

The Mentoring for Teachers at Primary School 1 Jati Wetan in Developing the E-Diagnostic Assessment Model based on Literacy to Manage Learning Loss of the Learners

Fina Fakhriyah¹, Siti Masfuah², Ika Ari Pratiwi³, F. Shoufika Hilyana⁴

^{1,2,3,4} Universitas Muria Kudus, Indonesia

* Correspondence e-mail; fina.fakhriyah@umk.ac.id

Article history

Submitted: 2024/08/07; Revised: 2024/09/19; Accepted: 2024/10/04

Abstract

Implementing online learning has an unfavorable influence on students' motivation and enthusiasm for learning. So far, assessments have been carried out, but teachers at SD 1 Jati Wetan have never evaluated with e-diagnostic assessments. Community Service Activities aim to provide knowledge sharing and application of technology to improve teacher competence and skills by developing e-diagnostic assessments to overcome student learning loss and improve the quality of post-pandemic learning. This community service activity uses PAR (Participatory et al.). Teachers can compile literacy-based e-diagnostic assessments with optimal application of technology. This activity is carried out in stages: 1) planning stage, (2) socialization and training stage for introducing literacy-based e-diagnostic assessments, (3) training and assistance stage for designing literacy-based e-diagnostic assessments, (4) technology application stage, (5) e-implementation stage literacy-based diagnostic assessment to identify learning loss, and (6) evaluation stage of program activities and sustainability. The results of Community Service activities are in the form of developing literacy-based e-diagnostic assessments and being skilled in their application to identify learning loss. Literacy-based diagnostic assessment products are implemented programmatically and productively by teachers. Teachers can compile literacy-based diagnostic assessments with the application of technology to results that can be used as a basis for achieving optimal literacy and numeracy competencies.

Keywords

E-Diagnostic Assessment; Elementary School Teachers Group; Literacy



© 2024 by the authors. This is an open-access publication under the terms and conditions of the Creative Commons Attribution 4.0 International (CC BY SA) license, <https://creativecommons.org/licenses/by-sa/4.0/>.

1. INTRODUCTION

Improving human resource competitiveness optimally in the 21st century is important. The education system pursues top-quality, highly competitive, and globally competitive human resources. The education system is constantly changing to enhance its output. Sani (2022) It also explains that education can force positive change, reinforcing this. In the education sector, it is better to take the right steps to address changes in learning activities. This happened during the COVID-19 pandemic in March 2020, so simultaneously, learning at all levels was carried out online or at home. This implementation of online learning had a significant impact on the learning process, thus posing a variety of challenges for students, teachers, and policymakers. Even though online learning lasted for almost two years, each school currently uses different formulas or methods of instruction depending on its capacity. Online learning indirectly provides difficulties for students in understanding the material and requires parents' assistance and commitment to cooperate.

Liu (2019) Explains that students and teachers experienced various learning difficulties during the pandemic. Therefore, teachers should detect learning difficulties experienced by students. Hamdani & Priatna (2020) Found that teachers had to confront certain shortcomings and limitations, such as: 1) teachers had no immediate online technology anticipation; 2) teachers had unequal digital literacy skills; some teachers had adaptable skills while others did not, leading to online learning difficulty; 3) Not all teachers and students had a minimum number of devices, making online learning challenging; 4) The quality of connections and the availability of data packages remained restricted, and their high cost posed a significant barrier.

Teachers must implement innovative and interactive learning strategies in online-based learning to facilitate students learning from home. Rosalin (2020) found that 1) 58% of children reported experiencing unpleasant feelings; 2) 38% believed they did not implement an excellent program. Online learning poorly influences student motivation and enthusiasm due to a lack of interaction, technical constraints, and learning time (Komalawati, 2020). Maulyda et al. (2021) revealed that, during a pandemic, learning processes and activities were not optimum. Students will not obtain the maximum amount of information if they do not maximize the learning process. This situation refers to a learning loss (Huang et al., (2020); Zhao (2022)). *The Education and Development Forum* defines learning loss as a situation in which students lose knowledge and skills, either generally or specifically, resulting in academic decline due to certain conditions, such as prolonged gaps or the non-perpetuation of the educational process (Huong & Jatturas, 2020). Learning loss includes limited

interactions between educators and students, limited interactions between students and each other, issues with learning time, a lack of concentration and focus, and a lack of student absorption of the provided learning material (Cerelia et al., 2021).

