



Digitizing Schools, Successful Interventions and Accelerating Expansion of Access to Driving School Education

Nining Fawely Pasju^(✉)

Universitas Bengkulu, Bengkulu, Indonesia
niningfpasju72513@gmail.com

Abstract. This study aims to describe the strengthening of digitalization as a process of accelerating education while still paying attention to the Pancasila student profile project implemented in the prototype curriculum in junior high school driving schools in Kepahiang district. The type of research used is descriptive qualitative research and quantitative. The research data was taken using a questionnaire given to each research sample. Determination of the sample using the Clusster Sampling technique (Area Sampling). The total population in this study were 29 schools. Then, from the total population, a sampling of the number of schools was carried out, 2 samples of driving schools in the Kepahiang District and 1 sample of driving schools in the Tebat Karai sub-district. The data obtained were analyzed using the e-learning readiness model. The results of data analysis show that strengthening digitalization as a process of accelerating school education for junior high schools in Kepahiang Regency in terms of infrastructure readiness, the readiness of educators/teaching staff is included in the ready cluster/category while the readiness factors of students are included in the cluster/category: not ready.

Keywords: Accelerated Expansion of Access to Education · Digitalization of Schools · Driving Schools · Successful Interventions

1 Introduction

Through a variety of values embedded in the learning process, education is a strategic tool for attempting to maximize each person's potential for living a decent life [1]. The growth of information and communication technology (ICT), particularly during the Industrial Revolution 4.0, brought about significant adjustments and dynamics in the way the world of education was implemented. Strategic efforts are being made by the Ministry of Communication and Information of the Republic of Indonesia in coordination with the Ministry of Education and Culture of the Republic of Indonesia [2]. In order to use digitalization in education. Schools are becoming more digitalized as a logical result of modernization [3]. The value of adaptation to be able to master science and technology is vitally necessary in these changing times. Including the use of information technology innovations that have made significant strides in the learning and teaching processes, which are crucial both during and following the Covid-19 pandemic that shook the world and Indonesia [4].

ICT has been incorporated into national education and curriculum initiatives by the government [5]. The rapid expansion of knowledge in global repositories is a major factor in the new types of skills that are becoming necessary. As a result, in order to access information from a variety of sources, students must develop information literacy and other associated abilities. ICT advancement is also advancing quickly. Students and teachers will undoubtedly require new abilities if these new ICT advancements are used in education [6]. A thorough professional development and implementation plan are needed for this.

Teaching and learning activities must be mentioned in ICT implementation strategies and professional development [7]. Access indicators, output indicators, and impact indicators are the metrics that need to be produced. ICT-Based School levels, namely: Pioneering, Elementary, Middle, and Established, can be referred to as targeted and systematic policies. At each level, the following variables are examined: infrastructure, human resources, content, learning, as well as policies and programs.

Developing one's digital literacy skills must be prioritized if one is to succeed in the digital world [8]. As the future generation of leaders, students must be proficient in digital literacy [9]. This study will test and analyze school readiness for implementing digital literacy so that it can be taken into account when implementing school digitalization. Learning ICT provides children's creativity in think of keeping up with current developments as strengthening digitalization as a process of accelerating education while still paying attention to the Pancasila student profile [10]. There is an effect of digitizing the use of smartphones in learning, and online learning can help children's thinking become more critical.

In order to be included in a school digitization initiative, this needs to be followed up on. One strategy for implementing school digitalization is through the development of information technology-based websites and school services [11]. In other research, it is stated that the digital-based learning revolution must be able to support active learning students so that the quality of teaching and learning increases [12].

Given the rising use of technology and information, it is crucial to investigate how prepared educators are to strengthen digitalization as a process of accelerating education while still paying attention to the Pancasila student profile project, which is implemented in the prototype curriculum at junior high school driving schools in the Kepahiang district. The integration of information technology into the educational process in schools is crucial, particularly in light of the present post-COVID 19 epidemic [13]. Examining how prepared schools are for digital transformation is crucial, especially in light of available infrastructure and human resources. The Junior High School (SMP) Education Sector, primarily the Mobilizing School Program, has been the focus of the Kepahiang Regency Education and Culture Office's efforts to implement initiatives to improve the quality of education. In order to strengthen digitalization as a process of accelerating education while still paying attention to the Pancasila student profile project, which is implemented in the prototype curriculum in driving schools junior high school level in Kepahiang district, the challenge that schools currently face is their readiness to enter school digitization. This will allow the educational process to run easily, smoothly, and well through the use of ICT.

