



Professionalism Analysis in Improving Self-Development in the Industry 4.0 Era

Eka Kristanto; Otib Satibi Hidayat; Ika Lestari

Department of Elementary Teacher Education, Universitas Negeri Jakarta, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v9i1.3393>

Abstract

This study aims to analyze professionalism in improving self-development in the industrial era 4.0. The research method is descriptive qualitative with interview method. The target population in this study were teachers in 15 public elementary schools in the PuloGadung sub-district, East Jakarta. The sample taken was 55 teachers. The data analysis technique used in this research is PEA (Practical Epistemology Analysis). The results of the study show that: 1) Professionalism is seen as the main task in performing well as a teacher, so that it can be an example for students, and can socialize well 2) The main competence that must be possessed by a teacher is the ability to utilize integrated technology. by learning than providing distance learning to be more meaningful and the ability to grow the character and personality of students in participating in digital-based learning; 3) Some teachers interpret professionalism as only carrying out their main task in educating students at school without thinking about developing themselves to face the 4.0 era; 4) Contextual learning during the pandemic is very easy and very important to apply in learning because it can improve students' critical thinking and can add experience in interacting students with the surrounding environment, besides that students become able with their awareness to create ideas and practice their ideas both for themselves, family, or for the surrounding environment; 5) According to some teachers, the way to get information in the 4.0 era can be done by following the development of information from various simple digital technology sources such as television, internet, smartphones. In utilizing various media for self-development, it can be done by understanding the various types of media which are very numerous, and then can be adapted to our own needs.

Keywords: *Teacher Professionalism; Self-Development; Industrial Era 4.0*

Introduction

The goal of every nation is to educate all the lives of its people through qualified education programs. The future of the nation is largely determined by the natural resources contained in the nation and the human resources it has. Human resources are expected to have the potential that is contained in humans both thinking, knowledge, attitudes, skills, using available technology to help themselves carry out productive work in managing available natural resources properly or in other fields, one of which is education (Setiawan et al., 2021).

The teaching profession is an aspiration for most people because teachers are highly respected and occupy a high social status in the eyes of the wider community. Society always pays attention to every movement made by a teacher in interacting in the surrounding environment (Utomo et al., 2021). Holding the teaching profession is like a public official who has great charisma for himself and his family. This image is built because a teacher is considered to have integrity and credibility in living his life. In addition, the community views teachers as not only teaching students in front of the class but also educating, guiding, directing, producing students who are intelligent, knowledgeable, qualified, and have good personalities (Yustitia et al., 2021).

The teaching and learning process is under the goals of national education and what the community wants is a change in the cognitive, affective, and psychomotor aspects. It is intended that the process and results of teaching and learning are carried out optimally. Management of school quality improvement can be implemented properly if it is supported by the presence of professional teachers by carrying out various developments according to the needs of each school.

Teacher competence being the main topic of discussion among the wider community is considered to have a double effect on the mentality of a teacher in teaching and maintaining their professional spirit. Based on data released (United Nations Development Program, 2017) on the 2015 Indonesia Human Development Index, it is ranked 113 out of 188 countries. The ranking is based on the composition obtained by Indonesia based on the educational attainment of 3.3% of GDP (Acesta et al., 2021).

Efforts to improve the quality of human resources during the current pandemic need to be balanced by the self-development of a teacher. Recognizing the importance of the teacher as the front line in reform to improve the progress of sustainable education in line with the development of science, technology, and art, which are needed today. The ability of teachers in mastering materials, managing learning, managing classes, managing media, and learning resources, mastering educational foundations, recognizing teaching and learning interactions, assessing student achievement, and getting to know school administration using technology. Teachers as the frontline in improving educational progress is a worldwide challenge, as explained by Gerald and Alexander (2015):

According to the Emerald Insight, Teacher effectiveness and teacher quality have become the focus of intense international attention and national concern. Dozens of nations are implementing a diverse set of strategies that aim to improve the quality of education by improving the quality of teachers. These efforts have not been well coordinated, and why teachers are now of policymaker's attention. There are two complex questions: (1) what existing cross-national measures of teacher effectiveness and teacher quality are most promising and how can these be aligned to maximize their research potential? and (2) what core constructs of teacher quality or effectiveness are missing from the evidence-based, and how can cross-national comparative research help refine these? (Emerald, Challenges of Teacher Effectiveness and Quality Worldwide, 2015).

