always strive to carry out their duties dynamically and innovatively in accordance with developments and demands for change. Society's demands for quality education always have implications for the demand for teachers who can help meet the needs of students with knowledge that continues to develop [7].

Thus, in the era of the Industrial Revolution 4.0, teachers have a strategic role to prepare quality graduates who are able to compete globally and master technology which is important for the future of a country [8]. Teachers in the industrial era 4.0 must be able to prepare the competencies needed to support the learning process. Teachers are

challenged to accelerate the development of information and communication. Classroom learning and classroom management, in this century must be adjusted to the standards of progress in information and communication technology. However, the current problems of education in Indonesia include the quality of Indonesian education which is very low compared to other countries. This is partly due to the low quality of teachers [9]. We still have to question the extent to which the education system in our country is ready in the era of the Industrial Revolution 4.0. The current facts show that the existence of teachers who have professional competence is only a discourse that has not been realized evenly in all education in Indonesia [10]. Data from UNESCO (2017) in the Global Education Monitoring (GEM) Report 2016 shows that the quality of Indonesian education is ranked 10th out of 14 developing countries [11]. Meanwhile, the quality of teachers as an important component in education is ranked 14th out of 14 developing countries. Of course, this fact is very ironic considering that education is an indicator of a nation's progress which indicates that teachers as educators still do not have adequate performance in carrying out their duties and responsibilities as Human Resources (HR) educators.

This condition shows that the problem of human resources is very dominant in the education/learning process, this also means that managing human resources is a very important area in implementing the education/learning process in schools, and among these human resources, the most directly related to education/learning activities are teachers, so how the quality of the performance of Educators/Teachers in the learning process will have a very big impact on the quality of learning outcomes, which will ultimately determine the quality of graduates [9].

In carrying out their role as educators, the quality of teacher performance is an important contribution that will determine the success of the education process. Therefore, attention to the development of teacher performance to continue to improve and be improved is very urgent, especially when considering the increasing demands of society related to the quality of education, and this of course will have implications for the increasing need to improve the quality of teacher performance [12].

Therefore, there needs to be a fundamental transformation in the education system in this country. The system in question is an education that truly provides space for creativity for children with teachers who can be motivators in improving student competence. In conditions like this, when we are going to improve the quality of education, we must first improve the quality of teachers. Improving the

quality of teacher performance in education 4.0 can only be implemented by referring to the new paradigm of education characterized by students as connectors, creators, and constructivists in the context of producing and applying knowledge and innovation [1]. Every obstacle or problem that arises in the learning process must be able to be overcome by producing new solutions. These new solutions can be realized by implementing learning innovation strategies that can improve students' creative thinking skills [13]. Teacher performance in carrying out their roles and duties in schools, especially in the learning process in the current context, requires development and change towards something more innovative. Teacher innovative performance is important for the successful implementation of educational innovation in order to improve the quality of education or learning. Thus, it is expected that professional teachers will continue to strive to implement innovative learning in order to improve their competence by using new learning strategies that are more conducive through changes towards the better which are reflected in the behavior and attitudes of teachers who work more professionally to carry out innovation in their efforts to find new learning. Educational innovation is a must for teachers. Innovation changes the pedagogical system, improves the teaching process and its results [14].

Therefore, one way to improve professional competence is for teachers to be more proactive in seeking innovation in teaching methods. Learning strategies are competencies that teachers must have. As an alternative choice and development of learning methods, teachers can apply more varied and more skilled learning strategies to plan the development of learning models that are in accordance with the characteristics of the subject, creating a pleasant learning atmosphere.

Therefore, one of the teaching strategies to improve student motivation and learning completion that requires teacher innovation and improvisation is to use an innovative learning model [15]. As stated by Nurdyansyah and Andiek (2015), the quality of learning is one of the factors that plays a very important role in improving the quality of education, so that continuous improvement formulates teacher teaching strategies by implementing innovative learning [16].

Previous research results have proven that innovative learning strategies can provide a positive impact on various important components in educational innovation. Research conducted by Naz and Murad (2017) found that the implementation of innovative learning strategies by teachers in responding to various student character diversities has an influence on improving student achievement

[17]. Khurshid and Ansari (2012) found that teacher behavior and teaching models towards students through innovative learning strategies can provide psychological effects to students to improve learning outcomes [18]. Likewise, Dalyono (2016) proved that innovative learning models make it easier for students to achieve learning competencies [19].

