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SCHOOL'S STRATEGY FOR TEACHER'S PROFESSIONALISM THROUGH DIGITAL LITERACY IN THE INDUSTRIAL REVOLUTION 4.0

Desi Agustini¹, Bukman Lian², Artanti Puspita Sari³

¹SD Neger 6 Pulau Rimau, ^{2,3}Universitasn PGRI Palembang Email: desiagustini415@gmail.com

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Abstract: This research aimed at describing school's strategy in increasing the professionalism of Primary School teachers through Digital Literacy. This research was conducted at SD Negeri 6 Pulau Rimau, Banyuasin. The method was descriptive qualitative. Data collection techniques using interviews, observation, and documentation. The results of the study approved the Principal's strategy and the role of the teacher to improve teacher's professionalism through digital literacy run effectively. Some of the strategies used by principals include completing facilities and targets that can support digital literacy, strengthening literacy through e-Learning, school strategies by sending teachers and education personnel to get seminars, training, or technical assistance and helping Teacher Working Groups or Groups Principal's Work. Teacher strategies in increasing professionalism by implementing four teacher competencies, pedagogical, personal, social, and profesional competence through digital literacy.

Keywords: School's Strategy, Teacher's Professionalism, Digital Literacy

1. Introduction

The Industrial Revolution 4.0 not only uses intelligent machines or systems but waves of breakthroughs in various fields, gene sequencing to nanotechnology, from renewable energy to quantum computing, (Schwab, 2017; Marvanti et al. 2020; Tobari et al, 2018). The digital revolution is another term for Industry 4.0 because of the proliferation of computers and the automation of records in all fields. Currently the education sector also feels the impact of digital transformation. The impact digital transformation is in utilizing and processing data, applying it in technology and having to understand the use of technology (Kristiawan and Muhaimin, 2019). Wihadanto (2017) argues that human activities in the Industrial Revolution Era 4.0 have been converted from manual to digital.

Also based on the results of the International Education Symposium 4.0 for Indonesia in Bali known as the International Symposium on Open, Distance and E-Learning (ISODEL) 2018 organized by the

Ministry of Education and Culture produced 22 conclusions and 20 recommendations for realizing "Education 4.0 for Indonesia" delivered by the Head of the Center for Information and Communication Technology Education and Culture (Kapustekkom), Ministry of Education and Culture, Gogot Suharwoto (06 December 2018).

As for one of the conclusions produced in the ISODEL event, it is expected that both teachers and students must be digital, technology literate, including involving the role of the community, and parents universal education and also for recommendations produced in the implementation of ISODEL, explaining that for teachers consists of increasing competence in accordance with standards, especially in digital literacv for e-learning, administration, and e-career; Active in the teacher community through Teacher Working Groups (KKG), Subject Deliberations (MGMP), or teacher association; improve skills in choosing ICT models, methodologies, and learning that

appropriate to the level of student growth (Kristiawan, 2014).

This has been regulated in the Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers that teachers must have four competencies including pedagogic, personality, social, and professional obtained through professional education. Therefore, one of the strategies that can be done to improve professionalism of teachers is that teachers are introduced to digital literacy (Wandasari et al, 2019). The issue of the quality of education is not only a problem for Indonesia, as said by the Assistant Director General for Education from The United **Nations** Educational, Scientific and Cultural

Organization (UNESCO), Qiang Tang, in launching the 2016 Global Education Monitoring (GEM) Report in Jakarta, (6 / 9) that "the gap in the quality of education is still an obstacle in many countries, especially Indonesia". The world of education in Indonesia still has many obstacles related to quality. In addition, based on the Indonesian Education Development Index, Indonesia is ranked 5th after Thailand with an index of 0.603 ranked 108th in the world (Report 2016, in Jakarta, Tuesday, September 6, 2016). Many factors cause the poor quality of education in Indonesia. The following is the ranking of the 2017 ASEAN countries' education rankings obtained from Deutsche Welle Media in table 1.

Table 1. 2017 ASEAN Countries' Education Ranking (SOS BUD Deutsche Welle)

No	Nama	Skor	Keterangan
	Negara ASEAN	(EDI)	
1	Singapura	0,768	in the UNESCO education index. Recorded years
			2013 only 1.3% of school students failed completing education.
2	Brunei Darussalam	0,692	Ranking 30th in the world.
3	Malaysia	0,671	Ranking 62nd in the world on the list the best education in the world and the 3rd in ASEAN
4	Thailand	0,608	Has the highest education budget, viz amounting to 7.6% of Bruto. Domestic products
5	Indonesia	0,603	occupies the 89th position in the world. Ranked 108th position in the world. Generally
6	Filipina	0,610	under Palestine, and Mongolia. 44% educated population and 11% student out of school. Ranked 117th in the world, but 64%
			residents at least complete education intermediate. Student failure level completes education as much as 24.2%
7	Vietnam	0,513	Ranking 121 in the world is lower than
			Iraq and Syria with a population literacy rate adults by 93.5%
8	Kamboja	0,495	Ranking 136th in the world. Level

			student failure of 35%, only 15.5% received secondary level education.
0			72.7% at least 40% of the population has never
9	Laos	-	been
			taste formal and occupy education
			order of 139 in the world
10	Myanmar	0,371	Ranked 150th in the world, only 19%
			Myanmar residents who have tasted it
			middle level education.