Terayanti (2020) Revealed the symptoms of students experiencing learning loss, including retarded achievement, declining intellectual and skill levels, growing disruptions, psychological and psychosocial stresses, and gaps in access to learning. School policies that encourage teachers to continue learning must enrich the teacher's competence and skills to cope with students' learning losses. Educators must measure the student's learning burden both materially and time. Teachers should not simply assign a task but rather consider the mature use of various applications to interact with students (Budi, 2021); (Wahyono et al., 2020). In addition to focusing on the online learning process, assessment or evaluation of online learning is essential. Online learning assessment practices can assist teachers in detecting student learning losses. The first step in addressing learning loss problems involves identifying learning difficulties or obstacles, pinpointing the underlying cause, and devising solutions to overcome these obstacles. Diagnostic learning assessments can identify learning difficulties and barriers. Diagnostic methods can reveal and determine the student's difficulty understanding the material (Abidin & Retnawati, 2019). This e-diagnostic assessment model aims to diagnose a student's learning difficulties or obstacles, pinpoint the root causes, and formulate follow-up improvements. The E-diagnostic assessment model identifies students' competence, strengths, and weaknesses, enabling learning design to meet their abilities and conditions. These e-assessments can help students identify learning difficulties, analyze their strengths and weaknesses in learning, and determine the depth of material they master (Salma et al. (2016); Arifin et al. (2019); Masfuah et al. (2021)).

The results of the observations and interviews conducted with the principal and the teacher of Primary School 1, Jati Wetan, revealed that the applied assessment was with a Google Form question uploaded in the Google Classroom only for high school learner groups. On the other hand, many parents objected to the quota because parents were busy and could not accompany their children to study. Instead, the teacher preferred distributing the questions through WhatsApp groups, where students worked and uploaded the results, or bringing the questions to school and returning them on different days. An analysis of the implementation of online learning at the primary school supported the findings. The results found various issues, such as parental support, quotas, and connections. In this case, the learning process only conveyed core competencies without requiring high student skills (Masfuah et al.,

2021). Furthermore, since implementing the limited face-to-face policy, teachers have been unable to develop and provide diagnostic assessments to students. In this case, teachers had difficulty determining diagnostic assessments. As a result, teachers could not plan and implement online learning assessments (Rohmatika et al., 2021). The unidentified difficulties of post-learning from home for students have led to controversy and major problems both nationally and globally (Komalawati, 2020). The failure to conduct early diagnostic tests could result in misconduct while facilitating face-to-face learning or implementing interventions during face-to-face learning or post-learning from home.

The results of the necessity analysis found that students were not accustomed to using computers or working with software due to economic conditions, parental limitations, and a lack of habituation at school. Therefore, students must receive habituation to use the software. In addition, the drilling of competence assessment for the teachers ended up browsing the internet due to their lack of designing HOTS-based questions. Teachers could have bought the question banks, but the school-operative financial assistance limited this progress. Therefore, the technological support and development to produce literacy-based diagnostic assessments to identify learning losses and strengthen minimum competence assessment of students are important. Previous research found that developing literacy-based learning tools that incorporate technological aspects, phenomenon analysis, and diagnostic issues leads to increased literacy in science (Fakhriyah et al., 2019). Additionally, teachers can facilitate innovative learning by providing pertinent learning resources and focusing on the mastery of IT-based knowledge. This effort is important to meet the challenges of the 4.0 industrial revolution, both for teachers and technologically-skilled students.