Meanwhile, previous studies have also proven that innovative performance has a significant relationship to the implementation of educational innovation. The study showed that creativity has a direct effect on service innovation. The implementation of work by innovative human resources illustrates the performance of innovative teachers in carrying out service functions. Furthermore, Utomo & Widodo (2012) found in their research results that increasing teacher innovative performance is influenced by teacher professionalism which is certainly related to their professional performance. Furthermore, research by Saudagar and Idrus (2009) found that professionalism is also seen as a commitment by members of a profession to improve professional abilities and continuously develop strategies used in doing work/improving performance according to their profession [20]. Likewise, research by Liliyasi (2008) found that innovative learning models are closely related to supporting teacher professionalism [21]. Innovative learning models are learning models needed to support teacher competence. In this case, research by Stiawan et al. (2017) also found that teacher work innovation resulted in changes in teaching planning, changes in using new methods and evaluation with new techniques through teacher renewal using innovative learning methods and models [22]. From the various things that have been stated previously, it can be concluded that innovative learning strategies are one of the right models to be applied in an effort to improve teacher performance innovation in the Industrial Revolution 4.0 Era. It is hoped that innovative learning models will have an impact on teacher performance innovation which of course improves their professional competence through the creation of various innovations in the learning process based on digital technology. Therefore, researchers consider it necessary to study in more depth how the impact of innovative learning strategies on improving teacher performance innovation in the Industrial Revolution 4.0 era in High Schools in Banda Aceh, Indonesia.

2. Material and Methods

The approach used in this study is a qualitative research method using a descriptive analysis method. This study aims to describe and analyze phenomena so that researchers can obtain data and

information in more depth and detail. As stated the researchers can freely choose which methods, techniques, and procedures to use according to their needs and goals. By using qualitative methods, it is hoped that they will be able to answer the phenomena that arise regarding the issue of teacher performance innovation through innovative learning strategies so that it is known more specifically how the application of innovative learning strategies can improve teacher performance innovation in the Industrial Revolution 4.0 era.

The place or location for the implementation of the research is a Senior High School located in Banda Aceh. The informants who are participants in this study are people who really know and master the problems and are directly involved in the problems being studied. Therefore, the selection of informants is by using Purposive techniques, namely determination with a purposeful technique by taking subjects based on certain goals which are commonly called Creation Based Sampling.

In accordance with the objectives of the study, the respondents in this study were the Principals because they are the school management as the person in charge and officials who know and understand teacher performance innovation in their respective schools. A total of 8 respondents were involved in this study to provide the data and information needed. Data collection was carried out through the semi-structured interview method. Semi-structured interviews are interviews based on formally structured questions. This method is a form of data collection that allows researchers to explore the perspectives and perceptions of various stakeholders.

This study was conducted through face-to-face interviews that used a duration of between 15 to 20 minutes. Respondents were asked for their willingness to convey their thoughts on the questions given related to the main theme of the study, namely understanding teacher performance innovation, innovative learning strategies, teacher performance innovation and innovative learning strategies in the Industrial Revolution 4.0 era and also the obstacles in implementing these concepts. All answers from respondents were recorded and transcribed, coded, reviewed, and reduced to themes according to interview questions.

For data analysis techniques, this study uses interactive analysis models. The qualitative data analysis is carried out interactively and continues continuously until complete, so that the data is saturated. In qualitative data analysis, there are three flows of activities that occur simultaneously, namely:

1. Data Condensation: after data collection is complete, data reduction is carried out, namely

classifying, directing, discarding unnecessary and organizing it, so that the data is sorted

2. Data Display: data that has been reduced will be presented in narrative form

3. Conclusion Drawing: drawing conclusions from the data that has been presented in the second stage by drawing conclusions.

3. Results and Discussions

This study was conducted in order to improve teacher performance innovation in the Industrial Revolution 4.0 era, namely by analyzing innovative learning strategies that focus on the use of cyber technology. This study successfully identified the right learning strategy as a solution to improve the quality of learning by teachers, namely through the Blended Learning learning model. This learning model is integrated with the use of digital technology to increase student motivation in the classroom in learning. In addition, this study also succeeded in identifying various important factors that inhibit teacher performance innovation in implementing innovative learning strategies in the Industrial Revolution 4.0 era.