This can be caused by, among others, the limited access to education, the number of teachers who have not been evenly distributed, as well as the quality of teachers who are judged to be lacking and educational facilities and infrastructure.

From the opinion of the experts, the headmaster needs to prepare a special strategy in improving the quality of his education, namely the teacher, because indeed one of the determining factors for the quality of the teacher is how the headmaster is able to manage the human resources in the school he leads (Irmayani et al, 2018; Apriana et al, 2019; Tobari et al, 2018). If teacher quality is seen as a substance, improving teacher quality must be focused on two things, 1) improving the quality of teachers in a socio-cultural and economic manner, 2) increasing teacher professionalism through an integrated, holistic program in accordance with the results of a clear teacher quality mapping and teacher's mastery of information technology and the latest learning methods (Mulyasa, 2007). This quality improvement must be carried out continuously by the principal considering the rapid development of science and technology (Wandasari et al, 2019; Fitria et al, 2017; Fitria, 2018; Sarina et al, 2019; Khasanah et al, 2019).

One indicator of an ideal teacher is to have digital competence (Farid, 2017). Besides teachers who are able to answer the challenges of the times are those who are literate in technology, information and computers (ICT), digital literacy, and also

master the technology theoretically and practically. One study of digital literacy was carried out by Murray and Perez (2014) based on the results of a digital literacy assessment conducted on final year students at regional universities in the United States, stating that the understanding of digital literacy cannot be compared to the level of exposure and interaction of students with technology digital on a daily basis, digital literacy assessment results show that only 12% of students are able to answer about 80% of answers correctly.

According to Murray and Perez (2014) this shows that although basically students have often interacted with digital technology, it does not mean they have a good understanding of digital literacy, so it is necessary to develop strategies to improve digital literacy for students who are coherent, inclusive and holistic (Nurjana et al., 2017). As stated by research before researchers, the results of research from Irmayani (2018) are to investigate deeply about 1) the school's strategy in improving the quality of educators and education staff; 2) school strategy in the quality of facilities and infrastructure; and 3) school strategy in the quality of education management in Palembang Pusri Elementary School. There are several studies that have been conducted with a focus on digital literacy and the use of ICT (Information, Communication and Technology) in the world of education, especially regarding the use of e-learning. Yazdi writes articles about elearning as information technology-based

interactive learning media. The results show that the final product of e-learning learning is expected to be an information technologybased learning application (Yazdi, 2012). Research on e-learning has also been carried out by Chandrawati on the use of e-learning in learning. The results show that the development of e-learning has three possibilities in internet-based learning systems, namely web courses, webcentric and web enhanced courses courses, (Chandrawati, 2010). In addition, Afandi, Junianto, and Afriani wrote a scientific article about literacy in the digital age (Afandi et al., 2016).

The conclusion in the article explains that referring to documents published by EnGauge 21stcentury skill there are 4 main domains, one of which is the Digital-Age Literacy domain which consists, from eight aspects, namely basic, scientific, information, visual, technology, and multicultural literacy alobal awareness. Other studies conducted by Wijaya, Sudjimat, and Nyoto (2016). Researchers are trying to explore 21st century competencies needed by industry and the world of work. The results showed that 21st century skills needed in the business and industrial world were: (1) skills and learning to innovate; (2) life and career; and (3) technology and information media skills (Wijaya, Sudjimat, & Nyoto, 2016).

According to Wijayanti (2017) teachers must understand the three key points of educational progress, namely competence, character, and literacy because through these three things, education in Indonesia will skyrocket. According Mulyasa (2013) strategy is a systematic and coordinated effort to continuously improve service quality, so that the focus is directed to customers in this case students, parents of students, users of graduates, teachers, employees, community and government. Another understanding of Strategy according to Argyris, Mintzberg, Steiner and Miner is a continuous and adaptive response to external opportunities and threats as well as internal

strengths and weaknesses that can affect the organization (Rangkuti, 2014). According to Hunger and Lwheelen (2003), strategy in organizations formulation is а comprehensive planning on how the organization will achieve its mission and objectives. Strategy will maximize competitive advantage and minimize competitive limitations. Strategy is a way or approach taken in assessing the quality of the process (process quality) and the quality of the results (product quality) in the organization (Fattah, 2012). Suhardan (2010) states that strategy is a joint means with long-term goals to be achieved. Based on some of the above understanding the author can conclude that the strategy is a method or approach that is planned in detail and in detail in the form of tactics or tactics operationally through measured steps to achieve the expected goals.

According to Kristiawan (2017: 32) elementary school is a social organization that has set goals. By providing quality education to students in schools is the main goal of primary schools. Permendikbud No 6 of 2019 explains that primary school is a form of formal education unit that organizes general education at the basic education level. In carrying out these functions the principal has a dual responsibility of carrying out school management so as to create an effective and efficient teaching and learning situation as well as carrying out supervision so that the teacher is better and more perfect in carrying teaching tasks (Mukhneri, According to Mulyasa (2011) in subsequent developments, based on community needs and the development of the times in the new paradigm of education management, the principal must at least be able to function as educator. manager, administrator, supervisor, leader, innovator, motivator, figure, and mediator.

