

Preparation to Face Minimum Competency Assessment in Elementary School

Retno Dwi Astuti¹, Eko Supriyanto², Yeny Prastiwi³, Minsih⁴

¹ Universitas Muhammadiyah Surakarta; email: q200200043@student.ums.ac.id

² Universitas Muhammadiyah Surakarta; email: es113@ums.ac.id

³ Universitas Muhammadiyah Surakarta; email: yp252@ums.ac.id

⁴ Universitas Muhammadiyah Surakarta; email: min139@ums.ac.id

ARTICLE INFO

Keywords:

Minimum Competency Assessment; preparation; elementary school.

Article history:

Received 2022-07-13

Revised 2022-08-02

Accepted 2022-09-26

ABSTRACT

Minimum Competency Assessment (AKM) as a new assessment system needs to be addressed by the organised school by making various preparations. This study describes the preparation for dealing with AKM in Elementary Schools (SD). This research is qualitative research with a phenomenological approach. The subjects in this study were principals and teachers of a public elementary school in the Eromoko sub-district, Wonogiri district. Data were collected by using observation, interview, and documentation techniques. Data analysis techniques using interactive analysis include data collection, reduction, presentation, and conclusion. The results showed that the AKM organising education unit had prepared rooms and equipment by preparing a waiting room, AKM room, Chromebook, electricity and stable internet. Administrative preparation was done by printing and pasting the required documents. The preparation of students was done by providing socialisation, practice about AKM questions using books, and training on the use of computers.

This is an open-access article under the [CC BY-NC-SA](#) license.



Corresponding Author:

Retno Dwi Astuti

Universitas Muhammadiyah Surakarta; email: q200200043@student.ums.ac.id

1. INTRODUCTION

Learning 21st-century skills is a priority in today's schools because of the importance of information and communication. Literacy, numeracy, and ICT literacy are the three pillars of education in the 21st century, according to Wijaya et al. (2016). Students should be taught the fundamentals of reading, writing, and arithmetic. The quality of schooling can only rise if these foundational skills are consistently honed and refined. Students in Indonesia's primary and secondary schools still have inadequate literacy and numeracy skills. Student performance in reading, maths, and science in Indonesia fell below the OECD's minimal average in 2018, according to the Program for International Student Assessment (PISA) survey (Kemdikbud, 2019). Following the publication of the PISA results, governments around the world alter

their educational policy accordingly. Policies such as these involve implementing the curriculum from 2013, encouraging student autonomy through the Merdeka Belajar initiative, and administering the Minimum Competency Assessment (AKM), a subset of the National Assessment of Educational Progress (AN).

AKM is implemented to map and improve the quality of education by focusing on measuring the knowledge of basic competencies, namely literacy and numeracy of students (Rohim et al., 2021). In contrast to the National Examination (UN), AKM does not measure student learning outcomes in certain subjects but the basic literacy and numeracy competencies required in various subjects. The government's policy on AKM in elementary schools will begin to be implemented in 2021 and will be attended by randomly selected 5th-grade students.

The implementation of AKM in elementary school requires several preparations. Minister of Education and Culture (Mendikbud) Nadiem Makarim said that the implementation of AKM still had to be perfected by preparing the facilities and providing training for teachers (Meriana & Murniarti, 2021). However, some schools still do not own good facilities, including rooms, computers, and the internet. Schools also experience a limited number of educators and education personnel needed to organise AKM. Based on interviews with school principals, in 2020, schools received Information and Communication Technology (ICT) assistance from the government in the form of 15 Chromebook units, 1 LCD projector, 1 router, and 1 display port converter. With the help of ICT from the government, it can be said that schools are pilot projects for the implementation of AKM. This school will organise AKM with an independent status and be boarded by several schools in the vicinity. Thus, despite all the limitations experienced, AKM is still implemented, and preparations are very necessary to do.

