International Journal of Multicultural and Multireligious Understanding

http://ijmmu.com
editor@ijmmu.com
ISSN 2364-5369
Volume 11, Issue 8
August, 2024
Pages: 827-836

The Importance of Conducting Summative Assessment Analysis in Independent Curriculum Mathematics Learning for Teachers

Firza Eka Febrianto; Agus Maman Abadi; Kana Hidayati

Master of Mathematics Education, Faculty of Mathematics and Science, Yogyakarta State University, Yogyakarta, Indonesia

http://dx.doi.org/10.18415/ijmmu.v11i8.6135

Abstract

The Merdeka Curriculum's approach to assessment emphasizes skill development and in-depth comprehension in addition to measuring academic success. Summative assessment analysis is a crucial technique for enhancing teaching and learning in the context of the Merdeka Curriculum's mathematics curriculum, serving as both an assessment and an improvement tool. This study investigates how important it is for instructors to analyze summative assessments while they teach autonomous curriculum mathematics. A literature study approach is used in this investigation. The study's findings demonstrate that, in addition to being the instructor's duty, summative assessment analysis of mathematics learning in the Independent Curriculum is crucial to raise standards for mathematics instruction, gauge student progress, and enhance teaching effectiveness.

Keywords: *Mathematics Education; Independent Curriculum; Summative assessment*

Introduction

In the world of Education, providing feedback in the form of assessment is an important mechanism to encourage continuous learning and assess students' understanding of the desired goals. It involves providing an in-depth analysis or evaluation of an action from one person to another. This process helps educators and learners understand what is going well and where improvements can be made, ultimately improving the teaching and learning experience. By receiving feedback, learners can identify areas of strength and areas that need development, resulting in more effective learning outcomes (Daka et al., 2021).

Mathematics learning in the context of the Independent Curriculum emphasizes a holistic approach, where the main goal is to ensure that each student gains a solid understanding of mathematical concepts and can apply them in the context of daily life. In this learning process, assessment plays a crucial role as an evaluation tool to measure student understanding and learning effectiveness (Febriana et al., 2023). Assessment in the Independent Curriculum is not only focused on measuring academic achievement but also on developing skills and in-depth understanding. Among the various forms of assessment, summative assessment analysis is important in helping teachers understand the extent to

which learning objectives have been achieved. In this context, it is important to understand the background and justification for conducting summative assessment analysis in mathematics learning of the Independent Curriculum for teachers (Azid et al., 2022).

First of all, summative assessment analysis allows teachers to thoroughly evaluate students' progress in understanding the mathematical concepts being taught. Daka et al. (2021) argue that by analyzing the assessment results, teachers can identify areas where students may be struggling and design appropriate remedial strategies. In addition, summative assessment analysis also helps in evaluating the effectiveness of learning and the curriculum used. Teachers can assess the extent to which the curriculum successfully achieves learning objectives, as well as improve learning methods based on the findings of the analysis.

Furthermore, the results of summative assessment analysis also provide valuable information for teachers in providing feedback to students. Constructive feedback allows students to understand their strengths and weaknesses in understanding the math material and identify steps that need to be taken to improve their understanding. Finally, summative assessment analysis also plays an important role in the teacher accountability process. By analyzing the results of the assessment, teachers can show concrete evidence of student progress to interested parties, such as parents and teacher administration at school (Marzoan, 2024).

The results of the preliminary study show that some mathematics teachers at the junior high school level in Belitung Regency still do not conduct a good analysis of daily assessments in the 2013 Curriculum, which has now changed to summative assessments in the Independent Curriculum. Some teachers only make the analysis as a complement to the administration without paying attention to the essence and important role of the summative assessment analysis. They lack the understanding that this analysis is not only aimed at fulfilling administrative obligations but also to provide a comprehensive picture of students' learning progress. By ignoring in-depth analysis, teachers will miss out on opportunities to identify students' areas of difficulty, design effective remedial strategies, and provide constructive feedback (Munzur, 2014). As a result, the maximum potential of summative assessment as a tool for evaluating and improving the quality of learning is not achieved. This condition shows an urgent need to increase teachers' understanding and awareness of the importance of summative assessment analysis in the context of the Independent Curriculum in order to ensure that learning objectives can be achieved optimally.

In the context of mathematics learning in the Independent Curriculum, summative assessment analysis is not just an evaluation tool or even an administrative complement but also an important instrument in improving the quality of learning and learning. By understanding the importance of conducting summative assessment analysis, teachers can optimize their efforts in helping students reach their maximum potential in understanding mathematics. This study aims to examine "The Importance of Conducting Summative Assessment Analysis in Independent Curriculum Mathematics Learning for Teachers".