A teacher is required to be able to act as an innovator in carrying out his role as an educator. Various innovations produced by teachers in learning are the implementation of new ideas or ideas presented in learning so that teachers are able to improve their performance as educational facilitators. All participants stated that they were very enthusiastic about various teacher innovations in learning. As stated by participants 1, 2, 3, 4, 5, 6, and 7 that teachers in their schools have actively participated in the learning process by presenting various innovations through new learning methods given to students in class that have never existed before and have an impact on improving teacher performance.

Innovation in teacher performance is a demand that must be met along with the current development of the era. Participant 2 emphasized that "the demands of the times in the Industrial Revolution 4.0 era have required the education sector to continue to innovate, especially in the learning process through the use of technology. We from educational institutions are very enthusiastic about this because we cannot avoid the demands of the times. Therefore, our institution in facing these existing conditions continues to strive to innovate in the learning process where teachers are always directed and guided towards mastery of Information and Technology (IT) in providing learning materials. They must adapt to information technology where teachers are directed to prepare interesting learning materials for students in class. The innovations presented by teachers in learning have had a positive impact on improving the quality

of learning. Participant 1 explained that with the innovation of teacher performance, students will be more active and motivated in learning. Participant 4 explained that innovation in teacher performance is very much needed, especially in anticipating educational issues in the current Covid-19 Pandemic situation. The same answer was given by Participant 2, various innovations by teachers in learning certainly do not make students bored because they only focus on passive learning unilaterally which is usually in the form of lecture. With learning innovation, teachers will be able to present interesting learning so that students are more enthusiastic in participating in learning.

Innovation itself is not only because of a demand on a teacher but also provides positive feedback to a teacher. In addition to students, teacher performance innovation also provides benefits for the teacher himself. Participant 5 explained that "teacher performance innovation will increase students' insight, especially in the implementation of solving learning problems. In addition, teachers will also find out more because they are continuously required to innovate in learning to improve their performance." The existing facts show that most respondents have indeed made efforts to improve teacher performance innovation. Participant 7 explained that they have made various efforts as a form of increasing teacher performance innovation, including conducting evaluations such as through the Google form application to see student responses to teacher performance so that various efforts can be made to improve teacher performance if it is still less than satisfactory.

Innovative learning strategies facilitate students in learning so that they are able to develop and achieve. Innovative learning strategies require active participation from students which is certainly different from traditional learning methods. Participant 4 explained that innovative learning strategies are a very good concept and have been implemented in their school. Our teachers are required to adopt the 5C concept, namely; critical thinking, collaboration, communication, creativity and character. For students, we have also implemented various interesting and fun learning methods in order to increase learning creativity, for example with cooperative methods such as snowball, Problem-oriented and project-based learning (POPBL), and also other e-learning methods.

Innovative learning strategies require creativity and participation from students in classroom learning. Participant 5 stated the same response to innovative learning strategies in their school, "There are many innovative learning strategies that we have implemented to encourage students to be more active in learning. Participant 7 emphasized, "one of the

students' activeness is seen when the teacher gives group work. During the discussion they collect materials via the internet. With innovative learning, students are motivated to follow learning that interests them, either through group collaboration, role-playing, and others. Teachers have facilitated students so that Android or cellphones (HP) are not used for purposes unrelated to the learning process. We also use the internet through the Google Form application when accessing exam questions. Other innovative learning strategies, for example, students are also given learning to prepare short learning videos through the help of the internet. We have been implementing it for 2 years."

Participants 1, 2, 3 and 4, 5 stated that they had implemented innovative learning strategies by implementing special methods for learning, namely e-learning applications or Learning Management Systems (LMS). Participant 4 emphasized that the concept of innovative learning strategies is very appropriate because it directs students to find out. Students can use existing technology to find teaching materials that will be given by teachers in class.

Innovative Learning Strategies and Teacher Performance Innovation in the Industrial Revolution 4.0 Era.

Professional teachers in the Industrial Revolution 4.0 era are required to be able to create various innovations in the context of their performance. Innovative Learning Strategies can be utilized to improve teacher performance innovation in the Industrial Revolution 4.0 era can be achieved through the use of technology such as artificial intelligence or other digital technologies that can be presented by teachers in the classroom as a form of learning innovation. All respondents, namely respondents stated: "We have implemented innovative learning strategies through the use of internet technology in the Industrial Revolution 4.0 era. With innovative learning strategies, our teachers can improvise by utilizing internet technology through various learning models that can encourage students' enthusiasm for learning. Teachers use interesting learning methods through internet technology." According to participant 1, "With this innovative learning, students are more active and motivated in learning. Teachers can improve their performance by providing learning methods that motivate students to learn by using technological facilities in the Industrial Revolution 4.0 era. Participant 2 stated that the learning process is interesting so that children are motivated because it is not only the lecture method that certainly has an impact on their performance.