This research is not the only one done on AKM. According to studies conducted by Fauziah et al. (2021), educators require greater AKM-related socialisation. Nurhikmah et al. (2021) discovered that educators have a favourable impression of and preparedness for handling AKM. Seventy-five per cent of educators are familiar with the AKM, according to a study by Rokhim et al. (2021). Investigating educators' knowledge and readiness is a primary focus of a few of these research studies. Students with logical-mathematical and visual-spatial forms of verbal linguistics intelligence may solve the mathematical problems in the AKM questions, according to research by Wardani et al. (2020). Sari et al. (2021) found that just 17.65% of students were able to complete numeracy issues. According to research conducted by Cahyanovianty and Wahidin (2021), the majority of students (75%) have a moderate level of numeracy skills. The percentage of pupils who are proficient with statistics remains low, according to research by Irwandi et al. (2022). Kurniawan and Rahadyan (2021) found that out of a sample of twenty pupils, three showed very low numeracy skills, thirteen demonstrated intermediate numeracy skills, and four demonstrated very good numeracy skills. The capacity of students to answer AKM-style questions was the subject of these analyses.

A study by Mustagfiroh (2020) and Yuliandari & Hadi (2020) showed that the AKM policy was used to develop the design and management of learning in schools. A study by Zukhrufurrohmah & Putri (2021) revealed assistance in developing the AKM test instrument for teachers. Meanwhile, Andikayana et al. (2021) research showed the AKM literacy level 2 instrument results for fourth grade. Both studies focused on supporting for students to develop their literacy and numeracy skills through making the AKM instruments.

The study's planned research is different from previous work. The current research is distinct from the prior investigations. Some of the research mentioned above looks at how well students comprehend and prepare for tests, how well they do on AKM-style tests, how well AKM-based classroom management practices work, and how well students can create AKM-style instruments. However, the research has not detailed the many steps elementary schools must take in advance of hosting AKM. This study will be conducted in advance of having to deal with AKM in primary schools and, more specifically, in boarding institutions that also grant AKM independent status. Institutional preparation for AKM is crucial for its successful rollout, which in turn can boost education quality and student achievement. Therefore, this

research aims to detail the measures taken by boarding and independent primary schools to be ready to handle AKM.

2. METHODS

This research was qualitative research with a phenomenological approach.utama (2019) stated that phenomenological research is a way of thinking that emphasises human experiences and how to interpret those experiences. Research on preparation for AKM in primary schools was conducted using a phenomenological type of research to describe the meaning of life experiences experienced by several individuals about AKM.

This research was conducted in a public elementary school in Eromoko District, Wonogiri Regency. The selection of research locations based on data from elementary schools that received ICT assistance from the government as pilot schools for AKM providers. The subjects in this study were principals and teachers. The teacher whose subject of this research was the teacher who had been given an additional task as a proctor. In the National Assessment Standard Operational Procedure (POS AN) what is meant by a proctor is a teacher who has given the authority to handle the technical aspects of the application of the National Assessment implementation in the assessment room (Badan Standar Kurikulum dan Asesmen Pendidikan, 2021).

Data collection techniques used are observation, interviews, and documentation. Data collection techniques with interviews were carried out directly, unstructured and informally using interview guidelines. Observations were made by looking directly at the primary school implementing the AKM with independent status and being boarded. Documentation was done by collecting data on AKM as evidence to strengthen research on AKM preparation.

Data collection techniques used were observation, interviews, and documentation. The data analysis technique used in this study was an interactive model from Miles & Huberman (2007) that consists of data reduction, data display, and conclusion drawing/verification. In this study, source triangulation was used to test the validity of the data by checking data from diverse sources. Data on room and equipment preparation, administration, and students obtained from various sources were compared and described.