Research Methods

This study uses the literature study method, which is an appropriate research approach to explore a deep understanding of a topic, especially in the context of theoretical and conceptual needs (Rahmani et al., 2023). The topic of this study is the importance of summative assessment analysis in mathematics learning in the Independent Curriculum for teachers. Through this literature study approach, the research seeks to collect and analyze a variety of relevant sources, including books, scientific journals, articles, and educational policy documents that address related topics. Thus, this research is expected to be able to produce a comprehensive understanding of the importance of summative assessment analysis in mathematics learning in the Independent Curriculum for teachers. The results of this literature study will

provide valuable insights for education practitioners and policymakers in an effort to improve the quality of mathematics learning at the school level. In addition, this research also aims to assist teachers in formulating more effective strategies and policies based on strong and in-depth theoretical findings.

Result and Discussion

This article analyzes two important aspects of Education in Indonesia, namely the Independent Curriculum for teachers and summative assessment in mathematics learning. The Independent Curriculum is designed to empower teachers in crafting a curriculum that is more relevant and contextual, allowing them to accommodate each student's unique needs and potential. With this freedom, teachers can design teaching methods that are more innovative and responsive to changing times, so that learning becomes more meaningful and connected to students' daily lives.

Summative assessment, as an integral part of the learning process, serves to measure student achievement comprehensively. Through this assessment, teachers can get a clear picture of the student's academic development, as well as identify areas that need further attention. Effective summative assessment not only assesses the final outcome of learning but also provides constructive feedback for students to improve their understanding.

With a more flexible and student-centred approach, the Independent Curriculum and summative assessment are expected to improve the quality of Education in Indonesia. This approach emphasizes not only academic achievement but also the development of critical and creative skills that are in high demand in the modern era. Through proper implementation, it is hoped that the challenges and needs of Education in Indonesia can be answered so that human resources can be produced for the Golden Indonesia 2045 generation.

This article analyzes two important aspects of Education in Indonesia, namely the Independent Curriculum for teachers and summative assessment in mathematics learning. The Independent Curriculum is designed to empower teachers in crafting a curriculum that is more relevant and contextual, allowing them to accommodate each student's unique needs and potential. With this freedom, teachers can design teaching methods that are more innovative and responsive to changing times, so that learning becomes more meaningful and connected to students' daily lives.

Summative assessment, as an integral part of the learning process, serves to measure student achievement comprehensively. Through this assessment, teachers can get a clear picture of the student's academic development, as well as identify areas that need further attention. Effective summative assessment not only assesses the final outcome of learning but also provides constructive feedback for students to improve their understanding.

With a more flexible and student-centred approach, the Independent Curriculum and summative assessment are expected to improve the quality of Education in Indonesia. This approach emphasizes not only academic achievement but also the development of critical and creative skills that are in high demand in the modern era. Through proper implementation, it is hoped that the challenges and needs of Education in Indonesia can be answered so that human resources can be produced for the Golden Indonesia 2045 generation.

1. Independent Curriculum for Teachers

At the end of 2019, Minister Nadiem Makarim established the Independent Curriculum as an improvement of the 2013 Curriculum. This determination was inaugurated through the Decree of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 56/M/2022, which contains guidelines for the implementation of the Independent Curriculum in an effort

to recover learning in 2022. This decision is an integral part of an overall effort to improve the educational curriculum in Indonesia, which aims to present an education system that is more adaptive and responsive to the needs of the times.

The implementation of the Independent Learning Curriculum in Indonesia still requires a lot of time and careful preparation. The implementation of this curriculum will bring significant changes in the learning system, demanding adjustments from teachers, students, and the entire education ecosystem (Pantiwati et al., 2023). Teachers need to develop new competencies in designing more flexible and student-centred learning, while students are expected to be more active in the learning process. In addition, infrastructure such as educational resources and technology must be prepared to support this transition. Although challenging, these changes have the potential to improve the quality of Education by emphasizing relevant and contextual learning in accordance with the needs of the times.

This step not only aims to improve the technical aspects of the curriculum but also to achieve the long-term goal of building a more advanced, sovereign, independent, and characterful Indonesia. The implementation of the Independent Curriculum is expected to produce Pancasila students who have various superior competencies. According to Mazida et al. (2023), Students are expected to be critical individuals in thinking, creative in solving problems, independent in learning, and having faith and fear in God Almighty. In addition, characters with noble character, able to work together in mutual cooperation, and have insight into global diversity are also the main focus in shaping the nation's next generation through this curriculum.