2. METHODS

This community service activity uses PAR (Participatory et al.). This Mentoring activity aimed to 1) enhance teachers' understanding in creating diagnostic assessments to pinpoint students experiencing learning loss, 2) enhance their proficiency and abilities in creating diagnostic assessments to pinpoint pupils' learning loss, thereby enhancing the quality of post-pandemic learning, and 3) guarantee teachers to create diagnostic assessments based on literacy, utilizing technology to produce outcomes that can serve as guidelines for achieving optimal literacy and numeracy proficiency. The Main Performance Indicators (IKU) or Universitas Muria Kudus were closely aligned with the objectives of this Mentoring activity. Implementing this Mentoring activity contributed to the achievement of IKU

2 and directly involved students in developing a literacy-based diagnostic assessment. The achievement of IKU 2 was that students spent 20 credits outside the campus because they were involved in developing literacy-based diagnostic assessments, implementing learning innovations, and providing teaching assistance on school field orientation activities (PLP). The next achievement of IKU 3 was - that the lecturer carried out the three society contributions outside of the campus because, in this case, the lecturer became a practitioner to assist Public Primary School 1 Jati Wetan in overcoming the problem of low literacy ability of students, helping to identify learning loss at the school, and assisting in preparing minimum competence assessment about numeration literacy. These dedication activities led to the implementation of IKU 5 with high external attention and publication outputs at the national and international levels. The IKU 6 achievement was implementing cooperation with Public Primary School 1 Jati Wetan. Therefore, mentoring or mentoring activities for developing literacy-based diagnostic assessments could support the achievement of the IKU, as established by the university.

Based on the described issues, the researchers proposed a dedicated program to develop the E-Model Diagnostic Assessment based on Literacy for Public Primary School 1 Jati Wetan teachers. To improve the quality of education, particularly for teachers and students who could access online and offline, the team provided training, technology applications, and support to realize the achievements of numerical and literacy competencies as suggested by the minimum competence assessment optimally. This activity used appropriate technology, such as trained human resources, appropriate techniques, and tools. The applied instruments were software to search for information, plan, and create e-diagnostic assessments based on literacy.

The applied technique was participant-active learning to identify student learning losses and strive for optimal literacy and numeration competence (the Minimum Competence Assessment). This technique allowed teachers to be active, creative, and innovative in designing and creating e-diagnostic assessments based on literacy. An expert assessment and evaluation of literacy-based learning with technology was the key information by the proposing team. With this support, teachers could design and create e-diagnostic assessments based on literacy, enabling them to identify students' fundamental skills and provide diverse stimuli to enhance their cognitive processes. With the development of literacy-based e-diagnostic assessment, teachers would know whether the remedial and enrichment methods were excellent for realizing and achieving the minimum competence assessment. Moreover, Istiyono (2019) also agrees that one way to make learning more effective is

to recognize the weaknesses of students and teachers to efficiently assist in solving the problem.

The student-creative program activity was based on analyzing research needs and results and the team's dedication to previous activities. The researchers conducted initial research on literacy-based learning, developed e-diagnostic assessment models, designed e-diagnostic assessments related to technology, and trained primary school teachers. The dedicated follow-up team carried out a variety of research on e-diagnostic assessment, literacy, and learning loss experienced by students. The research findings indicate that students' low literacy levels due to the pandemic were hindering their learning during the pandemic. Therefore, before conducting limited face-to-face learning in school, teachers should inform students about e-diagnostic assessments based on literacy to assess students' abilities. The proposing team once conducted a similar community-dedicated activity for the teachers at the school and found a significant improvement. The development of media and educational materials could also encourage literacy improvement. Researchers argue that exploring the creation of a four-tier diagnostic assessment model to evaluate future teachers' comprehension of concepts is important (Masfuah et al., 2021). The research results of the 2020 proposing team found valid and practical results of the developed diagnostic assessment model to measure the students' misconceptions. The literacy results indicated that the students did not have maximum literacy skills (Masfuah et al., 2021). Research findings and community dedication demonstrate teachers' need to receive support and training in literacy-based e-diagnostic, particularly online and offline, to enhance the quality of education and achieve the highest level of literacy and numeration competency (minimum competence assessment).