3. FINDINGS AND DISCUSSION

The AKM activity is a national activity agenda to obtain as much information as possible about the extent to which students are successful in mastering basic literacy and numeracy competencies. The implementation of AKM has an impact on managerial activities in elementary schools to adapt and prepare immediately. The results and discussion of the research on preparation for facing AKM in elementary schools that have been carried out are as follows:

3.1 Preparation of space and tools

In 2020 the school received ICT equipment assistance from the government in the form of 15 Chromebook units, 1 LCD projector, 1 router, and 1 display port converter. Along with the direction of the principal, the teacher prepares space and tools to deal with AKM. The teacher then prepared 1 AKM room and several waiting rooms. In fact, the elementary school did not own a computer laboratory, so a temporary room must be used for the AKM room. In addition to room preparation, the teacher checked the Exam browser application on 15 government-assisted Chromebook and installed the Proctor browser on the Proctor laptop. The availability of software and hardware is a factor that supports the successful implementation of AKM (Martiyono et al., 2021). All the tools used in the implementation of AKM need to be supported by the availability of an adequate electricity network.

The teacher explained that the availability of electricity and the internet were the factors that determine the smooth implementation of online mode AKM. The online mode completely uses the internet network, so when the electricity is turned off, it will cause internet disturbances, applications for proctors, and AKM participants. In this regard, the school tried to provide electricity and stable

internet so that more than 15 computer devices could use it. This is as conveyed by Retnawati et al. (2017) that face computer-based exams. There must be an effort to provide supporting electronic equipment because they are dealing with obstacles around the internet network and electricity supply.

The school aimed to secure the electricity supply by taking a rented generator. The tool was obtained from the lease because it will only be used during AKM. The findings above are in line with the research of Nasrudin & Maryadi (2018) that the procurement of educational facilities and infrastructure can be carried out in several ways, such as new purchases, own manufacture, leasing, acceptance of grants, and repair of existing goods. Meanwhile, the internet is being pursued by collaborating with service providers to increase the speed up to 50 mb/s. In research by Manguni (2022), it is stated that the duties of primary school teachers have increased because they automatically become the spearhead of the successful implementation of AKM at the elementary level, including reducing the gap in ICT and internet access.

The availability of space, ICT equipment, electricity, and internet access support the effectiveness of the preparation for the implementation of AKM, especially for schools implementing AKM with independent status and which are being boarded. Adri et al. (2021) state that educational facilities and infrastructure are all components that support the course of the educational process directly or indirectly to achieve educational goals. Thus the school seeks to meet the needs of space and equipment so that AKM can be carried out smoothly.

3.2 Document Preparation

Each school must carry out preparations to prepare the administration by conducting a verification and validation process for participants first. Schools that administer AKM with independent status and which are being boarded must ensure that the students' data in Dapodik are correct. There were not more than 30 students of each fifth grader in the Eromoko District. Thus, all students must take AKM without any backup participants. Proctor registered AKM participants through a data pull mechanism from the National Assessment (AN) page for later setting up sessions and printing login cards, attendance lists, and minutes. Martiyono et al. (2021) revealed that the determination of the implementation time, participant data collection, and the determination of place of implementation were included in the assessment preparation stage. The administration was prepared according to procedures and needs, from simulation activities and rehearsals to performances.

Other documents that need to be prepared according to POS AN include a letter of permission from the parents of the participants, several announcements, and room instructions posted at the location. It was very important for administrative completeness to be prepared to be more effective and efficient in achieving the goals that have been determined (Sennen, 2018).

3.3 Student Preparation

AKM does not determine student graduation. However, preparation must still be done by students in order to get maximum results. The school or teacher also needs to accompany the preparation of students who will take part in the AKM. The following are some things that are prepared for students facing AKM.

Socialisation

AKM is a new thing in Indonesian's education field that needs to be socialised to students. In this regard, the school provides AKM socialisation to fifth-grade students. The material for the socialisation provided is participation, a form of questions, time, and place of AKM implementation. The need for socialisation among students to gain knowledge about AKM well has an impact on future implementation. In the research by Artharina et al. (2020), it is stated that the first step in preparing a program is through socialisation. Implementing socialisation at the beginning of the activity can positively impact students' readiness. Sekar et al. (2021) also said that students who have prepared themselves psychologically and environmentally tend to show better results in understanding the

material during learning. With preparation in the form of socialisation in dealing with AKM, it is hoped that students will have the readiness and these activities can be carried out properly.