Although innovative learning strategies can improve teacher performance innovation, participant 4 emphasized that the implementation of innovative

learning strategies requires physical and non-physical readiness from a teacher because it has an impact on teacher psychology. Participant 4 stated: "Yes, this innovative learning strategy will improve teacher performance innovation. But it affects the psychology of teachers who do not have the ability to master IT, especially for teachers who are about to retire or are elderly because they are stressed having to deal with technology. They usually only prepare materials manually but suddenly have to deal with technology. But they keep trying. Some ask for help from friends and also bring companions. Participants 2, 4 and 7 emphasized that mastery of technology must still require the active participation of teachers or more precisely done with the Blendid Learning system which requires online learning but is still guided by teachers.

As stated by Participant 4, he emphasized, "We see blended learning or combination learning as more appropriate because it is a combination of face-to-face and online learning because there is interaction between educators and students. Participant 4 explained that the role of teachers is very supportive because with continuous online learning, children will get bored. With face-to-face they are more motivated. Only a small percentage of children learn independently. The school environment supports them to learn. In addition, character education is also very important for students because the purpose of education is not only to provide knowledge. Participant 2 emphasized, "the ideal learning process, even if used with the most sophisticated technology, without the presence of a teacher with the child will not be successful because the learning process is not just a transfer of knowledge but there must be character building, morals and there must be a special touch from the teacher. The embrace and touch of a teacher have a very deep meaning for a child. In terms of knowledge, okay, but we are not only producing intelligent people but also producing people with morals. Intelligent people without morals will not be successful. Because the purpose of education is not just that. The meeting between teachers and children is a meaningful process. The same statement was conveyed by participants 2 and 4, "the function of teachers in the Industrial Revolution 4.0 era is still important. Teachers must be able to accompany students in addition to mastering technology but they must also be given character education. Participant 5 stated that this innovative learning strategy at least increases teachers' insight because they have to read first. Teachers are also more active so as not to miss information from students. However, there is an obstacle that students do not have internet access. We have handled it, we opened a lab for students who do not have cellphones or computers. The

network is not a problem. Android got from the Minister of Education and Culture but it is also problematic. According to participant 7, the innovative learning strategy is very supportive and helps teachers because some of the teaching materials are already known to students, only different understandings, so they still need to be guided by lecturers. Students are given the freedom not to have to read textbooks. Because our textbooks are also limited, but with technology, teaching materials can be searched from various sources guided by teachers.

5.1.4 Constraints Faced by Human Resources

In implementing innovative learning strategies in the Industrial Revolution 4.0 era, obstacles were encountered by the human resources in the school, namely the teachers as the task executors. In general, all respondents stated that they were constrained by Human Resources (HR) problems. Participants 1,2, 3, 4, 5 and 6 emphasized: "We face obstacles because the condition of senior teachers, most of whom are not used to using technology, but in this day and age they must be required to utilize this technology. Anticipation is to provide continuous assistance, coaching by utilizing operator personnel. We always direct their free time to learn about media and learning materials by utilizing IT, which automatically during this Covid period they must use these applications such as e-learning, learning pedia applications and other free applications. In general, participants stated that the HR factor is greatly influenced by the age of the teacher or teaching staff. Facts in the field found that senior or elderly HR are less able to utilize technology in learning because they are indeed less motivated to improve their skills or expertise in the field of technology. Participant 1 stated that in their school only around 50% of teachers use innovative learning by utilizing internet technology. They are all young teachers who seem to be more productive and indeed their performance is also better at the school. The remaining 50% more teachers who are older or senior teachers.

Participants 2, 3 and 4 also stated the same thing that the percentage of human resources who master technology is still smaller than those who master technology. However, one respondent, participant 5, gave a different answer as follows: "that digital technology is indeed assumed to be more suitable for the younger generation. But in fact, senior or elderly teachers in our school are still very motivated and willing to learn to improve their abilities in the field of technology. One participant, participant 7, stated that he had no problems with human resources. The respondent explained that human resources with technology in our place because the percentage of younger lecturers is greater than elderly lecturers.

According to participant 4, they need to work harder to improve the mastery of technology by senior or elderly human resources. We have conducted training for human resources or the elderly, but after that they still seem to be constrained because they need an understanding of the technology. During the Covid pandemic, teachers have been forced to teach online.