When implementing school digitalization, the Kepahiang Regency Education and Culture Office, Bengkulu Province, must take into account the limited infrastructure in schools, the limited IT skills of teachers and students, and the limited degree of adaptation of schools to the digital world. The Pancasila student profile project, which is integrated into the prototype curriculum in junior high school driving schools in the Kepahiang area, needs to be further examined in order to improve digitalization as a process of accelerating education. The Kepahiang Education and Culture Office in particular will use the study's findings as a guide when establishing policy strategies for adopting school digitization, particularly at the junior high school level.

2 Methods

In order to accelerate education, the Pancasila student profile project, which is implemented in the prototype curriculum in junior high school driving schools in the Kepahiang district, is still a key focus of this study. Its goal is to characterize the strengthening of digitalization as a process in that respect. Descriptive qualitative and quantitative research is the type adopted [14]. Each research sample received a questionnaire, which was used to collect the research data.

Three junior high schools in Kepahiang Regency that later became driving schools made up the study's sample. Using the Cluster Sampling method (also known as area sampling) to determine the sample. In order to acquire three samples of SMP Moslem schools at the kindergarten, elementary, and junior high school levels in the Kepahiang district, mosquito schools were used. After being divided into numerous categories, the research findings based on the sample responses were then examined. A study's criteria are crucial since they provide as a basis for agreement during evaluation. The data obtained was examined. The rating scale is divided into four categories: (1) Ready and able to be executed; (2) Ready but requiring some improvement; (3) Not ready and requiring significant improvement; and (4) Not ready.

3 Results and Discussion

The main data of students for the 2022/2023 odd semester school year shows that the number of junior high schools (SMP) in Kepahiang Regency is 29 which are spread over 8 sub-districts with details in Table 1.

From the data in Table 1 it can be seen that the total population in this study is 29 schools. Then, from the total population, a sampling of the number of schools was carried out, 2 samples of driving schools in the Kepahiang District and 1 sample of driving schools in the Tebat Karai sub-district with the distribution in Table 2.

Strengthening Infrastructure Factor Readiness

Finding out the principal's opinion on school readiness in relation to infrastructure in enhancing digitalization as a process of accelerating education for junior high school driving schools in Kepahiang district is the goal of using the principal's questionnaire. The principal's questionnaire had eight questions in total, coded Q1 through Q8, with a maximum answer score of five (5) points and a minimum answer score of one (1) point.

Table 1. Number of Junior High Schools (SMP) in Kepahiang District

No	Subdistrict	Public School	Private School
1	Bermani Ilir	7	
2	Kabawetan	3	
3	Merigi	1	
4	Ujan Mas	3	
5	Kepahiang	5	2
6	Muara Kemumu	3	
7	Seberang Musi	2	
8	Tebat Karai	3	
	Amount	27	2

Table 2. A Sample of Driving Schools

No	District
1	SMP N 1 Kepahiang
2	SMP N 2 Kepahiang
3	SMP N 2 Tebat Karai

This indicator, which is part of the infrastructure readiness factor, has an average value of 3.60 and falls into the category of preparedness that might use some work (3.4 x 4.1). The indicator (Q5) relating to the usage of application systems for school governance and learning management is one of the areas that needs development. The average score for Q5—currently procuring or making applications—was 2.62, according to the data analysis findings. The Q3 indication relating to computers in schools that are well kept and regular receives the highest results, or Ready, Application of School Digitization can be Proposed, with an average score of 4.35, which is quite well maintained and not periodic. The Q7 indication—which receives an average score of 4.23 or exists but is little used—concerns schools having digital learning support technologies, such as LCD projectors, class laptops, etc. This indicator item also receives a high score.

Teacher Factor Readiness

For junior high school driving schools in the Kepahiang district, the goal of employing this teacher questionnaire is to ascertain the teacher's answer to the readiness of educators/teachers in strengthening digitalization as a method of accelerating education. The teacher's questionnaire had a total of 10 questions, which were coded from Q11 to Q20. The maximum answer score was 5 points, while the lowest was 1 point.

There is little room for growth in almost all of the markers of educators' and instructors' readiness (3.4 x 4.1). Just more indicators (Q15) about access to learning resources such learning homes, teacher rooms, Zenius, and other learning tools are required. According to the findings of the data analysis, the learning system for students had an average score of 3.22 for Q15, suggesting that it had been accessible but was rarely used. Given that the teacher's job as a resource linker is becoming more and more crucial in the modern digital era, this needs to be addressed. The ability to direct students or students to locate beneficial learning resources is a skill that teachers must possess in addition to teaching [15].

The simplicity of accessing the internet is shown by indicator Q12, while the ease of finding information on Google, YouTube, and Facebook is indicated by indicator Q13. Teachers can quickly and easily use the internet to access the needed information sources. This is evident from the data analysis results, where the scores for each question were 4.02 for Q12 and 4.04 for Q3. Although there is some need for improvement, this score is still considered ready.