Book Usage

The preparation of students was done by practising various AKM questions, including multiple-choice, multiple complex choice, matchmaking, short entries, and descriptions. The form of the question was vastly different compared to the UN. AKM questions have special characteristics and contain problems in everyday life, such as cultural, political, economic, legal, and social, which are intended to measure students' ability to solve problems related to literacy, numeracy, and critical reasoning. Students need to be accustomed to or trained to work on complex types of questions in AKM (Widarti et al., 2021). By doing the practice on AKM questions, students can perform assessment simulations as well as recognise various forms of questions.

Students practised questions using a book entitled Focus AKM, published by Erlangga. Students do not receive a grid related to the questions used in the AKM. Students are only provided with one book which contains practice questions (Sari, V. P. & Sayekti, I. C., 2022). With practised questions from books, students are accustomed to dealing with AKM questions, developing critical thinking skills, and dealing with daily life problems. To support students in preparing for AKM, it was necessary to develop a task that can be used to train and develop the cognitive aspects of students with the module (Machromah et al., 2021). Also explained by Handayani et al. (2021) that the activities carried out before the implementation of the AKM were to provide appropriate questions, to study the form of the questions, and to provide modules for the practice of AKM questions. Even though it was not optimal, students practiced questions using the AKM Focus book during distance learning. This is in line with the research of Iman et al. (2021) that the provision of AKM support books and additional learning hours for students cannot be implemented optimally due to the Covid-19 pandemic condition.

Computer training

In addition, in preparation for books, the teacher took the initiative to carry out training on the use of computer equipment for students who will take part in the AKM. This all happened because elementary school students were not familiar with it yet and had limited abilities in using technology, especially Chromebook. This is in line with the research by Maulida & Wirdanengsih (2019), which states that the effort made in preparation for computer-based exams is to provide training or teach students how to use computers.

Training on the use of Chromebook was carried out by teachers at schools during class hours with obeying the health protocols. The school carried out training activities with 5th-grade students to overcome the problem of at least technical guidance for students in operating computers. The exercise aimed to provide understanding and guidance before students carry out AKM simulations and rehearsals. As conveyed by Nurdin et al., (2021), the simulation was expected to provide mental readiness for students.

The Assessment and Learning Center (Pusmenjar) provided a page for AKM simulations. Students can independently access AKM exercises via mobile phones or laptops, while AKM organising schools carry out live exercises using Chromebook. The Wonogiri Regency Education and Culture Office also provided a similar thing to anticipate the crowded access to the Pusmenjar website. AKM readiness in the simulation obtained a percentage of 50%, then continued with exercises so that when the AKM took place, the school obtained a 100% readiness percentage (Mardiana et al., 2021).

Before working on the questions in the simulation, students were expected to fill in their identities first. Students were expected to be able to fill in their identities with the keyboard, although Chromebook has the advantage of a touch screen that is commonly found on mobile phones. Furthermore, students also practice working on various AKM-type questions on the Exam browser until they finish. With this activity, students understand the function of each button and are accustomed to using the application, and can answer questions (Negara et al., 2017). This is also supported by

research by Chendrasari et al. (2019) which stated that the introduction of computers and their use in learning could support computer-based exams smoothly.

4. CONCLUSION

Based on the research that has been done, there are several preparations made by Elementary Schools in dealing with AKM. The preparations carried out by Elementary School included the preparation of rooms and equipment by preparing a waiting room, AKM room, Chromebook, electricity, and stable internet. Administrative preparation was done by printing and pasting the required documents. Students were prepared by providing socialisation, practice about AKM questions using books, and training on the use of computers. The school that administers AKM with independent and boarded status has made some preparations according to the Standard Operating Procedures (POS) of the National Assessment.