Public Primary School 1 Jati Wetan, located in the Jati Kudus District, is a partner in this activity. The school represented the population in the Jati district, which was encountering challenges in designing and implementing e-diagnostic assessments based on literacy. Target training activities, planning, and the creation of e-diagnostic assessment-based literacy can produce external products that address some evaluation issues based on the lesson points chosen by teachers to improve professionalism, teacher competence, and teacher quality in improving learning in the classes and to conform to the Merdeka Curriculum. The training could improve the skills and quality of teachers in designing and creating an e-diagnostic assessment based on literacy.

3. FINDINGS AND DISCUSSION

The researchers were dedicated to community activities by collaborating on developing an e-diagnostic assessment based on literacy that utilized literacy to address learning loss in students. The participating teachers in the training and the Mentoring were ten teachers and a principal. This training aimed to 1) enhance teachers' knowledge in creating diagnostic assessments to identify students experiencing learning loss; 2) enhance their competence and skills in creating these assessments to enhance learning quality post-pandemic; and 3) guarantee that teachers create e-diagnostic assessments based on literacy using technology as a foundation for achieving optimal literacy and numeracy proficiency. The facilitators of this community-dedicated program team for the community of Primary School Teacher Study Program of Teacher and Training Faculty of Universitas Muria Kudus were Fina Fakhriyah, S.Pd., M.Pd, Siti Masfuah, S.Pd., M.Pd., dan Ika Ari Pratiwi, S.Pd., M.Pd. Ilham Saputra, Indah Febriana, Aula Zahirotul Maulida, Nabila Nihlatil Kamila, and Kurnia Ully Wardani were the other participants. Partners' participation in dedication activities directly solved the encountered problems. The partners served as supporters during the program's implementation, specifically by providing support and training to participants, producing external forms of literacy-based e-diagnostic assessment, and applying the results of developing e-diagnostic assessment based on literacy to students.

The knowledge and technology activity for the society at Public Primary School 1 Jati Wetan was held from September to October 2023, specifically in the second-grade classroom. The activities included: 1) planning; 2) socialization and e-diagnostic assessment based on literacy introduction training; 3) the training and Mentoring of the e-diagnostic assessment based on literacy design; 4) applying technology; 5) implementing the e-diagnostic assessment based on literacy to identify stages of learning loss; and 6) assessing program activity and sustainability phases.

3.1 The Planning Stage

At this point, the team asked permission from the school partner based on the agreed MoU and coordinated with the technical unit. During the planning stage, the team created plans by performing the following tasks; The design plan for the mentoring activity was determined through a field study and necessity analysis based on field facts; The collection included reference sources and literature studies focusing on assessment, e-diagnostic assessment based on literacy, and learning loss; The planned mentoring induced the knowledge transfer for the teacher partners at the school.

The training and supporting material design consisted of assessment, e-diagnostic assessment based on literacy, learning loss, and techniques and applications with specific platforms. The school's information revealed that the teachers occasionally used a Google Form or quiz for the assessment. Teachers had difficulty planning and implementing online learning assessments. (Rohmatika et al., 2021). The implementation analysis revealed various issues, such as parental support, balance, and connections. Other evidence found that the learning only conveyed core competencies without demanding a significant amount of students' skills (Masfuah et al., 2021). The teachers still found the effects of online learning despite the normal implementation of the program. The unidentified learning difficulties after learning from home might lead to controversy and sustainable problems both nationally and globally (Komalawati, 2020). The previous diagnostic tests were not applied, which led to misconduct in facilitating face-to-face learning or in implementing interventions during face-to-face learning after the period of learning from home. The team planned with partners to introduce and socialize the use of e-diagnostic assessment based on literacy to address student learning loss.