Quality education is the main requirement to increase the prosperity and competitiveness of a nation, to obtain quality education requires a large cost. Seeing the condition of Indonesia which is very broad and has a lot of human resources, it takes a very large cost to advance the quality of education. Seeing these conditions, the government and the DPR issued Article 31 of the 1945 Constitution Paragraph 4 which obliges the government to allocate a minimum education budget of 20% of the State Expenditure Budget (APBN) which is the obligation of the State through the government to fulfill it and is the right of every citizen from Sabang to Merauke to obtain and enjoy quality and quality education. In addition, the 20% budget is the obligation of the State through the government to provide affordable education costs and can even subsidize it through a scholarship program for the underprivileged (Juniarso et al., 2020).

Along with the demands of the times and the development of the world of education, the quality of teachers is a must to be improved, including in educational qualifications. In the past, someone who wanted to become a teacher only needed to have an SPG certificate and the equivalent. The government and the DPR issued a new policy through Law No. 14 of 2005 Article 2 Paragraph 2 which contains to increase the dignity and role of teachers as learning agents, motivators, facilitators, boosters, learning engineers, and inspirers for students. by someone who has academic qualifications, competencies, and educator certificates under the requirements for each type and a certain level of education so that he is considered worthy to carry out a task he carries out (Irawan & Iasha, 2021). In carrying out the professional duties of a teacher, seeing the rapidly changing times, the government and the DPR mandate the world of education to produce human resources under the progress of Science and Technology (IPTEK) as stated in Law No. 14 of 2005 Article 20 which requires teachers to carry out their professional duties by continuously improving and developing academic qualifications and competencies in line with the development of science, technology, and the arts (Wahyudiana et al., 2021).

Professionalism supported by the self-development of a teacher is an indispensable requirement and cannot be delayed any longer to answer the challenges in carrying out learning and character building, the social life of students during the pandemic, and along with the increasing competition that is getting tougher in entering the Revolutionary era. Industry 4.0. Era 4.0 is a very different period from the previous period (Yetti et al., 2021). In entering the 4.0 era, teachers have a very strategic role because they are expected to have their skills and expertise with the aim of forming the character, intelligence, and skills of students on the importance of using technology in every lesson. The Industrial Revolution 4.0 is a system of transformation of human life and civilization. The transformation in question is a rapid change in all lines of human life. A very visible feature of this revolution is the connectedness of various capable technological devices, and the combination of three domains, namely digital, physical, and biological (Rachamatika et al., 2021).

Weyer (2015) says that the industrial era 4.0 focuses on three paradigms; (1) Smart Product is a machine equipped with sensors and microchips, then controlled by software and connected to the internet. The existence of smart products indirectly shifts the role of humans slowly and activates some of the necessary equipment, (2) Smart Machine is a device equipped with machines and already uses computerized technology actively and independently without needing to be controlled by humans. In the intelligent machine system using an open network, semantic description, communication between autonomous components, replaces the previous traditional production hierarchy. Intelligent machines can be used to solve problems, make decisions, take action, increase flexibility in production, (3) Augmented Operator is technology support with a production system that is more automated, flexible, and modular. In Additional Operators greatly facilitate humans to take strategic decisions and flexible problem-solving in situations of increasing technical complexity. Thus, it is hoped that the self-development of a teacher can help teacher professionalism and assist students in using technology to help them understand the learning process, fostering student interest in literacy, especially digital literacy. Then slowly the quality of education and the quality of students as human resources will increase in the 4.0 era (Sudrajat et al., 2021).

The self-development of a teacher in the 4.0 era, in reality, did not run as smoothly as previously imagined, even when compared to other countries, the self-development of a teacher in the 4.0 era was very far behind. Entering the 4.0 era, a teacher still seems to be in a very comfortable position to carry out teaching and learning activities in schools in general, such as providing explanations of material using the lecture method, without using learning media, there is no technological progress used by teachers in the learning process. Very few teachers try to get out of this comfortable position and dare to apply technology-based learning or apply to learn based on the results of training activities that have been attended by a teacher. Amit Joshi and Muddu Vinay (2020) explained how the conditions of education had undergone significant changes:

According to Emerald Insight, In India, the education system has changed the traditional education system to the educational technologies (EdTechs) model, where teaching and assessments are conducted online. (Emerald, Impact of Coronavirus pandemic on the Indian education sector, 2020).

Entering the 4.0 era, professionalism is faced with various demands and empowerment that should be given to teachers in self-development, but the research conducted by Nunung Siti Hamidah in 2019 has not directed professionalism with various demands and empowerment given to teachers in self-development to be ready to enter the industrial era 4.0. So the researcher wants to study more specific and direct professionalism with various demands and empowerment given to teachers in self-development to be ready to enter the industrial era 4.0 because in the 4.0 era a teacher is faced with technology that is growing rapidly. This is a demand that must be adjusted by the teacher. A teacher's self-development is needed to adapt to technology. There are many ways a teacher can adapt to technology, such as participating in learning media development training carried out by the ministry of education and culture, education offices, institutions, institutions, related organizations engaged in education.