Therefore, it can be seen that the average teacher readiness factor reaches 3.70 or in the category: Ready Needs a Little Improvement. Some things that need to be improved are: a) The teacher's ability to use several online learning media such as: zoom, google classroom, WhatsApp and google drive; b) The teacher's ability to access and implement the use of learning resources such as: learning houses, teacher rooms, zenius, and other learning resources; c) The teacher's ability to conduct learning in the network or online.

Student Factor Readiness

This survey is being used to determine the degree to which junior high school driving schools in the Kepahiang area are improving digitalization as a means of accelerating education. Teachers from three driving schools serving two sub-districts in the Kepahiang Regency were the respondents utilized to gauge student readiness.

The following are the justifications for students' or student teachers' completion of the school readiness survey: First off, students are finishing up their final semester examinations and extending their summer break during the data collection time. Second, the queries are linked to the queries posed to teachers and educators. Ten questions overall, numbered Q21 to Q30, make up the student/student preparedness factor questionnaire. The greatest answer score is five (5) points, while the lowest is one (1) point.

Table 8 contains a list of queries and queries pertaining to student factors and student preparation. There are numerous indicators of the question items given to obtain category findings in this area of student readiness: Not prepared and needs work. Q24, Q25, and Q28 are a few areas that want improvement. Q24 demonstrates that students lack proficiency with using online learning tools like Google Classroom, Google Drive, Zoom Meeting, and other learning tools. Additionally, none of the online learning resources such as Zenius, learning homes, instructor rooms, and other online learning resources have ever been accessed by Q25 students.

The item indicators for Q28, however, indicate that online learning is not very common. A number of these items' indications are crucial in assisting with the implementation of school digitalization. When learning occurs, it is vital to improve its application. Here, the teacher's role becomes crucial in helping students or students become more

adept at using digital learning resources, online learning media, and getting habituated to participating in online learning.

The categories listed below were determined from each of the item indicators used to determine if pupils were ready to implement school digitalization. Indicator Q21, which asks whether students own computers or smartphones and can use them effectively, is classed as Have and Adequate. The Q22 indicator, which measures how easily kids can access the internet, has pretty good results and is labelled as: Fairly easy.

So, it can be seen that the average student readiness factor reaches 3.35 or in the category: Not Ready in Need of a Little Improvement. Some things related to student abilities that need to be improved are: a) students' ability to use zoom meeting/google meet, google classroom and google drive; b) The ability of students to access and use learning resources such as learning houses, teacher rooms and zenius3. As well as habituation for students to take part in online learning. Students' ability to use zoom meetings/Google Meet, Google Classroom and Google Drive need to be improved.

This is a crucial signal in supporting the adoption of school digitization from the standpoint of human resources, particularly pupils. Teachers must become accustomed to using this learning material by implementing learning activities on a regular basis using Zoom Meeting/Google Meet, Google Classroom, and Google Drive. Based on the research instrument results on the question list code Q14, the teacher is proficient in using (zoom, google classroom, WhatsApp, google drive, etc.) with a score of 3.73. It's just that its use in learning is rarely done in collaboration with pupils. This is consistent with the results obtained in question code Q28, namely a score of 2.9, indicating that students do not use learning media such as zoom meet/google meet, google classroom, and google drive very frequently.

Similarly, students' skills to use online learning resources should be increased by involving students in accessing online learning resources such as learning homes, teacher rooms, and Zenius.

4 Conclusion

Based on the results of data analysis, it can be concluded that strengthening digitalization as a process of accelerating the education of junior high school driving schools in Kepahiang district in terms of infrastructure readiness factors is included in the cluster/category: Ready with the need for a little improvement. The same results were obtained in the readiness factor of educators/teaching staff included in the cluster/category: Ready with a slight increase in need. For the readiness factor, students are included in the cluster/category: Not ready but needs a little improvement. Imperfection in the value of each indicator shows that these indicators still need to be considered and improved both for the infrastructure readiness factor, the educator/teacher readiness factor and the learner/student readiness factor.

References

1. W. Hidayat and V. T. A. Sari, "Mathematical Critical Thinking Ability and Adversity Quotient for Middle School Students" *J. Elem.*, vol. 5, no. 2, p. 242, Jul. 2019, doi: <https://doi.org/10.29408/jel.v5i2.1454>.