3.2 The Socialization and Training of the E-Diagnostic Assessment Based on Literacy

The coordination with the principal revealed that students at SD 1 Jati Wetan were not accustomed to using computers or working with software because of financial constraints, parental limitations, and a lack of school routines. Therefore, since being selected as the Leading School, Public Primary School 1, Jati Wetan created a program to improve the learning process. The school had a projector in every room so teachers and students could use technology in the learning process. Implementing e-diagnostic assessment based on literacy should be useful in mapping students' basic skills, thereby obtaining results as a basis for achieving optimum literacy and numeration competence.

Before conducting socialization and e-diagnostic assessment based on literacy training, the researchers found teachers could not create app-based evaluation questions, lacked online-based learning organization, and lacked the necessary skills to create questions using applications. The solutions to provide training and technology related to the applications and platforms in creating online-based evaluation questions attempted to make students accustomed to working with these tools and applications. Implementing online applications has a significant role in facilitating and simplifying teachers' jobs. Teachers with expertise in online applications could create more effective learning evaluation tools. Teachers could learn the assessment results and analyze the prepared questions quickly. This method

allows teachers to work faster and easier, especially while taking various steps to monitor the students' performances (Dibia et al., 2021).

3.3 The Training AND Mentoring Stages of Designing E-Diagnostic Assessment Based on Literacy

During the implementation stage, the team supported the school with the following activities:

3.3.1 Socializing the training and mentoring the development of e-diagnostic assessment based on literacy for the teachers.



Figure 1. Socializing the Training and Mentoring the Development of E-Diagnostic Assessment based on Literacy at Public Primary School 1 Jati Wetan

3.3.2 The dissemination of the e-diagnostic assessment based on literacy materials



Figure 2. The dissemination of the definition and types of the assessments

3.3.3 The dissemination of e-diagnostic assessment based on literacy materials



Figure 3. The dissemination and types of e-diagnostic assessment based on literacy

3.3.4 The dissemination of the e-diagnostic assessment based on literacy materials with application or web



Figure 4. The dissemination of the e-diagnostic assessment based on literacy with web or application

The implementation of this mentoring process begins with socialization activities, followed by the presentation of material from the mentoring team. The digital era brings a paradigm shift in the traditional teaching and learning process, which has been replaced by an innovative approach facilitated by technology. This change and transition raises crucial questions regarding the potential influence of technology on students' cognitive development, especially in fostering innovative mindsets (Rifky, Malahayati, et al., 2023). Several research results have shown that using computer technology, including the internet, can affect the development of higher psychic functions and cognitive self-control (Harahap et al., 2023; Iskandar, 2023; Iskandar & Sarastika, 2023). In addition, the role of educators has evolved

beyond being teachers to facilitators of learning, encouraging critical thinking, creative thinking, and teamwork skills in students. However, it is important to note that although technology has the potential to increase access to information and educational policies, teachers have not fully utilized the digital facilities provided to maximize the learning process (Padriyansyah & Pratiwi, 2021; Pamungkas, 2022). Therefore, further research and efforts are needed to explore the full potential of technology in fostering innovative mindsets and improving the quality of education in the digital era.

3.4 The Stage of Implementing the Technology

The team collaborated with the teacher to make the questions and put them on the Kahoot and Quiziz applications. The products and the diagnostic questions were inputted into the application. All participants arranged the questions based on their fields and grades. The dedicated team mentored the question designs and realization of the e-diagnostic assessment based on literacy. Figure 5 shows the process.



Figure 5. The practices of designing and arranging the e-diagnostic assessment based on literacy on applications and web

3.5 The stage of Implementing the E-Diagnostic Assessment Based on Literacy

During the implementation stage, the teachers and the team implemented the results of quizzes and trials conducted by their colleagues in one adjoining room. The researchers expected the school students would directly benefit from this implementation. Teachers had to do additional activities to ensure their developed diagnostic assessment met the learning outcomes and learning objectives.