Literature Review

Teacher Professionalism

To ensure that the teacher is a professional job can pay attention to the indicators of professional work proposed by Sanjaya (2012:15), namely:

- a. Professional work is supported by a particular knowledge in depth which is only possible to obtain from appropriate educational institutions so that its performance is based on the knowledge it has which can be scientifically justified.
- b. A profession emphasizes expertise in a specific field that is specific to the type of profession so that one profession can be separated from one another.
- c. The level of ability and expertise is based on the educational background he experiences which is recognized by the community, so the higher the academic educational background under his profession, the higher the level of expertise, thus the higher the award he receives.
- d. A profession besides being needed by the community also has an impact on the social community, so that the community has a very high sensitivity to any effects it causes from the work of the profession.
- e. A profession needs professional, social, and personality abilities so that apart from being able to master the material for which it is responsible, understand the basic scientific concepts, it can adapt to the demands of work and the surrounding environment, thus attitudes, understanding, appreciation of values -the value of his work, can be used as a role model and role model for the people around him

Professional teachers do not only pay attention to the applicable teacher code of ethics but also need to pay attention to factors that can affect the professionalism of a teacher, both factors that come from within a teacher (internal) and factors that come from outside of a teacher (external). . Internal factors include:

- 1) Educational background greatly affects the professionalism of a teacher because there will be an impact on learning in the classroom, the background is one of the requirements, because there are teachers who come from teacher educators who are not necessarily good at preparing lesson plans, while teachers who come from not from teacher education does not necessarily understand and be able to understand and prepare lesson plans well,
- 2) Teaching experience needs to be considered, because the more experience the teacher has, the better the teacher understands and handles problems that exist in the learning process.

- 3) The welfare of teachers must be considered if we want to find truly professional teachers, because there are rarely teachers who last long teaching with mediocre salaries, of course, teachers will look for salaries that are under their duties at school, although there is a small possibility because there are certain plans or goals, perhaps because they do not expect a salary but because of comfort or family.

Teacher Self Development

In the world of education, self-development is very important to achieve what is mandated in the National Education Goals. The government continues to strive to carry out various reforms in the field of education, one of which is in improving the quality of teachers on an ongoing basis to achieve the quality of education as expected in the National Education Goals so that we can become a dignified nation that can compete, side by side, and even compete with other countries. other countries in the world (Mulyasa, 2013:8). One form of government support in reforming the education sector, one of which is in improving the quality of teachers, is the issuance of Government Regulation Number 19 of 2017 concerning Teachers and Lecturers as a form of appreciation and promising significant changes for empowering teacher quality, especially in the aspect of welfare and self-development of a teacher. With the issuance of a Government Regulation, it strengthens the existing law, namely Law No. 14 of 2005, as an umbrella regulation in strengthening the role, function, and existence of a teacher.

Meanwhile, Wibowo (2011:12) states that self-development is how individuals can educate themselves because true self-development is an activity to teach oneself good things, which has the potential to encourage us to actualize to its fullest. Musfah (2016: 185) adds that self-development is related to the development of increasing one's professionalism in participating in activities or processes carried out to maintain or improve professional skills, attitudes, understanding, or actions and encouraging individuals in their current and future duties. through a series of activities such as training, seminars, group discussions, continuing education, or comparative studies.

The role of technology in education cannot be separated anymore. The government has also regulated the need for technology in various laws and regulations. One of them is stated in the Minister of National Education Regulation No. 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies. Teacher's Pedagogic Competence point 5 says that "Teachers must use information and communication technology for learning purposes". Emphasized in Permendiknas No 22 of 2016 concerning Process Standards, under Graduate Competency Standards and Content Standards, the learning principle used in point 13 states that "Utilizing information and communication technology to improve learning efficiency and effectiveness". Based on the legislation that has been issued by the government, it is stated that a teacher is required to be able to adapt to technology that is developing rapidly so that learning devices and teaching and learning processes seem innovative and creative.

Industrial Revolution 4.0

The industrial revolution 4.0 has the characteristics of a combination of several of the latest technological developments, namely:

- a. Cyber-Physical Systems (Cyber-Physical Systems) is a system that can improve the ability to control and monitor physical processes, with the help of sensors, intelligent robots, drones, 3D printers, and so on.
- b. Information and Communication Technology (Information and Communication Technology) is a digitalization technology and can disseminate information and communication applications to integrate all systems in all aspects of human life into digitization.
- c. Network Communications (Network Communications) a network with high quality that is trusted is the most important requirement for industry 4.0 and is very important for developing internet network infrastructure. Networks with high internet capabilities can connect these components so

that they can carry out self-regulation of the operation of cyber-physical systems (Cyber-Physical Systems).