With the Independent Curriculum, it is hoped that learning in Indonesia will become more relevant to today's global needs and challenges. The implementation of this curriculum is expected to accommodate various learning styles of students, support the development of talents and interests, and prepare students to face the dynamics of the world of work and life in the future. Through this policy, it is hoped that the education system in Indonesia will not only focus on academic achievement but also on holistic development that includes emotional, social, and spiritual aspects so as to create balanced individuals who contribute positively to society and the nation.

The Independent Curriculum is an educational concept introduced by the Indonesian government with the aim of providing more flexibility to schools and teachers in designing curricula and learning methods that are more in line with local needs and student conditions (Aegustinawati & Sunarya, 2023). It aims to increase the relevance of learning to everyday life, promote creativity, and reduce excessive academic pressure.

In the context of mathematics learning, the Independent Curriculum can provide opportunities for teachers to be more flexible in designing interesting and relevant learning experiences for students. Teachers can opt for a more contextual and project-based approach, allowing students to see how math relates to the real world. Additionally, teachers can adjust the curriculum to accommodate diverse student learning styles (Mustaghfiroh, 2020). In 2024, it is hoped that the Independent Curriculum will continue to develop and be implemented more widely in various schools in Indonesia. Teachers and educational institutions are expected to be actively involved in adopting and adapting to this approach to improve the quality of mathematics education in Indonesia.

In the practice of the Independent curriculum, teachers can play an active role in the development of the curriculum in their school units that are more in accordance with the needs and context of students in their schools (Adiyono et al., 2023). So that this is in accordance with the role of teachers as professional educators, namely becoming a learning centre to improve the quality of Education (Virgiyanti et al., 2023). They can work closely with fellow teachers, principals, parents, and the local community to design a curriculum that takes into account the cultural, social, and environmental characteristics of the environment in which students learn. Teachers can also apply a more contextual and problem-based approach to learning, which allows students to see the connection between the subject

matter and their daily lives. This includes presenting math material with relevant and situational examples that arouse students' interest and understanding.

Furthermore, teachers can use formative assessments continuously to measure student understanding throughout learning (Shin et al., 2022). By monitoring student progress on a regular basis, teachers can tailor their instruction according to the individual needs of students and provide appropriate feedback to help them achieve their learning goals. At the school level, teachers can collaborate with curriculum development teams to exchange experiences, compile learning resources, and develop effective learning strategies. This allows for the exchange of ideas and best practices and strengthens the learning community among educators. In addition, according to studies by Sancar et al. (2021), Teachers can participate in training and professional development programs organized by the government, educational institutions, or professional organizations to improve their understanding of the concepts and practices of the Independent Curriculum. This includes training on project-based learning design, authentic assessment, and the use of technology in learning.

By implementing practices like these, teachers in Indonesia can leverage the concept of the Independent Curriculum to create a more meaningful and relevant learning experience for their students, as well as improve the overall quality of mathematics education.

At the end of 2019, Minister Nadiem Makarim established the Independent Curriculum as an improvement of the 2013 Curriculum. This determination was inaugurated through the Decree of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 56/M/2022, which contains guidelines for the implementation of the Independent Curriculum in an effort to recover learning in 2022. This decision is an integral part of an overall effort to improve the educational curriculum in Indonesia, which aims to present an education system that is more adaptive and responsive to the needs of the times.

The implementation of the Independent Learning Curriculum in Indonesia still requires a lot of time and careful preparation. The implementation of this curriculum will bring significant changes in the learning system, demanding adjustments from teachers, students, and the entire education ecosystem (Pantiwati et al., 2023). Teachers need to develop new competencies in designing more flexible and student-centred learning, while students are expected to be more active in the learning process. In addition, infrastructure such as educational resources and technology must be prepared to support this transition. Although challenging, these changes have the potential to improve the quality of Education by emphasizing relevant and contextual learning in accordance with the needs of the times.

This step not only aims to improve the technical aspects of the curriculum but also to achieve the long-term goal of building a more advanced, sovereign, independent, and characterful Indonesia. The implementation of the Independent Curriculum is expected to produce Pancasila students who have various superior competencies. According to Mazida et al. (2023), students are expected to be critical individuals in thinking, creative in solving problems, independent in learning, and have faith and fear in God Almighty. In addition, characters with noble character, able to work together in mutual cooperation, and have insight into global diversity are also the main focus in shaping the nation's next generation through this curriculum.