Teachers created e-diagnostic assessments using the Kahoot and Quiziz applications. The questionnaire found that 85% of teachers were interested in using Quiziz during the mentoring. Quiziz has complete menu choices and accommodates assessment activities even without a gadget. Quiziz is an effective e-learning-based application that evaluates students quickly and immediately gives results to teachers so that teachers can quickly take action. (Purba, 2019; Yan mei et al., 2019).

3.6 The stage of Evaluation and Program Sustainability

This stage evaluates the realization of the activity and plan for the program's sustainability. Table 1 shows the criteria for program success. The Criteria of Successful Program Realizations

Table 1. The Criteria of Successful Program Realizations

Activities	Materials	The Criteria of Success
Observation	Granting permission in Public Primary School 1 Jati Wetan and conducting a literature study	100% done
	Identifying and analyzing the necessity of solving problems at the school	100% done
Technical Meeting	Planning the developing activity of e-diagnostic assessment based on literacy and technological implementation with the school partner	100% done
Socializing and training	Holding a workshop to analyze the online learning and limited face-to-face activities at the school	90% attended by the participants
	Socializing the learning assessment and encountering difficulties	90% attended by the participants
Training and Mentoring	Planning the development of e-diagnostic assessment based on literacy based on every	100% done

Activities	Materials	The Criteria of Success
	teacher's necessity	
	Mentoring and training the arrangement of accessible e-diagnostic assessment based on literacy for students both online and offline	100% done
	Planning and training the implementation of accessible e-diagnostic assessment based on literacy for students both online and offline	100% done
Product Implementation	Promoting a trial run and implementation of the e-diagnostic assessment based on literacy	100% done
The Results of Product Development	A sustainable process of developing accessible e-diagnostic assessment based on literacy for the students practically and efficiently both online and offline to identify the learning loss and improve the student and teachers' minimum competence assessment	100% done

From the evaluation, the mentoring activity of e-diagnostic assessment based on literacy for the Public Primary 1 Jati Wetan students with the dedicated team of Primary School Education Study Program of Teacher and Training Faculty of UMK ran smoothly, actively, creatively, effectively, and successfully. The teachers of Public Primary School 1 Jati Wetan gained: 1) knowledge about the development of accessible e-diagnostic assessment based on literacy; 2) knowledge about the e-diagnostic assessment based on literacy; and 3) improved skills and creativity in designing and arranging the e-diagnostic assessment based on literacy.

4. CONCLUSION

The researchers implemented mentoring activities to develop an e-diagnostic assessment based on literacy to address learning loss. This resulted in teachers learning how to create diagnostic assessments to identify student learning loss and enhance their skills in improving learning quality after the pandemic. By incorporating technology, teachers can develop literacy-based diagnostic assessments, a foundation for achieving optimal literacy and numeracy competence.