- d. Big Data and Cloud Computing are big data that can be used to retrieve information over a network to model, virtualize, and simulate products and manufacturing processes. Big Data and Cloud Computing, make it easy for users to store various data with very large capacities without having to be confused about storage space and can carry out direct monitoring and can be done wherever they are.

Utilization that is not optimal in the industrial era 4.0 will be a negative and bad impact on human life because the industrial era 4.0 can change the way human activities are carried out in scale, scope, time, complexity, and transformation from previous life experiences. Humans will live in global uncertainty, and change the way humans work slowly as before, all activities were carried out in the office, school, or in a predetermined place, so in the 4.0 era, it is possible for humans to work, study, and have activities at home, in other words. With technology in addition to helping humans, technology is also slowly starting to take over the role of humans. Therefore, humans must have the ability to predict a future that can change very quickly. Each country must respond to these changes in an integrated and comprehensive manner. This response involves all global political stakeholders, ranging from the public, private, academia, to civil society so that the challenges of industry 4.0 can be managed into opportunities.

Digital literacy can lead people to improve their ability to read, analyze, and use information in the digital world. Supported by technological literacy, it can provide a human understanding of how machines work and the application of technology and human literacy can help improve communication skills and mastery of science related to technology that continues to grow rapidly (Aoun, 2017). In other words, the three literacy skills become an integral part that humans need to face the industrial era 4.0 and can create competitive human resources by combining literacy movements that focus on reading, writing, and arithmetic with technology-based literacy movements.

Materials regarding teacher professionalism in self-development were also researched by Kuliawati (2018) at Sunan Kalijaga State Islamic University, Yogyakarta. In line with previous research, this research is also qualitative research by direct observation. This research was conducted at SDN Inpres Kecil Salena, located in Buluri Village, Ulujadi District, Palu City, Central Sulawesi. The place where the research is carried out in one of the regions with the status of an underdeveloped area.

Research Methodology

This research was conducted using a qualitative case study approach. The case study used in this study refers to Bassey who focuses on educational case studies. Moleong (2014:4) explains that a case study is empirical research conducted within limits (space and time), focused on various interesting aspects of an education system, carried out in a natural context (as it is), guided by the ethics of respecting others. and providing information on developments and decisions for practitioners and policymakers.

In particular, the data collected is used by researchers to 1) explore the significance of a case (significant), 2) interpret findings plausibly (plausible), 3) test the level of trust in the interpretation and meaning, 4) develop arguments or reasons and adequate story (worthwhile), 5) linking the argument or story with other relevant research, 6) convincingly stating the argument and story to the reader and 7) providing a mechanism for the validity of the findings and arguments.

This research was conducted at a public elementary school in the Pulogadung District, Jakarta. Schools located in big city areas and have easy access to support activities that teachers want to do.

This research was carried out using several instruments under the procedures of the research questions. In designing the research design, the researcher used a conversation grid instrument with the interview method, as well as the interview design format.

To analyze the data that the researcher has obtained and classified, the researcher uses the PEA (Practical Epistemology Analysis) technique. In this stage the data is analyzed based on the stand fast (an action or words that the teacher does without questioning it, meaning the teacher just does it without knowing clear information), gap (the gap that the teacher has felt so far), lingering (endless gap), encounter (actions or words that can eliminate gaps in the process and encounters can come from anywhere), and relations (the meaning generated).

The target population in this study was PAUD teachers in DKI Jakarta Province. While the affordable population in this study was PAUD teachers in the East Jakarta and South Jakarta areas. The sample was taken as many as 128 consisting of 64 teachers in the East Jakarta area and 64 teachers in the South Jakarta area.

The sampling technique method used in this research is Multistage Random Sampling. The data analysis technique used in this research is to use two-way ANAVA.

Results and Discussion

Research Result

The results of the author's research on teacher professionalism in 15 public elementary schools in the Pulogadung sub-district found several different points of view in understanding the meaning of a teacher's professionalism, including 1. Professionalism is seen as the main task in performing well as a teacher, so that it can be an example for students, and can socialize well 2. the main competence that must be possessed by a teacher is the ability to utilize technology combined with learning then provide distance learning to be more meaningful and the ability to grow the character and personality of students in participating in digital-based learning, 3. Some teachers interpret professionalism as only carrying out their main task in educating students at school without thinking about developing themselves to face the 4.0 era.