The elementary school strategy that can be done to improve teacher professionalism through strengthening digital literacy by using e-learning methods, fulfillment of facilities and infrastructure, as well as improving the quality of educators and education staff. According to Susanti & Sholeh (2008: 53-57) argues that e-learning is a learning system that is adapted from existing systems in conventional educational institutions into a digital system via the internet. Likewise, according to Chandrawati (2010: 172-181) that e-learning in learning functions as a supplement that is optional, complementary, or substitution. So to add information both teachers and students not only through books but also can use electronic media such as the internet via google, youtube, chorme. Everyone can create, access, use and share or share information, and knowledge, with the consequence that everyone must be able to face and master information correctly (Sukaesih and Rohman, 2013: 62). The first digital literacy criterion is use skill. Use skill is an expertise in media access and operation activities. Use skills have three criteria, namely expertise in the use of media in a standard (low), active expertise in the use of media, and high expertise in using and utilizing media. Skill indicators or use skills, especially in the use of computers and internet access consisting of computer; ownership of social media accounts and email; frequently visited sites; download and upload (Setyaningsih, et al: 2019).

So it can be concluded that in the elearning learning developed there is material content, quiz questions, and also a forum as a medium of discussion between teachers and students. According to Kristiawan (2017: 98) are all facilities needed in the teaching and learning process, both mobile and non-mobile so that the achievement of educational goals runs smoothly, regularly, effectively, and efficiently. While infrastructure according to Kristiawan (2017: 98) is all basic equipment or facilities that indirectly support the course of the process of education or teaching such as, school grounds, parks and gardens. Infrastructure is a public facility that is located at the location of the activity. So, the facilities and infrastructure are mutually

needed for the continuity of activities in the place. According to Syaodih in Rustam (2018: 16) states that learning facilities are all that is needed in the teaching and learning process both mobile and non-movable to achieve educational goals running smoothly, orderly, effectively and efficiently.

From some expert opinions, it can be concluded that all learning infrastructure is a facility needed for students to achieve learning goals through learning activities in the form of inquiry and discovery to get an understanding of the problems being studied. From the results of an interview with Ms. Lintinah (Wednesday, April 24, 2019) to improve teacher professionalism, SDN 9 Pulau Rimau schools have Antennas along with the strengthening of the HUAWEII brand WIFI network which is a signal amplifier to get the internet because the coverage for the Pulau Rimau district for the internet is rather difficult. In addition, schools also provide 2 laptops for teachers, all of which are charged with BOS funds. In addition, almost all teachers have a personal laptop as a tool for storing and processing data.

At this time the teacher is challenged to accelerate the development of information communication. Learning classroom and classroom management, in this century must be adapted to the standard advances in information and communication technology (Lince, 2016: 169). According to Susanto in Lince (2016: 169) there are 7 teacher challenges in the 21st century including 1) teaching in multicultural society; 2) teaching for the construction of meaning: 3) teaching for active learning; 4) teaching and technology; 5) teaching with new view about abilities; 6) teaching and choice; and 7) teaching and accountability. Facing these challenges, teacher professional competence must be improved. Types of teacher professional competency development programs are developing teachers in the mastery of ICT, the use of English and Indonesian, applying learning methods and mastery of the material. Activities carried out by holding workshops using web-based learning online. The program is held at least once a semester, in schools (In House Training). Some ways can be done to improve the professional competence of teachers so that it can be implicated, among others, by undergoing further studies in the strata program, courses and training, the use of journals and seminars (Sagala, 2009: 27). Then according to Fahrudin (2015) stated that the development.

Teacher professionals can be done in forms such as; 1) skill development and improvement (teaching ability); 2) organizational development and improvement; and 3) personality development and improvement (achievement motivation). Mukhtar (2015) also states that school principals can facilitate and provide broad opportunities for teachers to carry out professional development activities through education and training activities, both at school or outside school activities. The training carried out aims to raise the performance of teachers who have experienced a decline (Akbar, Reza, and Tobari, 2016).

So it can be concluded that the school strategy that can be done so that teachers increase professionalism, namely; the teacher is given the opportunity to attend training or courses on computers with the aim that the teacher is more familiar with the information or data available on the computer; join the Teacher Working Group (KKG) in order to add insight into digital literacy. Digital literacy according to Gilster is the ability to understand and use information in a variety of formats that originate from various digital sources that are displayed through a computer (Belshaw, 2011). Lankshear and Knobel in Martin (2006: 155) suggested the definition of digital literacy is the awareness, attitudes and abilities of individuals to be able to use digital equipment and facilities appropriately to identify, access, manage, integrate, evaluate, analyze, synthesize digital sources, build new knowledge, making media

of expression, and communicating with others in certain life contexts to enable constructive social action and reflect all of these processes.

Hague, Dani, and Payton (2010) also assert that digital literacy is the ability to create and share in different modes and forms: to create, collaborate and communicate more effectively, understand how and when to use good digital technology to support the process. The basic digital literacy skills referred to consist of basic literacy skills which include the ability to read, write, understand symbols to represent language and perform numerical calculations, and basic computer literacy skills that include the ability to use computer hardware and software. Digital literacy is an effort to know, to search, to understand, to analyze, and to technology. digital Beetham, use Littlejohndan McGill mentioned there are seven elements of digital literacy (JISC, 2017). The seven elements of digital literacy include: (1) Information literacy is the ability to search, evaluate and use information needed effectively (Hasugian, 2008), (2) Digitalscholarship is an element that includes the active participation of digital media users in academic activities to make information from digital media as a data reference, for example in research practices or completion of college assignments (Stefani, 2017), (3) Learning skills are effective learning of various technologies that have full features for formal and informal learning activities, (4) ICT literacy or it is called information technology literacy and communication that focuses on ways to adopt, adapt and use digital devices and ICT-based media both applications and services. ICT-based media in question such as computer а projector/power point LCD that has been designed in such a way, in such a way that it can be utilized in accordance with its understanding, let alone already connected to the internet as a basis for learning (Budhirianto, 2016), (5) Career and identy management related to ways of managing