REFERENCES

- Abidin, M., & Retnawati, H. (2019). A diagnosis of difficulties in answering questions of circle material on junior high school students. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 23(2), 144–155.
- Andikayana, D. M. (2021). *Pengembangan instrumen asesmen kompetensi minimum (akm) literasi membaca level 2 untuk siswa kelas 4 sd*. Universitas Pendidikan Ganesha.
- Arifin, S., Kartono, K., & Hidayah, I. (2019). The Analysis of Problem-Solving Ability in Terms of Cognitive Style in Problem-Based Learning Model with Diagnostic Assessment. *Unnes Journal of Mathematics Education Research*, 8(2), 147–156.
- Budi, D. R. (2021). *Evaluasi Pembelajaran Senam di Masa Pandemi Covid 19 Berbasis e-Learning Eldiru*.
- Cerelia, J. J., Sitepu, A. A., & Toharudin, T. (2021). Learning loss akibat pembelajaran jarak jauh selama pandemi Covid-19 di Indonesia. *E-Prosiding Seminar Nasional Statistika | Departemen Statistika FMIPA Universitas Padjadjaran*, 10, 27.
- Dibia, I. K., Renda, N. T., Yudiana, K., Artaningsih, L., & Wiradnyana, I. G. A. (2021). Pelatihan Aplikasi Quizizz Bagi Guru Untuk Mengevaluasi Hasil Belajar Siswa Secara Daring. *SEPAKAT: Seminar Nasional Pengabdian Kepada Masyarakat*, 2(1), 1–7. <https://journal.itk.ac.id/index.php/sepakat/article/view/504>
- Fakhriyah, F., Masfuah, S., & Mardapi, D. (2019). Developing scientific literacy-based teaching materials to improve students' computational thinking skills. *Jurnal Pendidikan IPA Indonesia*, 8(4), 482–491. <https://doi.org/10.15294/jpii.v8i4.19259>
- Grey, S. (2021). *PISA, policy, and the OECD: Spatializing global educational governance through PISA for schools: by Steven Lewis, Singapore, Springer, 2020, xix+ 188 pp., £103.99 (hardback), €85.59 (e-book), ISBN 978-981-15-8284-4, ISBN 978-981-15-8285-1 (eBook)*. Taylor & Francis.
- Hamdani, A. R., & Priatna, A. (2020). Efektifitas implementasi pembelajaran daring (full online) dimasa pandemi Covid-19 pada jenjang Sekolah Dasar di Kabupaten Subang. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang*, 6(1), 1–9.
- Harahap, M. A. K., Wurarah, R. N., Fathurohman, A., Suroso, A., & Iskandar, Y. (2023). Globalization Substance And Industrial Revolution 4.0 And The Role Of Technological Innovation For Economic Development Towards Entrepreneurship. *Jurnal Bisnisan: Riset Bisnis Dan Manajemen*, 4(3), 37–51. <https://doi.org/10.52005/bisnisan.v4i3.122>
- Huang, Y., Wang, Y., Tai, Y., Liu, X., Shen, P., Li, S., Li, J., & Huang, F. (2020). Curricularface: adaptive curriculum learning loss for deep face recognition. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*,

5901–5910.

- Huong, L. T., & Jatturas, T. N. (n.d.). The Covid-19 Induced Learning Loss – What Is It And How It Can Be Mitigated? *Https://Www.Ukfiet.Org/2020/the-Covid-19-Induced-Learning-Loss-What-Is-It-and-How-It-Can-Be-Mitigated/*.
<https://www.ukfiet.org/2020/the-covid-19-induced-learning-loss-what-is-it-and-how-it-can-be-mitigated/>
- Iskandar, Y., & Sarastika, T. (2023). Study of Socio-Economic Aspect and Community Perception on The Agricultural Area Shrimp Ponds Development in Pasir mendit and Pasir Kadilangu. *West Science Journal Economic and Entrepreneurship*, 1(01), 28–36
- Iskandar, Y. (2023). Hubungan Self-Efficacy dengan Prokrastinasi Akademik Mahasiswa Semester 5 Fakultas Bisnis dan Humaniora Universitas Nusa Putra (Sebuah Proposal Penelitian). *Jurnal Psikologi Dan Konseling West Science*, 1(1), 43–52.
- Komalawati, R. (2020). Manajemen Pelaksanaan Tes Diagnostik Awal Di Sekolah Dasar Pasca Belajar Dari Rumah Untuk Mengidentifikasi Learning Loss. *Jurnal Edupena*, 1(2), 135–148.
- Liu, Y. (2019). Using reflections and questioning to engage and challenge online graduate learners in education. *Research and Practice in Technology Enhanced Learning*, 14(1), 1–10.
- Masfuah, S, Fakhriyah, F., Wilujeng, I., & Rosana, D. (2021). The Content Validity of Scientific Literacy-Based Diagnostic Assessment. *7th International Conference on Research, Implementation, and Education of Mathematics and Sciences (ICRIEMS 2020)*, 684–691.
- Masfuah, Siti, Fakhriyah, F., & Hakim, M. M. (2021). An Evaluation of E-Learning Implementation During Covid-19 Pandemic in Elementary School. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, 7(4), 933–945.
- Maullyda, M. A., Erfan, M., & Hidayati, V. R. (2021). Analisis situasi pembelajaran selama pandemi covid-19 di sdn senurus: kemungkinan terjadinya learning loss. *COLLAPSE (Creative of Learning Students Elementary Education)*, 4(3), 328–336.
- Nurjanah, E. (2021). Kesiapan Calon Guru SD dalam Implementasi Asesmen Nasional. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar*, 3(2), 76–85.
- Padriyansyah, P., & Pratiwi, T. S. (2021). Analisis Sistem Penggajian Dalam Upaya Pengendalian Internal Perusahaan. *Jurnal Neraca: Jurnal Pendidikan Dan Ilmu Ekonomi Akuntansi*, 5(1), 48. <https://doi.org/10.31851/neraca.v5i1.5673>