The results of the author's research on teacher self-development in 15 public elementary schools in the Pulogadung sub-district found several different points of view in understanding the meaning of a teacher's self-development, including 1. According to some teachers, the right effort in developing one's self in improving students' critical thinking skills is to give HOTS learning questions and allow students to work on their own, the teacher only sees based on student answers, 2. Some teachers are of the view that critical thinking is not too important for a student, the most important thing is how students can be independent and solve various problems both in learning and in learning. in everyday life in his way, 3. The teacher regrets if a student is passive in communicating and collaborating with fellow friends or with the teacher. A passive student is certain that there is something that causes the student to be passive, but keep in mind that every individual has personal rights that need to be understood and cannot be forced. If a student is passive, then we become a teacher who cannot force a student to follow our wishes, 4. According to some teachers in developing student creativity it is not always in the form of products, but can also be in the form of methods, learning strategies, then innovative is an action to do something. ideas that have been thought of to become real, 5. Contextual learning in the pandemic period is very easy and very important to apply in learning because it can improve students' critical thinking and can add experience in interacting students with the surrounding environment, besides that students become able with their awareness to create ideas and practice their ideas both for themselves, their families, or for the surrounding environment, 6. According to some teachers, the way to get information in the 4.0 era can be

done by following the development of information from various simple digital technology sources such as television, internet rent, smartphone. In utilizing various media to develop oneself, it can be done by understanding the various types of media which are very numerous and then it can be adapted to our own needs, 7. According to some teachers, media abuse is an act that is not wise in using media which should be used properly, especially to support In the implementation of learning, misuse of media is very unfortunate because it can have a bad impact, detrimental to oneself, or others.

Discussion

In the professionalism of a teacher, the main thing that is very attached to a teacher is expertise and talent. However, not everyone can have skills and talents because skills and talents can only be obtained from lineage. Improving skills and talents is an obligation for a teacher because it is very important in developing interesting learning and improving students' abilities because a teacher plays a role in the planning, implementation process, and evaluation of learning so that a teacher needs to innovate, adapt to the times, be creative and innovative.

Having special skills in certain fields, especially those that support the teaching profession, such as using simple technology, developing creative, innovative materials, making and using educational teaching aids, and guiding students to be ready to face the rapid development of the times and technology. In the current state of the COVID-19 pandemic, there is a lot of time for a teacher to add knowledge, skills, and talents from various activities so that they can add experience. Under current circumstances, there are many seminars or training activities related to the world of education or the teaching profession.

Teacher competence is an important aspect that must be improved so that it can keep up with the times, create quality education, can synergize with technology, facilitate students in learning and can realize national education goals, and improve the quality of education Teacher competence is not the main key in improving the quality of education but the most important thing is how to bring students to adapt to learning that is growing rapidly In the 4.0 era the main competency that must be possessed by a teacher is the ability to utilize technology combined with learning then provide distance learning to be more meaningful and the ability to grow the character and personality of students in following digital-based learning. In the 4.0 era, it is difficult for a teacher to have the appropriate competence because the most important thing is how a teacher can adapt first in the industrial era 4.0. The competencies that must be developed in the 4.0 era are 4 competencies that must run continuously because in the 4.0 era a teacher is required to be able to utilize technology in learning so that learning becomes varied, interesting, and meaningful, then can create students' abilities in critical thinking, communicating, collaborating, and make students creative and innovative.

It is not easy for a teacher to develop competence in the 4.0 era because to develop supporting factors, both internal factors that exist within the teacher or external factors that are outside of a teacher In a pandemic period like today technology are very important in learning because learning is done from At home, simple technologies are needed so that they can integrate, communicate with students so that learning continues and make the basis for evaluation to processing students' final grades. students, then the most important thing is how students and parents do not find it difficult to participate in learning. During the current pandemic, it is necessary to socialize and organize activities related to the use of simple technology in every educational unit (school ah-school) so that they can help teachers who are technologically savvy or who are reluctant to develop themselves with such activities, they can introduce simple technology that is useful to ease the task of teachers and also to ensure that no one teacher in each educational unit is left behind.

In self-development there are several indicators, the first indicator is critical thinking. Critical thinking is the ability to think clearly and correctly in the search for relevant and logical knowledge according to reality so that it can produce rational solutions without using emotions and feelings. Efforts

can be made to make students think critically by providing HOTS-based learning materials, then providing steps or techniques in critical thinking and providing opportunities for students to express opinions, or by using student-oriented learning models. Improving critical thinking can also be done by giving HOTS learning questions and allowing students to work on their own, the teacher only sees based on student answers. Critical thinking is very important for students because they can develop the ability to find and use information that is growing rapidly and widely and then analyze the information about its accuracy and can be used as decision-making choices.

In this pandemic period, plus distance learning, it is difficult for a teacher to see a child's ability, especially critical thinking skills because in distance learning many students are assisted by their parents, not even their children who think critically in learning, but their parents who very critical in learning. Maybe all students can think critically, but some children seem to think critically. Communication and collaboration are very important keys to establishing a relationship from various types of interactions that exist in providing or conveying information so that students' creativity can be created as social beings who need each other and can be one way to develop a student's critical thinking.