online identity. A person's identity can be represented by a number of different avatars capable of engaging with more than one party at almost the same time (Damayanti, Maria Nala; Yuwono, 2013), Communication and collaboration is a form of active participation for learning and research through digital networks, and (7) Media literacy includes the critical reading and creative abilities of academic and professional communication in a variety of media. The existence of media literacy makes audiences not easily deluded by information that at a glance meets and satisfies their psychological and social needs (Rianto, 2016). Gilster explained that in addition to the art of critical thinking, the competencies needed learning how to organize knowledge, and building a reliable set of information from several different sources. A person with digital titration needs to develop the ability to search for and develop a strategy for using search engine to search for available information and how to find information that suits their information needs (A'yuni, 2015).

The relevant research was conducted by Setyaningsih, Abdullah, Prihantoro, Hustinawaty (2019). This study was entitled The Model of Digital Literacy Strengthening through E-Learning with the aim of finding a model of strengthening digital literacy at Darussalam Gontor University. This study found a model of strengthening digital literacy through the use of e-learning. This model includes elements of communication and collaboration in the form of active learning participation in and research activities. It consists of individual competency components in the form of usage skills, critical understanding, and communicative abilities. This research is similar to the research that researchers have contributed to the strengthening of digital literacy models through the use of e-learning and the methods used are also qualitative. The difference with this research is that this research was carried out at Darussalam **University Gontor**

In addition, research on digital literacy was conducted by Murray and Perez (2014) with the title Unraveling the digital literacy paradox: How higher education fails at the fourth literacy, Issues in Informing Science and Technology based on the results of digital literacy assessment conducted on final year students at universities regional in the United States, states that the understanding of digital literacy cannot be compared to the level of exposure and interaction of students with digital technology on a daily basis, the results of digital literacy assessment show that only 12% of students are able to answer about 80% of answers correctly. This shows that although basically students have often interacted with digital technology, it does not mean they have a good understanding of digital literacy, the development of strategies to improve digital literacy for students who are coherent, inclusive and holistic. Equations with research that researchers make together want to know the interaction of students with digital technology. The difference with the research that the researchers made was the implementation carried out at the Regional University of the United States and the development of strategies for increasing digital literacy for students who are coherent, inclusive and holistic. Research by Irmavani (2018) on Strategies of Pusri Elementary Schools in Improving Education Quality.

From this study, it can be concluded that the results obtained in this study indicate that the Pusri Elementary School's strategy in improving the quality of educators and education personnel through routine supervision of school principals, delegation of training, upgrading, authority, seminars, technical to quidance, the need workshops, and education and training, and evaluating the performance of educators and education staff that are balanced with rewards. The similarities with this research use together to facilities infrastructure, training and seminars for teachers to improve the quality of education. The difference is where the location of the

study is and the strategies that the principal conducts.

2. Research Method

This research was conducted at SD Negeri 6 Pulau Rimau, Pulau Rimau District, Banyuasin Regency. This school was chosen as a research site because SD Negeri 6 Pulau Rimau, Pulau Rimau District, Banyuasin Regency. The research was conducted in September 2019 until December 2019, covering the activities of preparation, data collection, data analysis up to making a research report. This study uses descriptive qualitative methods. According to Lincoln and Guba in Moleong (2011: 6) suggested that there are ten characteristics of qualitative research, namely; 1) carried out on a scientific setting, 2) humans as instruments, 3) qualitative methods, 4) inductive data analysis, 5) the direction of the preparation of theories derived from the ground (ground theory), 6) are descriptive, 7) prioritize the process rather than the results, 8) requires the establishment of focus limits, 9) the existence of specific criteria for data validity, 10) the design is temporary.

According to Sugiyono (2013: 21-22) qualitative research has characteristics, namely: a) conducted in natural conditions, (as opposed to being an experiment), directly to the data source and the researcher is a key instrument; b) qualitative research is more descriptive. Data in the form of words or pictures, so that it does not emphasize numbers; c) qualitative research places more emphasis on process rather than product or outcome; d) qualitative research emphasizes more meaning (the data behind what is observed); e) qualitative research conduct data analysis inductively. With this research the researcher tried to explain the object of research namely the school's strategy in increasing teacher professionalism through digital literacy.

Data collection techniques are the most strategic step in research, because the main purpose of research is to get data (Sugiyono, 2010: 15). Data collection techniques used by researchers in the framework of this study are observations made directly in the places and objects that are observed, namely SDN 6 Pulau Rimau, interviews, documentation. Data analysis techniques used in this study include reduction, data presentation conclusion drawing. The data that has been obtained will be processed using qualitative research, then domain analysis to obtain a general and overall picture of the research object through the process of data reduction, display and verification (Miles and Huberman, 1992: 16-21). The data analysis process is carried out by researchers on an ongoing basis. This is done by researchers in triangulation including observational data, interviews and study documents that are interrelated with one another.