- Pamungkas, G. (2022). Determinan Penyerapan Tenaga Kerja Sektor Industri Manufaktur Di Kabupaten/Kota Jawa Tengah Tahun 2018-2021. *Ekonomikawan: Jurnal Ilmu Ekonomi Dan Studi Pembangunan*, 22(2), 1–12. <https://doi.org/10.30596/ekonomikawan.v22i2.10922>
- Purba, L. S. L. (2019). Peningkatan Konsentrasi Belajar Mahasiswa Melalui Pemanfaatan Evaluasi Pembelajaran Quizizz Pada Mata Kuliah Kimia Fisika I. *Jurnal Dinamika Pendidikan*, 12(1), 29. <https://doi.org/10.33541/jdp.v12i1.1028>
- Rifky, S., Malahayati, T., Udin, T., Bakhtiar, A. F., Sambudi, L., & Nurjati, I. S. (2023). Manajemen Pelatih Ekstrakurikuler di RA Ma'arif Langut Kabupaten Indramayu. *Journal Jendela Bunda PG PAUD UMC*, 10(2).59-67
- Rohim, D. C. (2021). Konsep asesmen kompetensi minimum untuk meningkatkan kemampuan literasi numerasi siswa sekolah dasar. *Jurnal Varidika*, 33(1), 54–62.
- Rohmatika, Z. F., Khotimah, K., & Umayaroh, S. (2021). Analisis Pelaksanaan Penilaian Dalam Pembelajaran Daring di Sekolah Dasar Negeri Se-Kecamatan Tumpang Kabupaten Malang. *Prosiding Seminar Nasional Kependidikan Sekolah Dasar Dan Prasekolah*, 385–396.
- Rosalin. (n.d.). Dampak Covid 19 terhadap Anak. <https://www.kemendiknas.go.id/index.php/Pages/Read/29/2717/Kemen-Pppa-Siapkan-Kebijakan-Informasi-Layak-Anak-Dalam-Masa-Pandemi-Covid-19>.
- Salma, V. M., Nugroho, S. E., & Isa, A. (2016). Pengembangan E-Diagnostic Test Untuk Mengidentifikasi Pemahaman Konsep Fisika Siswa SMA Pada Pokok Bahasan Fluida Statis. *Unnes Physics Education Journal (UPEJ)*, 5(1), 18–25. <http://journal.unnes.ac.id/sju/index.php/upej>
- Sani, R. A. (2022). *Inovasi pembelajaran*. Bumi Aksara.
- Terayanti, Y. A. (2020). *Pengaruh pembelajaran pada anak berkebutuhan khusus di masa pandemi covid 19*.
- Wahyono, P., Husamah, H., & Budi, A. S. (2020). Guru profesional di masa pandemi COVID-19: Review implementasi, tantangan, dan solusi pembelajaran daring. *Jurnal Pendidikan Profesi Guru*, 1(1), 51–65.
- Yan mei, S., Yan Ju, S., & Adam, Z. (2019). Implementing Quizizz as Game-Based Learning in the Arabic Classroom. *European Journal of Social Science Education and Research*, 5(1), 194–198. <https://doi.org/10.2478/ejser-2018-0022>
- Zhao, Y. (2022). Build back better: Avoid the learning loss trap. *Prospects*, 51(4), 557–561