If students' ability to communicate is not improved, students will "stutter knowledge", making students individualistic and only engrossed in their gadgets. Indeed, communication and collaboration are the main things in today's learning methods so that students can capture or provide information from other people and also so that students can work together in solving learning problems, be creative in thinking, then have the ability to compete with others.

In addition, students must be trained to be more active by using strategies or learning methods that can show students to be creative and innovative. It is unfortunate if there is a lazy student because learning during a pandemic like today makes students experience a decline in knowledge. Many factors cause, both from the factors given by the teacher in learning and other factors that exist in the student's family environment.

Contextual learning is learning that can be used to motivate students to understand learning material with a learning system based on the philosophy that students can absorb lessons if they catch meaning in the academic material they receive, and they capture meaning in school assignments if they can relate information. with the knowledge and experience, they already have in the real world in their daily lives. Contextual learning can help students in critical thinking because later the learning provided to students must have benefits for these students to solve problems, be directed so as not to deviate from the material that should be taught, besides that students become more active. After all, learning is not just theory, but children also understand and can be applied directly in their lives.

Contextual learning in the pandemic period is very easy and very important to apply in learning because, in addition to improving critical thinking, students can also add experience in interacting with students with the surrounding environment, besides that students, become able with their awareness to create ideas and practice their ideas both for themselves, their families. , or for the surrounding environment.

Contextual learning needs and is closely related to the use of various media for self-development, so it can be done by understanding the many types of media which can then be adapted to our own needs which can be used in the preparation, implementation of learning to be more effective and efficient, and can we share or we inform others so that they can use it too, and the most important thing is that we can use various media wisely.

The development of technology, especially media, which is very fast and has a lot of choices, is very helpful for a teacher in planning, implementing, evaluating learning in a pandemic like today because a teacher with conditions full of limitations and circumstances that require teachers with distance

learning students are not present. In one room, as usual, the media is one of the choices that can help a teacher.

With the media, changing an abstract material, it is difficult for students to understand, then it turns into a meaningful material, which can be seen both in the form of audio visualization directly by students, students can look for various types of information needed in independent learning through the media. , and the ultimate goal is to improve understanding of student learning outcomes.

A teacher who cannot use the media properly will make the learning feel more boring because the learning strategies used are not varied, monotonous, and will harm students in the class and can be left far behind.

Conclusion

1. There is a contribution from the expertise and talent of a teacher in building the professionalism of a teacher because with the expertise and talent a teacher can develop interesting learning and improve students' abilities to keep up with the times and technological developments.
2. There is a contribution from the experience and broad knowledge of a teacher in building teacher professionalism, because by having extensive experience and knowledge a teacher can develop creative, innovative materials, create and use educational teaching aids, and guide students to be ready to face developments. very fast era and technology.
3. There is a contribution from the competence of a teacher in building the professionalism of a teacher, because teacher competence is an important aspect in creating quality education, and can synergize with technology.
4. There is a teacher's self-development contribution to the improvement of students' critical thinking, communication, and collaboration in learning because critical thinking is the ability to think clearly and correctly in the search for relevant and logical knowledge according to reality so that it can produce rational solutions without using emotions and feelings. . Then communication and collaboration are very important keys to establishing a relationship from various types of interactions that exist in providing or conveying information so that students' creativity can be created as social beings who need each other.
5. There is a teacher's self-development contribution to contextual learning in increasing creativity, student innovation in learning because contextual learning is learning that can be used to motivate students to understand learning materials with a learning system based on the philosophy that students can absorb lessons and can increase creativity and student innovation during distance learning during the pandemic.
6. There is a teacher's self-development contribution to improving communication and media information literacy in learning, because the development of technology, especially media which is very fast and has a lot of choices, is very helpful for a teacher in planning, implementing, evaluating learning during a pandemic like today. because a teacher with conditions full of limitations and circumstances that require the teacher and distance learning students are not in the same room, as usual, the media is a choice that can help a teacher.

References

- Abdoellah, A.Y., & Yudi, R. (2016). *Teori dan Analisis Kebijakan Publik*. Bandung: Alfabeta.
- Acesta, A., Sumantri, M. S., Fahrurrozi, F., Iasha, V., & Setiawan, B. (2021). Natural Science Learning Module Based on Multiple Intelligences in Elementary Schools. *Psychology and Education Journal*, 58(4), 739–749.