3. Results and Discussion

School Strategies in Maximizing the Use of Facilities and Infrastructure to Support Digital Literacy

Through interviews with Ms. Lintinah, S.Pd. SD (October 7, 2019) in table 4.1 SDN 6 Pulau Rimau has standard facilities and infrastructure. In addition to internet activities, he stated that he had bought a signal catcher or WIFI so that activities that were online could be done well at school. At present all administrative activities are carried out online, such as filling in DAPODIK, filling BOS Funds (School Operational Agencies) whose applications are called SIAP BOS or known as BOSTAN. Nur Habibi said that the School operator (interview result on October 7, 2019) for filling DAPODIK or BOSTAN before having WIFI was forced to have to have areas that had towers or good signals. It has only been the last 1 year of purchasing WIFs and antennas through BOS funds.

In addition the school also provides 2 laptops for teachers and operators. According to the principal, every teacher has their own laptop, only 1 person does not have a laptop because there is no cost to buy it. According

to Ms. Lintinah to support learning activities planned purchase of infocus with the aim that all students can learn the lessons given by the teacher through a laptop. In addition, all teachers can do school administration through their laptops starting from the RPP, Semester Program, Annual Program, Syllabus and assessment.

In addition, according to Ibu Lintinah, SDN 6 Pulau Rimau, she has a school library. The library of SDN 6 Pulau Rimau was established in 2010 with an area of 8 meters x 7 meters. Currently the librarian or librarian is Mr. Amin Panopo, S. Pd. From the interviews of Mr. Amin as a librarian (interview on October 8, 2019) the library building has many books, both textbooks, enrichment books or reference books. The number of books in the library is around 1000 reference books and 700 enrichment books. In addition, Mr. Amin added that in the library building besides books there were also KIT teaching aids from Mathematics, Natural Social Sciences, Sciences, Indonesian Language, Islamic Religious Education. The kit is equipped with a user manual and a Compag Disc (CD) so that both students and teachers can use the KIT props correctly. In addition to the KIT teaching aids in the library, there is also a room for librarians in which there are computers and printers. Everything in the library can be used by students through supervision from teachers and librarians. Every child can borrow books there as much as fruit in a period of one week and then returned. The school library is very helpful for students and teachers in finding information and knowledge.

School Strategies in Strengthening Digital Literacy through E-Learning

The results of an interview with Mr. Jonet Sutanto (October 10, 2019) currently the use of digital is very necessary because in addition to making administration also assessments for students using an application called e-rapot. So we as teachers no longer need to fill in the report cards because we

only need to enter numbers, then all descriptions about students will appear. In addition, with the presence of computer or laptop technology and Android cellphone according to Mr. Ismail (11 October 2019), learning is easier. Children are more interested and more focused in the lessons they are given. If we want to find out more information, Mr. Ismail said, we can search the internet through the Google, Chrome or YouTube applications. For now according to Mrs. Lintinah, S.Pd. Primary schools which become obstacles in the implementation of digital learning or e-learning are cost limitations and also because of internet signals.

School Strategies to Improve Teacher Competence in Efforts to Improve Teacher Professionalism through Digital Literacy

One of the school's strategies to improve the quality of educators according to Ms. Lintinah, S.Pd. Elementary school is by participating in various training, conducted by the Department of Education conducted by the private sector (Interview with the Principal, 7 October 2019). This was also confirmed by an interview with Mrs. Istikomah, S.Pd.SD (Wednesday, October 9, 2019), according to him, quality schools are schools that have competent and competitive teachers, are able to make students become smart, and are able to compete with other schools and the school output is accepted in schools that are wanted by students. The training directs teachers and principals to have competencies that must be possessed. Teachers who participate in training activities form small KKG teams in schools to make products in the form of learning administration and e-rapot filling. The results of the workshop in the form of learning tools will be supervised by the School Principal (Interview Results with the School Principal, 9 October 2019).

From the results of interviews with the school principal, the Curriculum 13 training

was conducted in 2017 organized by LPMP. Teachers sent from each sub-district will conduct training for one week and then followed up with in and on at the designated primary school for one month. In terms of technology usage, based on the results of interviews with the Principal (7 October 2019), educators and education staff at SDN6 Pulau Rimau, especially teachers who are relatively young have the ability to use computers or laptops, then with the technology's ability, it becomes one school excellence in terms of improving quality in the field technology for educators. of Furthermore, according to the Principal (Interview Results, 7 October 2019), teachers must also be able to use computer technology to support the learning process. To be more effective and efficient. In addition education staff who are able to use computers as a means to facilitate work, teachers must also be able to use laptops. This is due to e-rapot charging using an application on a laptop. The Principal said (Interview Results, 7 October 2019). The senior teachers are still encouraged to be able to use computer technology, if the difficulties experienced by senior teachers in using applications on a laptop or computer, they will ask questions and ask for help with younger teachers. It also said that as teachers, they must realize that the demands of technology cannot be separated from science.

4. Conclusion

The management strategy of SDN 6 Rimau School in improving the ability of Teacher Digital Literacy in the Industrial Revolution 4.0 era by; a). maximizing the use of facilities and infrastructure to support Digital Literacy such as the purchase of antennas and wifi, providing technological equipment such as laptops, the availability of various books and alt KIT displays in the library building; b) carry out strengthening of digital literacy in the form of continuing literacy programs that are already running,

implementing strengthening of e-learning by using online media to find information to increase knowledge. c) increasing teacher competence in an effort to improve teacher professionalism through digital literacy such as attending various trainings, both those carried out by the Education Office and those carried out by the private sector, can have an impact both on the school and the teacher itself. The school principal and teacher of SDN 6Pulau Rimau have participated in various training and technical guidance, as well as seminars.