REFERENCES

- Adri, F. M., Giatman, M., & Ernawati, E. (2021). Manajemen Pembelajaran pada Masa Pandemi Covid-19 Berbasis Blended Learning. *JRTI (Jurnal Riset Tindakan Indonesia)*, 6(1), 110. <https://doi.org/10.29210/3003875000>
- Andikayana, D. M., Dantes, N., & Kertih, I. W. (2021). Pengembangan Instrumen Asesmen Kompetensi Minimum (AKM) Literasi Membaca Level 2 untuk Siswa Kelas 4 SD. *Jurnal Penelitian Dan Evaluasi Pendidikan Indonesia*, 11(2), 81–92. <https://doi.org/10.23887/jpepi.v11i2.622>
- Artharina, F. P., Handayani, D. E., & Kurniawan, W. (2020). Sosialisasi Implementasi Kurikulum 2013 Di Kelompok Kerja Guru Kecamatan Tahunan Kabupaten Jepara. *Jurnal Pendidikan Dan Pengabdian Masyarakat*, 3(2), 122–125. <https://jurnalkip.unram.ac.id/index.php/JPPM/article/view/1882>
- Badan Standar Kurikulum dan Asesmen Pendidikan. (2021). *Peraturan Kepala Badan Standar, Kurikulum, dan Asesmen Pendidikan Nomor: 030/H/PG.00/2021 Tentang Prosedur Operasional Standar Penyelenggaraan Asesmen Nasional Tahun 2021*.
- Cahyanovianty, A. D., & Wahidin. (2021). Analisis Kemampuan Numerasi Peserta Didik Kelas VIII dalam Menyelesaikan Soal Asesmen Kompetensi Minimum. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 05(02), 1439–1448. <https://j-cup.org/index.php/cendekia/article/view/651>
- Chendrasari, Natalia, C., & Inderawati, M. W. (2019). Pendampingan Persiapan Ujian Nasional Berbasis Komputer (UNBK) MTs Nurul Huda, Desa Sampora, Banten. *Jurnal Bakti Masyarakat Indonesia*, 2(1), 155–161.
- Fauziah, A., Sobari, E. F. D., & Robandi, B. (2021). Analisis Pemahaman Guru Sekolah Menengah Pertama (SMP) Mengenai Asesmen Kompetensi Minimum (AKM). *Edukatif: Jurnal Ilmu Pendidikan*, 3(4), 1550–1558. <https://edukatif.org/index.php/edukatif/article/view/608>
- Handayani, M., Perdana, N. S., & Ukhlumudin, I. (2021). Readiness of Teachers and Students to Take Minimum Competency Assessments. *Proceedings of the International Conference on Educational Assessment and Policy (ICEAP 2020)*, 545(Iceap 2020), 73–79. <https://doi.org/10.2991/assehr.k.210423.067>
- Iman, N., Usman, N., & Bahrin. (2021). Implementasi Kebijakan Sekolah Dasar dalam Menghadapi