In addition, training for teachers has also gone well in these schools. According to participant 2, the school has provided assistance and guidance by preparing operators for senior teachers who usually have problems with the use of technology. However, according to participant 1, training and coaching also seem unlikely to be implemented successfully without being supported by character or behavioral coaching of educators. One respondent, participant 1, stated that "Our human resources in this school have limited capabilities. Some teachers, especially the younger generation, are willing to develop themselves, but some, especially the older ones, are still struggling with old methods in learning. We can't do much because the goal is for them to be willing to carry out their duties, so there needs to be a commitment from teachers in carrying out their duties and obligations as educators so that they are able to apply innovative learning strategies. As stated by participant 1: "We continue to make efforts to improve teacher skills by sending them to attend training. However, the facts in the field show that after completing the training, there are several teachers who have not had good performance so far, so they do not implement the knowledge or skills obtained from the training, so this activity does not seem to have a strong effect on improving teacher

performance innovation." Meanwhile, participant 4 stated that the training given to teachers did not immediately produce results in a short time. Teachers need a long time to be able to understand because it is not familiar except for the current young generation. We from the school try to guide them slowly. They still need to be accompanied or guided by teachers to be more enthusiastic. More effective with a blended system. LMS is less effective because they are bored.

This research has produced outputs in the form of full articles as planned in the proposal outputs. The articles have been registered and sent for activities including:

1. Scientific publication in a Scopus indexed international journal, namely the Malaysian Online Journal of Educational Management, ISSN 22894489, a journal published by the University of Malaya (UM) Malaysia.
2. Scientific publication at an international conference, namely the Annual International Conference (AIC), Syiah Kuala University in 2021. The research team is a speaker at the scientific meeting held on 29-30 September 2021.
3. Textbooks for students in 2022 (according to the proposal output) are in draft form for the editing and printing process to USK Press
4. Intellectual Property Rights (IPR) for Textbooks are in the process of submitting Copyright through the IPR Center, LPPM, Syiah Kuala University. Specifically, the details of the types of progress report outputs are as seen in the progress of photos or documentation in attachments 1, 2, 3, 4 and 5. Meanwhile, in table 1. the report outputs are also summarized as follows:

Table 1. Outputs achieved

No.	Output Type		Achievements
1.	Scientific Publication	International	Articles in the review process in the targeted reputable journal indexed by Scopus, namely the Malaysian Online Journal of Educational Management (MOJEM), ISSN: 22894489 Citation Rank: Q3.
2.	Scientific Meeting Presenter	International	Proceedings at the 2021 Annual International Conference (AIC), 29-30 September 2021
3.	Intellectual Property Rights (IPR)	Copyright	Textbooks in the process of submitting Copyright to the Ministry of Law and Human Rights (HAM) of the Republic of Indonesia
4.	Textbooks (ISBN) for students in 2022		Draft for editing and publishing process to USK Press

4. Conclusions

Teacher performance innovation in the context of the Industrial Revolution 4.0 era requires development and change towards a more innovative direction because it greatly determines the success of educational innovation. This study found the fact that

schools in Banda Aceh, Indonesia have implemented innovative learning through the use of cyber technology in the Industrial Revolution 4.0 era. Of course, through this innovative learning strategy, teacher performance innovation can be improved through the implementation of various new ideas in learning. The Industrial Revolution 4.0 through cyber

technology can provide quality learning for students and is able to improve performance as educators. However, this study found that the main obstacle in improving teacher performance innovation is the limited readiness of human resources who are at the level or generation that is already old (senior). Of course this is different from the readiness of the new generation who are indeed very familiar with cyber technology. To anticipate these problems, the role of school management is very important in guiding teachers to implement innovative learning in schools so that they have strong motivation and commitment and also readiness to implement cyber learning in the Industrial Revolution 4.0 era. In addition to training, schools must also provide intensive assistance so that they can improve a teacher's technical skills. However, the role of teachers is very important in the Industrial Revolution 4.0 era. In addition to knowledge transfer through the use of technology, character building is still the main goal of educational development so that it not only produces superior human resources but also those with good character. Therefore, in addition to technical skills, a teacher also needs to be given mastery of soft skills so that there needs to be integration between technology and teachers as human resources educators to create new innovations in learning. Based on the facts found, the blended learning method is the right solution in the Industrial Revolution era that prioritizes the role of teachers as professional human resources supported by cyber technology..

Author Statements:

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