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References

Afandi., Junanto, T., & Afriani, R. (2016). Implementasi *Digital- Age Literacy* dalam Pendidikan Abad 21 di Indonesia [Implementation of Digital-Age Literacy in 21st Century Education in Indonesia]. *In Prosiding Seminar Nasional Pendidikan Sains.*

Akbar, Reza, A., & Tobari. (2016). Pengembangan Sumber Daya Manusia sebagai Salah Satu Faktor Penentu dalam Meningkatkan Mutu Pendidikan [Human Resource Development as One of the Determining Factors in Improving the Quality of Education]. Prosiding Seminar Pendidikan Program Pasca Sarjana PGRI (hal. 504-514). Palembang: Universitas PGRI.

Apriana, D., Kristiawan, M., & Wardiah, D. (2019). Headmaster's Competency In Preparing Vocational School Students

- For Entrepreneurship. *International Journal of Scientific & Technology Research*, 8(8).
- Argyris, C. (1985). Strategy Change and Defensive Routines, Pitman Publishing.
 Marshfield: Massachussetts.
- A'Yuni, Q. Q. (2015). *Literasi Digital Remaja Di Kota Surabaya* [*Digital Literacy of Youth in the City of Surabaya*]. http://juornal.unair.ac.id.
- Belshaw. (2011). What It "Digital Literacy"?

 Durham University: United Kingdom.
- Budhirianto, S. (2016). Model Pemberdayaan Relawan TIK Dalam Meningkatkan E-Literasi Masyarakat di Sukabumi [The Model of ICT Volunteer Empowerment in Increasing Community Literacy in Sukabumi]. *Jurnal Penelitian Pos dan Informatika 6 (1)*, 19-36.
- Burkhardt, G., Mounsour, M., Valdez, G., Gunn, C., Dawson, M., & Lemke, C. (2003). *Engauge 21st Century Skills: Literacy in The Digital Age.* North Central Regional Educational:
 Laboratory and The Meitri Group.
- Candrawati, S. R. (2010). Pemanfaatan E-Learning Dalam Pembelajaran [Utilization of E-Learning]. *Jurnal Cakrawala Kependidikan 8 (2),* 172-181.
- Damayanti, T., Nala, M., & Yuwono, E. (2013). Avatar Identitas dalam Cyberspace [Identity Avatar in Cyberspace]. *Jurnal Desain Komunikasi Visual Nirwana 15 (1)*, 13-18.
- Farid, A. (2017). Guru SD di Era Digital (Pendekatan, Media, Inovasi) [Elementary Teachers in the Digital Age (Approach, Media, Innovation)].
 Semarang: CV. Pilar Nusantara.
- Fahrudin, (2015) Peningkatan Kinerja Dan Pengembangan Profesionalitas GuruSebagai Upaya Peningkatan Mutu Pendidikan Di Indonesia [Teacher Performance Improvement and Professional Development As an Effort to Improve the Quality of Education in

- Indonesia]. ProsidingSeminar Nasional Pendidikan Ekonomi & Bisnis. Fakultas Keguruan dan Ilmu Pendidikan Universitas Sebelas Maret Surakarta.
- Fattah, N. (2012). Pendidikan Bermutu dan Berbudaya Saing [Quality and Competitive Education]. Bandung: PT. Remaja Rosda Karya.
- Fitria, H. (2018). The Influence Of Organizational Culture And Trust Through The Teacher Performance In The Private Secondary School In Palembang. International Journal of Scientific & Technology Research, 7(7).
- Fitria, H., Mukhtar, M., & Akbar, M. (2017).

 The Effect of Organizational Structure
 And Leadership Style on Teacher
 Performance In Private Secondary
 School. *IJHCM* (International Journal
 of Human Capital
 Management), 1(02), 101-112.
- Hague., Dani, C., & Payton, S. (2010). "
 Digital Literacy Acroos The
 Curriculum: A Futurelab Handbook.
 United Kingdom" dalam https://
 www.nfer.ac.uk/publication.FUTL06/F
 UTL 06.pdf, diakses pada 18 April
 2019
- (2008).Uraensi Hasugian, J. Literasi Informasi dalam Kurikulum Berbasis Kompetensi di Perguruan Tinaai [Urgency of Information Literacy in Competency Based Curriculum in Education]. Higher Jurnal Studi Perpustakaan dan Informasi 4 (2), 34-
- Hunger, D., & Lwheelen, T. (2003).

 **Managemen Strategi [Strategy Management]. Yogyakarta: Andi Utama.
- Indah, K., Abdullah.,Prihantono., Hustinawati (2019) Upaya Peningkatan Kemampuan Literasi Digital bagi Tenaga Perpustakaan Sekolah dan guru di Wilayah Jakarta Pusat Melalui Pelatihan Literasi Informasi [Efforts to Increase Digital Literacy Capabilities

- for School Library Staff and Teachers in Central Jakarta Region Through Information Literacy Training]. Jurnal JPKM. 3(1).
- Irmayani, H., Wardiah, D., & Kristiawan, M. (2018). The Strategy of SD Pusri In Improving Educational Quality.