- Ahmadi, Abu dan Widodo Supriyono. (2011). Psikologi Belajar. Jakarta: Rineka Cipta.
- Alwi, Syafarudin. (2011). Manajemen Sumber Daya Manusia. Yogyakarta: Fakultas Ekonomi UGM.
- Anitah, Sri, Julaeha, Siti, dan Wardani, K.A., (2011), Strategi Pembelajaran di SD. Jakarta: Universitas Terbuka, Jakarta
- Aoun, J.E. (2017). Robot-proof: higher education in the age of artificial intelligence. US: MIT Press.
- Bintari, Antik. (2016). Formulasi Kebijakan Pemerintah Tentang Pembentukan Badan Usaha Milik Daerag (BUMD) Perseroan Terbatas (PT) Mass Rapid Transit (MRT) Provinsi DKI Jakarta. Jurnal Ilmu Pemerintahan, 1(1), 223.
- Chasanah, A. (2015). Penilaian Kinerja Keuangan Perusahaan Menggunakan Analisis Rasio Keuangan dan Konsep Economic Value Added (Eva) (Studi Padapt Gudang Garam, Tbk dan Pt Hm Sampoerna, Tbk Yang Terdaftar Di Bursa Efek Indonesia Periode 2011-2013). Jurnal Administrasi Bisnis, 20(2), 23.
- Elisabeth, L. J. (2020). Kebijakan Publik. Malang: CV. Seribu Bintang.
- Fauziah. (2015). Penerapan Model Brain Based Learning dalam Pembelajaran Matematika untuk Meningkatkan Kompetensi Strategi dan Sikap Siswa. Bandung: FKIP UNPAS
- Hamidah, N.S. 2019. "Implementasi Pengembangan Keprofesian Berkelanjutan (PKB) Guru". Tesis. Magister Manajemen Pendidikan Islam Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Syarif Hidayatullah Jakarta.
- Irawan, S., & Iasha, V. (2021). Core Learning Model and Mathematical Disposition, Against Mathematics Problem Solving Ability of Elementary School Students. Buana Pendidikan: Jurnal Fakultas Keguruan Dan Ilmu Pendidikan, 17(2), 122–129.
- Juniarso, T., Azmy, B., Rosidah, C. T., & Setiawan, B. (2020). Pelatihan Penyusunan Proposal Classroom Based Action Research bagi Guru Sekolah Dasar. Jurnal Pengabdian Pada Masyarakat, 5(3), 665–671.
- Karina, R. M., Syafrina, A., & Habibah, S. (2017). Hubungan Antara Minat Belajar Dengan Hasil Belajar Siswa Dalam Mata Pelajaran IPA Pada Kelas V SD Negeri Garot Geuceu Aceh Besar. Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 2(3), 61–77
- Kaswan. (2011). Pelatihan dan Pengembangan untuk Meningkatkan Kinerja SDM. Bandung: Alfabeta
- Koh, L., Guido, O., & Fu (Jeff), J. (2019). International Journal of Operations & Production Management. Journal of Emerald Publishing Limited Vol 39, 817–825.
- Kuliawati. 2018. "Pendidikan Dasar Pada Daerah Tertinggal". Tesis. Magister Pendidikan Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Sunan Kalijaga.
- Makmun, Abin Syamsudin. dan Udin, Syaefudin. (2011). Perencanaan Pendidikan. Bandung: Rosda Karya
- Moleong, L.J. (2017). Metodologi Penelitian Kualitatif Edisi Revisi. Bandung: Remaja Rosdakarya.
- Mulyasa, E. (2013). Implementasi Kurikulum Tingkat Satuan Pendidikan Kemandirian Guru dan Kepala Sekolah. Jakarta: Bumi Aksara.