- Asesmen Kompetensi Minimum. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 6(2), 250–260. <http://journal.um.ac.id/index.php/jptpp/>
- Irwandi, B., Roza, Y., & Maimunah, M. (2022). Analisis Kemampuan Literasi Statistis Peserta Asesmen Kompetensi Minimum (AKM). *Jurnal Gantang*, 6(2), 177–183. <https://doi.org/10.31629/jg.v6i2.3961>
- Kemdikbud. (2019). *Hasil PISA Indonesia 2018: Akses Makin Meluas, Saatnya Tingkatkan Kualitas*. www.kemdikbud.go.id. <https://www.kemdikbud.go.id/main/blog/2019/12/hasil-pisa-indonesia-2018-akses-makin-meluas-saatnya-tingkatkan-kualitas>
- Kurniawan, I., & Rahadyan, A. (2021). Strategi Pembelajaran Numbered Head Together (NHT) dalam Meningkatkan Minat Belajar Siswa pada Materi Statistika. *Jurnal Didactical Mathematics*, 3(2), 84–91. <https://doi.org/10.31949/dmj.v2i2.2074>
- Machromah, I. U., Utami, N. S., Setyaningsih, R., Mardhiyana, D., & Fatmawati, L. W. S. (2021). Minimum Competency Assessment: Designing Tasks to Support Students' Numeracy. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(14), 3268–3277.
- Manguni, D. W. (2022). Analisis Pengelolaan Sarana Prasarana Asesmen Nasional di SD Negeri Sukomulyo Sleman. *Didaktis: Jurnal Pendidikan Dan Ilmu Pengetahuan*, 22(1), 9–28.
- Mardiana, R., Afaeni, F. N., & Barokah, N. (2021). Implementasi Penggunaan Komputer sebagai Alternatif Media Pembelajaran terhadap Peningkatan Kesiapan Tes AKM bagi Kelas 5 Tingkat Sekolah Dasar atau Sederajat. *Seminar Nasional PGMI*, 143–161. <http://proceeding.iainpekalongan.ac.id/index.php/semair>
- Martiyono, Sulastini, R., & Handajani, S. (2021). Asesmen Kompetensi Minimal (AKM) dalam Mewujudkan Sekolah Efektif di SMP Negeri 1 Kebumen Kabupaten Kebumen Perspektif Manajemen Kurikulum dan Sistem Penilaian. *Cakrawala: Jurnal Manajemen Pendidikan Islam Dan Studi Sosial*, 5(2), 92–110. <https://doi.org/10.33507/cakrawala.v5i2.397>
- Maulida, K., & Wirdanengsih. (2019). Upaya Yang Dilakukan Sekolah di Daerah Terpencil Menghadapi Kebijakan Ujian. *Jurnal Perspektif: Jurnal Kajian Sosiologi Dan Pendidikan*, 2(3), 243–250.
- Meriana, T., & Murniarti, E. (2021). Analisis Pelatihan Asesmen Kompetensi Minimum. *Jurnal Dinamika Pendidikan*, 14(2), 110–116. <https://doi.org/https://doi.org/10.51212/jdp.v14i2.7>
- Miles, M. B., & Huberman, A. M. (2007). *Analisis Data Kualitatif*. UI Press.
- Mustagfiroh. (2020). Memanfaatkan Hasil Asesmen Kompetensi Minimum (AKM) untuk Mendesain Multimodal Learning. *Jurnal Guru Inovatif*, 2(1), 48–62. <https://jurnalmadaris.org/index.php/md/article/view/60>
- Nasrudin, & Maryadi. (2018). Manajemen Sarana dan Prasarana Pendidikan dalam Pembelajaran di SD. *Jurnal Manajemen Pendidikan*, 13(1), 15–23.
- Negara, H. R. P., Santosa, F. H., & Bahri, S. (2017). Peningkatan Kompetensi ICT Guna Simulasi UNBK Siswa MTs Nurul Ihsan Kecamatan Jonggat Kabupaten Lombok Tengah. *JMM (Jurnal Masyarakat Mandiri)*, 1(1), 1–9. <https://doi.org/10.31764/jmm.v1i1.7>
- Nurdin, Anhusadar, L., Herlina, & Nurhalimah, S. (2021). Strategi Kepala Sekolah dalam Pelaksanaan Ujian Nasional Berbasis Komputer (UNBK) di Sekolah Menengah Pertama. *Jurnal Kajian Ilmu*

Kependidikan, 14(1), 1–13.