 International Journal of Scientific & Technology Research, 7(7).
- JISC. (2017). Developing digital literacies. Jisc Khasanah, U., Kristiawan, M., & Tobari. (2019). The Implementation of Principals' Academic Supervision In Improving Teachers' Professionalism in the State Primary Schools.

 International Journal of Scientific & Technology Research, 8(8).
- Kementerian Pendidikan Dan Kebudayaan. (6
 Desember 2018).Pendidikan 4.0 Untuk
 Indonesia [Education 4.0 for
 Indonesia]. International
 Symposiumon Open, Distance, and ELearning (ISODEL).
- Kristiawan, M., Safitri, D., & Rena, L. (2017). *Manajemen Pendidikan [Education Management].*Yogyakarta:
 Deepublish.
- Kristiawan, M. (2014). A Model for Upgrading Teachers Competence on Operating Computer as Assistant of Instruction. Global Journal of Human-Social Science Research.
- Kristiawan, M., & Muhaimin, M. (2019). Teachers' Obstacles In Utilizing Information and Communication Technology. *International Journal of Educational Review*, 1(2), 56-61.
- Lankshear, C., & Knobel, M. (2008). *Digital Literacies Concepts, polities, and Practicies.* New York: Peter Lang.
- Lince, R. (2016). Strategi Peningkatan Profesionalisme Guru dalam Menghadapi Tantangan di Era Digital [Strategies for Improving Teacher Professionalism in Facing Challenges in the Digital Age]. *Prosiding Temu Ilmiah Nasional Guru (TING)*.

- Universitas Tebuka: Convention Center.
- Martin, A. (2006) "Literacies for age Digital Age" dalam Martin&D. Madigan (eds) Digital Literacies for Learning. London. Facet.
- Maryanti, N., Rohana, R., & Kristiawan, M. (2020). The Principal's Strategy In Preparing Students Ready To Face the Industrial Revolution 4.0. *International Journal of Educational Review*, *2*(1), 54-69.
- Miles and Huberman. (1992). *Qualitative Data Analysis.* Jakarta: Universitas
 Indonesia.
- Mintzberg, H. (1979). Structure in five, Designing Effective Organizations. Prantice, Hall: New Jersey.
- Moloeng. (2011). *Metodologi Penelitian Kualitatif [Qualitative Research Methodology].* Bandung: Remaja Karya.
- Moloeng, L. (2007). *Metodologi Penelitian Kualitatif [Qualitative Research Methodology].* Bandung: PT Remaja Rosda Karya.
- Mukhtar. (2015). Strategi Kepala Sekolah dalam Meningkatkan Kinerja Guru di Aceh [Principal's Strategy in Improving Teacher Performance in Aceh]. *Jurnal Magister Administrasi Pendidikan Universitas Syiah Kuala 3(3)*.
- Mulyasa, E. (2013). *Manajemen Kepemimpinan Kepala Sekolah [Principal's Leadership Management].*Jakarta: Bumi Aksara.
- Mulyasa, E. (2011). Menjadi Kepala Sekolah Profesional [Become a Professional Principal]. Bandung: PT. Remaja Rosdakarya
- Mulyasa, E. (2007). *Menjadi Guru Profesional* [Become a Professional Teacher]. Bandung: Remaja Rosda Karya.
- Mulyasa, E. (2007). Standar Kompetensi dan Sertifikasi Guru [Teacher Competency Standards and Certification]. Bandung: PT. Remaja Rosda Karya.

- Mukhneri. (2003). *Kepemimpinan Pendidikan [Educational Leadership]*. Jakarta. BPJM UNJ.
- Murray, M. C., & Perez, J. (2014). Unreveling the Digital Literacy Paradox: how Heigher educational Fails At The Fourth Literacy, Issues in Informing Science And Technology. *Jurnal Technology Vol* 11, 85-100.
- Murniyati. (2019). Pengaruh Kepemimpinan Kepala Sekolah Dan Motivasi Kerja Terhadap Kinerja Guru Sma PGRI di Kota Palembang [Effect of Principal Leadership and Work Motivation on the Performance of PGRI High School Teachers in Palembang City]. Thesis: Management of Education. Universitas PGRI Palembang.
- Nurjanah, Ervina., Rusmana, A., & Yanto, &.
 A. (2017). Hubungan Literasi Digital dengan Kualitas Penggunaan E-Resources [Relationship of Digital Literacy with Quality of Use of E-Resources]. Lentera Pustaka 3 (2), 117-140.
- Permendikbud Number 6 of 2019
- Rangkuti, F. (2014). *Analisis SWOT : Tehnik Membedah Kasus Bisnis [SWOT Analysis: Techniques for Dissecting Business Cases].* Jakarta: PT. Gramedia Pustaka Utama.
- Rianto, P. (2016). Media Baru, Visi Khalayak Aktif dan Urgensi Literasi Media [New Media, Active Audience Vision and the Urgency of Media Literacy]. *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia 1 (2)*, 90-96.
- Rustam. (2018).Pengaruh Manajemen Prasarana Sarana dan terhadap Kepuasan Kinerja Guru Di MAN Majene [The Influence of Facility and Infrastructure Management on Teacher Satisfaction Performance in MAN Majene]. Thesis Management of Islamic Education, Fakultas Tarbiyah dan UIN **ALAUDDin** Keguruan. Makasar

- Sarina., Kristiawan, M., & Wardiah, D. (2019).