- Musfah, Jejen. (2016). *Peningkatan Kompetensi Guru, Melalui Pelatihan dan Sumber Belajar Teori dan Praktik*. Jakarta: Kencana.
- Nugroho, R, & H.A.R, Tilaar. (2011). *Kebijakan Pendidikan*. Yogyakarta: Pustaka Pelajar.
- Rachamatika, T., M. Syarif Sumantri, Agung Purwanto, Jatu Wahyu Wicaksono, Alrahmat Arif, & Vina Iasha. (2021). Pengaruh Model Pembelajaran Dan Kemandirian Belajar Terhadap Kemampuan Berpikir Kritis IPA Siswa Kelas V SDN Di Jakarta Timur. *Buana Pendidikan: Jurnal Fakultas Keguruan Dan Ilmu Pendidikan*, 17(1 SE-), 59–69. <https://doi.org/10.36456/bp.vol17.no1.a3162>
- Rida, M. (2013). Hubungan Motivasi Kerja, Masa Kerja, dan Kesejahteraan Guru Terhadap Profesionalisme Guru Sekolah Dasar Negeri Gugus II Kecamatan Sukasada. *E-Jurnal Program Pascasarjana Universitas Pendidikan Ganesha*, Vol 3(5), 3
- Rohman, A. (2011). *Memahami Pendidikan Dan Ilmu Pendidikan*. Yogyakarta: Laks Bang Mediatama.
- Rohmat. 2012. *Pilar Peningkatan Mutu Pendidikan*. Yogyakarta: Cipta Media Aksara.
- Rusdiana, A., & Yeti, H. (2015). *Pendidikan Profesi Keguruan*. Bandung: Pustaka Setia.
- Sanjaya, W. (2012). *Pembelajaran dalam Implementasi Kurikulum Berbasis Kompetensi*. Jakarta: Kencana Prenada Media Group.
- Savitri, A. (2019). *Revolusi Industri 4.0*. Yogyakarta: Genesis.
- Setiawan, B., Apri Irianto, S. H., & Rusminati, S. H. (2021). *DASAR-DASAR PENDIDIKAN: Kajian Teoritis Untuk Mahasiswa PGSD*. CV Pena Persada.
- Sudarwan, D. (2015). *Profesi Kependidikan*. Bandung: Alfabeta.
- Sudjatmiko, B. (2018). *Indonesia 4.0: Berguru Pada Alam Yang Berkembang*. Jakarta: Kongres Kebudayaan Indonesia 2018
- Sudrajat, A., Meiliana Lovienica, & Vina Iasha. (2021). Pengaruh Model Resource Based Learning Terhadap Hasil Belajar Ilmu Pengetahuan Sosial (IPS) Siswa Kelas IV SD Sekolah Dasar. *Buana Pendidikan: Jurnal Fakultas Keguruan Dan Ilmu Pendidikan*, 17(1 SE-), 70–75. <https://doi.org/10.36456/bp.vol17.no1.a3217>
- Suharni, E. 2016. "Kebijakan Kepemimpinan Kepala Sekolah Terhadap Peningkatan Kompetensi Pedagogik dan Kompetensi Kepribadian Guru pada SDN 6 Bukit Tunggul Palangkaraya". Tesis. Magister Manajemen Pendidikan Islam Institut Agama Islam Negeri Palangkaraya
- Sukmadinata, N.S. (2011). *Metode Penelitian Pendidikan*. Bandung: Remaja Rosdakarya
- Sulistyowati, Endah, (2012), *Implementasi Kurikulum Pendidikan Karakter*. Yogyakarta, Citra Aji Parama
- Utomo, G. M., Setiawan, B., Rachmadtullah, R., & Iasha, V. (2021). What Kind of Learning Media do You Want? Need Analysis On Elementary School Online Learning. *Jurnal Basicedu*, 5(5), 4299–4305.
- Taufiqurokhman. (2014). *Kebijakan Publik*. Jakarta: Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Moestopo Beragama Pers.

- Tjandrawinata, R. (2016). Industri 4.0: Revolusi industri abad ini dan pengaruhnya pada bidang kesehatan dan bioteknologi. *Jurnal Medicinus*, 29(5).
- Usman, U. (2017). *Menjadi Guru Profesional*. Bandung: Remaja Rosdakarya.
- Wahyuningsih, D., & Makmur, R. (2017). *E-learning Teori dan Aplikasi*. Bandung: Alfabeta.
- Wahyudiana, E., Sagita, J., Iasha, V., Setiantini, A., & Setiarini, A. (2021). PROBLEM-BASED LEARNING-BASED IPA PRACTICUM MODULE TO IMPROVE PROBLEM-SOLVING ABILITY. *Buana Pendidikan: Jurnal Fakultas Keguruan Dan Ilmu Pendidikan*, 17(2), 161–167.
- Yahya, M. (2018). *Era Industri 4.0: Tantangan dan Peluang Perkembangan Pendidikan Kejuruan Indonesia*. Makasar: Universitas Negeri Makasar.
- Yetti, E., Yufiarti, Pramitasari, M., Suharti, Iasha, V., & Setiawan, B. (2021). The Influence of Dance Instructional Strategy and Teacher's Pedagogy Competence on Classroom Climate. *Elementary Education Online*, 20(1), 642–650. <https://doi.org/10.17051/ilkonline.2021.01.54>
- Yustitia, V., Fanny, A. M., Kusmaharti, D., & Setiawan, B. (2021). Aplikasi Pembelajaran Tematik Berbasis TIK: PPM Bagi Guru SD Hang Tuah X Sedati. *Manggali*; Vol 1 No 2 (2021): ManggaliDO - 10.31331/Manggali.V1i2.1692 . <http://e-journal.ivet.ac.id/index.php/manggali/article/view/1692>
- Zulkifli, Arif. (2014). *Dasar-dasar Ilmu Lingkungan*. Jakarta: Salemba Teknika.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).