2. N. Rulandari, "The Impact of the Covid-19 Pandemic on the World of Education in Indonesia," *Ilomata Int. J. Soc. Sci.*, vol. 1, no. 4, pp. 242–250, Oct. 2020, doi: <https://doi.org/10.52728/ijss.v1i4.174>.
3. Chris Muellerleile and Susan L. Robertson, "Digital Weberianism: Bureaucracy, Information, and the Techno-rationality of Neoliberal Capitalism," *Indiana J. Glob. Leg. Stud.*, vol. 25, no. 1, p. 187, 2018, doi: <https://doi.org/10.2979/indjglolegstu.25.1.0187>.
4. Z. Zaharah, G. I. Kirilova, and A. Windarti, "Impact of Corona Virus Outbreak towards Teaching and Learning Activities in Indonesia," *SALAM J. Sos. dan Budaya Syar-i*, vol. 7, no. 3, pp. 269–282, Mar. 2020, doi: <https://doi.org/10.15408/sjsbs.v7i3.15104>.
5. S. Palvia *et al.*, "Online Education: Worldwide Status, Challenges, Trends, and Implications," *J. Glob. Inf. Technol. Manag.*, vol. 21, no. 4, pp. 233–241, Oct. 2018, doi: <https://doi.org/10.1080/1097198X.2018.1542262>.
6. D. Mourtzis, "Development of Skills and Competences in Manufacturing towards Education 4.0: A Teaching Factory Approach," 2018, pp. 194–210.
7. D. Alt, "Science Teachers' Conceptions of Teaching and Learning, ICT Efficacy, ICT Professional Development and ICT Practices Enacted in Their Classrooms," *Teach. Teach. Educ.*, vol. 73, pp. 141–150, Jul. 2018, doi: <https://doi.org/10.1016/j.tate.2018.03.020>.
8. A. Kateryna, R. Oleksandr, T. Mariia, S. Iryna, K. Evgen, and L. Anastasiia, "Digital Literacy Development Trends in the Professional Environment," *Int. J. Learn. Teach. Educ. Res.*, vol. 19, no. 7, pp. 55–79, Jul. 2020, doi: <https://doi.org/10.26803/ijlter.19.7.4>.
9. D. T. K. Ng, J. K. L. Leung, K. W. S. Chu, and M. S. Qiao, "Literacy: Definition, Teaching, Evaluation and Ethical Issues," *Proc. Assoc. Inf. Sci. Technol.*, vol. 58, no. 1, pp. 504–509, Oct. 2021, doi: <https://doi.org/10.1002/pr2.487>.
10. W. Akhuai, A. A. Nugraha, Y. K. R. D. Lukitaningtyas, A. Ridho, H. Wulansari, and R. A. Al Romadhona, "Social Capital of Pancasila Education in Smart Education with Social Media in Cybercrime Prevention in the Industrial Revolution Era 4.0," *J. Panjar Pengabd. Bid. Pembelajaran*, vol. 4, no. 2, pp. 283–442, Aug. 2022, doi: <https://doi.org/10.15294/panjar.v4i2.55047>.
11. A. Supriyanto, S. Hartini, W. N. Irdasari, A. Miftahul, S. Oktapiana, and S. D. Mumpuni, "Teacher Professional Quality: Counselling Services with Technology in Pandemic Covid-19," *Couns. J. Bimbing. dan Konseling*, vol. 10, no. 2, p. 176, Nov. 2020, doi: <https://doi.org/10.25273/counsellia.v10i2.7768>.
12. D. Prestiadi, Maisyaroh, I. Arifin, and A. N. Bhayangkara, "Meta-Analysis of Online Learning Implementation in Learning Effectiveness," in *2020 6th International Conference on Education and Technology (ICET)*, Oct. 2020, pp. 109–114, doi: <https://doi.org/10.1109/ICET51153.2020.9276557>.
13. X. Xie, K. Siau, and F. F.-H. Nah, "COVID-19 Pandemic – Online Education in the New Normal and the Next Normal," *J. Inf. Technol. Case Appl. Res.*, vol. 22, no. 3, pp. 175–187, Jul. 2020, doi: <https://doi.org/10.1080/15228053.2020.1824884>.
14. N. Taguchi, "Description and Explanation of Pragmatic Development: Quantitative, Qualitative, and Mixed Methods Research," *System*, vol. 75, pp. 23–32, Jul. 2018, doi: <https://doi.org/10.1016/j.system.2018.03.010>.
15. A. Asrial, S. Syahrial, D. A. Kurniawan, M. Subandiyo, and N. Amalina, "Exploring Obstacles in Language Learning: Prospective Primary School Teacher in Indonesia," *Int. J. Eval. Res. Educ.*, vol. 8, no. 2, p. 249, Feb. 2019, doi: <https://doi.org/10.11591/ijere.v8i2.16700>.

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