 Module Development the Utilization of
 Patchwork Fabric As Teaching
 Materials Crafts on the Subjects of
 Craft and Entrepreneurship For High
 School Students. *International Journal*of Scientific & Technology
 Research, 8(5).
- Schwab, M. K (2017). *The Fourth Industrial Revolution*. Geneva Switzerland: World Economic Forum.
- Setyaningsih., Abdullah., Prihantoro., & Hustinawati (2019) *Model Penguatan Literasi Digital Melalui Pemanfaatan E-Learning [Digital Literacy Strengthening Model Through the Use of E-Learning].* Jurnal ASPIKOM, 3(6).
- Sholihah, K. (2016). Analisis Literasi Digital: Pemanfaatan Studi atau Jurnal Elektronik oleh Mahasiswa Magister Manajemen di Perpustakaan UKSW Salatiga [Digital Literacy Analysis: Study of Utilization or Electronic Journals by Master of Management Students at the **SWCU** Salatiga Library]. UIN Sunan Kalijaga. Yoqyakarta.
- Siaran Pers BKLM, Number: 251/Sipres/A5.3/HM/XII/2018
- Stefani, S. N. (2017). Literasi Digital dan Pembukaan Diri: Studi Korelasi Penggunaan Media Sosoal Pada Pelajar Remaja Di Kota Medan [Digital Literacy and Self Opening: Correlation Studies on the Use of Social Media in Youth Students in the City of Medan]. Jurnal Pemikiran dan Penelitian Sosiologi 2 (1), 10-31.
- Steiner, A. G., & Minner, &. J. (1977). *Management Folicy and Strategy.* New York: Mc. Mellan.
- Sugiyono. (2010). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R & D [Educational Research Methods Quantitative, Qualitative and R&D Approaches].*Bandung: Alfabeta.

- Sugiyono. (2007). *Metode Penelitian Pendidikan [Educational Research Methods]*. Bandung: Alfabeta.
- Sugiyono. (2013) *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R & D [Educational Research Methods Quantitative, Qualitative and R&D Approaches].*Bandung: Alfabeta.
- Sugihartati, Rahma. (2014) Perkembangan Masyarakat Informasi dan Teori Sosial Kontemporer [Development of Information Society and Contemporary Social Theory]. Jakarta: Kencana Prenada Media Group.
- Suhardan, D. (2014). Supervisi Profesional Layanan dalam meningkatkan Mutu Pembelajaran di Era Otonomi Daerah [Professional Supervision of Services in improving the Quality of Learning in the Era of Regional Autonomy].

 Bandung: Alfabeta.
- Suhartono. (2008). SPSS 16.0 Analisis Data Statistika dan Penelitian [SPSS 16.0 Statistics Data Analysis and Research]. Yogyakarta: Pustaka Belajar.
- Sujarweni, V. Wiratna. (2014). *Metode Penelitian: Lengkap, Praktis dan Mudah di pahami [Research Methods: Complete, Practical and Easy to Understand].* Yogyakarta: Pustaka Baru Press
- Sukaesih, S. & Rohman, A.S., (2013). Literasi Informasi Pustakawan: Studi Kasus Di Universitas Padjadjaran [Librarian Information Literacy: Case Study at Padjadjaran University]. *Jurnal Kajian Informasi dan Perpustakaan, 1*(1), pp.61-72. doi:10.24198/jkip.v1i1.9612
- Susanto, A. (2010). *Teori Belajar Pembelajaran [Learning Theory].*Jakarta: Kencana.
- Sutopo. (2008). *Metodoogi Penelitian Kualitatif [Qualitative Research Methodology].* Surakarta, Sebelas Maret: University Press.
- Susanti, E., & Sholeh. (2008). Rancang Bangun Aplikasi E- Leraning [Design

- and Build E-Learning Applications]. Jurnal Teknologi,I (1) hal 53-57
- Tobari., Kristiawan, M., & Asvio, N. (2018). The Strategy of Headmaster on Upgrading Educational Quality In Asean Economic Community (AEC) Era. *International Journal of Scientific & Technology Research*, 7(4).
- Wandasari, Y., Kristiawan, M., & Arafat, Y. (2019). Policy Evaluation of School's Literacy Movement on Improving Discipline of State High School Students. *International Journal of Scientific & Technology Research*, 8(4).
- Wijayanti, D. M. (2017). Guru Zaman Now (Guruku, Sahabatku) [Current Age Teacher (My Teacher, My Best Friend)]. Semarang: Formaci.
- Wijaya, Y, E., Sudjimat, A, D., & Nyoto, A (2016). Transformasi Pendidikan Abad 21 sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global [Transformation of 21st Century Education as Demands for Human Resource Development in the Global Era]. In Seminar Nasional Pendidikan Matematik.
- Wihadanto, A. (2017). Entrepreneurial Leadership in Industrial Revolution 4.0. Teks Orasi Ilmiah, Upacara Wisuda Universitas Terbuka Periode I Tahun Akademik 2017/2018.
- Yazdi, M. (2012). E Learning sebagai Media Pembelajaran Interaktif Berbasis Teknologi Informasi [E Learning as an Interactive Learning Technology Based on Information Technology]. *Jurnal Ilmuwan Foristel 2 (1)*, 143-152.