- Nurhikmah, Hidayah, I., & Kadarwati, S. (2021). Persepsi dan Kesiapan Guru dalam Menghadapi Asesmen Kompetensi Minimum. *CJPE: Cokroaminoto Journal of Primary Education*, 4(1), 78–83. <https://e-journal.my.id/cjpe>
- Retnawati, H., Hadi, S., Nugraha, A. C., Arlinwibowo, J., Sulistyaningsih, E., Djidu, H., Apino, E., & Iryanti, H. D. (2017). Implementing The Computer-Based National Examination in Indonesian Schools: The Challenges and Strategies. *Problems of Education in the 21st Century*, 75(6), 612–633. <https://doi.org/10.33225/pec/17.75.612>
- Rohim, D. C., Rahmawati, S., & Ganestri, I. D. (2021). Konsep Asesmen Kompetensi Minimum Meningkatkan Kemampuan Literasi Numerasi Sekolah Dasar untuk Siswa. *Jurnal Varidika*, 33(1), 54–62. <https://doi.org/10.23917/varidika.v33i1.14993>
- Rokhim, D. A., Rahayu, B. N., Alfiah, L. N., Peni, R., Wahyudi, B., Wahyudi, A., Sutomo, S., & Widarti, H. R. (2021). Analisis Kesiapan Peserta Didik dan Guru pada Asesmen Nasional (Asesmen Kompetensi Minimum, Survey Karakter, dan Survey Lingkungan Belajar). *Jurnal Administrasi Dan Manajemen Pendidikan*, 4(1), 61. <https://doi.org/10.17977/um027v4i12021p61>
- Sari, D. R., Rijal, M., & Muharram, W. (2021). Analisis Kemampuan Siswa SD dalam Menyelesaikan Soal Geometri Asesmen Kompetensi Minimum. *Jurnal Sekolah Dasar*, 6(2), 87–93. <https://doi.org/10.36805/jurnalsekolahdasar.v6i2.1750>
- Sari, V. P., & Sayekti, I. C. (2022). Evaluasi Pelaksanaan Asesmen Kompetensi Minimum (AKM) pada Kompetensi Dasar Literasi Membaca Peserta Didik Sekolah Dasar. *Jurnal Basicedu*, 6(3), 5237–5243. <https://doi.org/https://doi.org/10.31004/basicedu.v6i3.2907> ISSN
- Sekar, G., Purnomo, A., & Wiradimadja, A. (2021). Kesiapan Belajar Jarak Jauh Siswa SMP di Kota Malang/Distance Learning Readiness of Junior High School Students in Malang City. *J-PIPS (Jurnal Pendidikan Ilmu Pengetahuan Sosial)*, 7(2), 80–91. <https://doi.org/10.15548/jpips.v7i2.11669>
- Sennen, E. (2018). Mengenal Administrasi Guru di Sekolah. *Jurnal Inovasi Pendidikan Dasar*, 2(1), 72–76.
- Sutama. (2019). *Metode Penelitian Pendidikan: Kuantitatif, Kualitatif, PTK, Mix Method, R&D*. Sukoharjo: CV. Jasmine.
- Wardani, A. D., Fathani, A. H., & Alifiani. (2020). Analisis Kemampuan Pemecahan Masalah Matematis Peserta Didik dalam Menyelesaikan Soal Asesmen Kompetensi Minimum (AKM) Ditinjau dari Kecerdasan Majemuk. *Jp3*, 5(2), 67–74. <http://riset.unisma.ac.id/index.php/jp3/article/view/12486>
- Widarti, H. R., Rokhim, D. A., Septiani, M. O., & Dzikrulloh, M. H. A. (2021). Identification of Science Teacher Practices and Barriers in Preparation of Minimum Competency Assessment in the Covid-19 Pandemic Era. *Orbital: Electron J. Chem*, 14(1), 63–67.
- Wijaya, E. Y., Sudjimat, D. A., & Nyoto, A. (2016). Transformasi Pendidikan Abad 21 sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global [The Transformation of 21st Century Education as a Demand for Human Resource Development in The Global Era]. *Prosiding Seminar Nasional Pendidikan Matematika 2016*, 1, 263–278. <https://core.ac.uk/download/pdf/297841821.pdf>
- Yuliandari, Ria Norfika & Hadi, S. (2020). Implikasi Asesmen Kompetensi Minimum Dan Survei

Karakter Terhadap Pengelolaan Pembelajaran SD. *Jurnal Kependidikan Dasar Islam Berbasis Sains*, 5(2), 203–219. <https://doi.org/10.24832/jpnk.v16i2.446>

Zukhrufurrohmah, Z., & Putri, O. R. U. (2021). Pendampingan Pengembangan Instrumen Berciri Literasi Numerasi dalam Menyiapkan AKM pada Guru SD. *JPMB: Jurnal Pemberdayaan Masyarakat Berkarakter*, 4(2), 249–260. <http://journal.rekarta.co.id/index.php/jpmb/article/view/379%0Ahttps://journal.rekarta.co.id/index.php/jpmb/article/download/379/368>