With the Independent Curriculum, it is hoped that learning in Indonesia will become more relevant to today's global needs and challenges. The implementation of this curriculum is expected to accommodate various learning styles of students, support the development of talents and interests, and prepare students to face the dynamics of the world of work and life in the future. Through this policy, it is hoped that the education system in Indonesia will not only focus on academic achievement but also on holistic development that includes emotional, social, and spiritual aspects so as to create balanced individuals who contribute positively to society and the nation.

The Independent Curriculum is an educational concept introduced by the Indonesian government with the aim of providing more flexibility to schools and teachers in designing curricula and learning methods that are more in line with local needs and student conditions (Aegustinawati & Sunarya, 2023). It aims to increase the relevance of learning to everyday life, promote creativity, and reduce excessive academic pressure.

In the context of mathematics learning, the Independent Curriculum can provide opportunities for teachers to be more flexible in designing interesting and relevant learning experiences for students. Teachers can opt for a more contextual and project-based approach, allowing students to see how math relates to the real world. In addition, teachers can adjust the curriculum to accommodate the diverse learning styles of students (Mustaghfiroh, 2020). In 2024, it is hoped that the Independent Curriculum will continue to develop and be implemented more widely in various schools in Indonesia. Teachers and educational institutions are expected to be actively involved in adopting and adapting to this approach to improve the quality of mathematics education in Indonesia.

In the practice of the Independent curriculum, teachers can play an active role in the development of the curriculum in their school units that are more in line with the needs and context of students in their schools (Adiyono et al., 2023). So that this is in accordance with the role of teachers as professional educators, namely becoming a learning centre to improve the quality of Education (Virgiyanti et al., 2023). They can work closely with fellow teachers, principals, parents, and the local community to design a curriculum that takes into account the cultural, social, and environmental characteristics of the environment in which students learn. Teachers can also apply a more contextual and problem-based approach to learning, which allows students to see the connection between the subject matter and their daily lives. This includes presenting math material with relevant and situational examples that arouse students' interest and understanding.

Furthermore, teachers can use formative assessments continuously to measure student understanding during learning (Shin et al., 2022). By monitoring student progress on a regular basis, teachers can tailor their instruction according to the individual needs of students and provide appropriate feedback to help them achieve their learning goals. At the school level, teachers can collaborate with curriculum development teams to exchange experiences, compile learning resources, and develop effective learning strategies. This allows for the exchange of ideas and best practices and strengthens the learning community among educators. In addition, according to a study by Sancar et al. (2021), teachers can participate in training and professional development programs organized by the government, educational institutions, or professional organizations to improve their understanding of the concept and practice of the Independent Curriculum. This includes training on project-based learning design, authentic assessment, and the use of technology in learning.

By implementing practices like these, teachers in Indonesia can leverage the concept of the Independent Curriculum to create a more meaningful and relevant learning experience for their students, as well as improve the overall quality of mathematics education.

2. Summative Assessment for Teachers

A summative assessment is an assessment that is carried out at the end of a certain learning period, such as the end of the material, the end of the semester or the end of the school year. Summative assessment in mathematics learning is a final evaluation process that aims to measure the extent to which students have achieved learning goals in a certain period. According to Gaspersz et al. (2023) revealed that summative assessment serves to provide a comprehensive picture of students' academic achievements. Some important aspects in the summative assessment of mathematics learning revealed by Iannone & Simpson (2022) are as follows.

Assessment Objectives: Summative assessments should be based on pre-defined learning objectives. These goals must be clear, measurable, and in accordance with the competency standards set in the curriculum.

Scope of Material: Summative assessment should include all material that has been taught during the learning period. This ensures that students are comprehensively tested on their understanding of the various mathematical concepts that have been learned.

Question Diversity: It is important to present different types of questions in summative assessment, including multiple-choice questions, essays, open-ended questions, and others. The diversity of questions helps evaluate students' skills and understanding more holistically.

Suitability of Difficulty Level: The questions in the summative assessment must be adjusted to the level of difficulty that is appropriate to the grade level and the level of student understanding. This ensures that the assessment provides an accurate picture of the student's ability to apply the mathematical concepts that have been learned.

Use of Clear Assessment Criteria: It is important to have clear and transparent assessment criteria so that students understand how they will be assessed. These criteria can include accuracy of answers, understanding of concepts, problem-solving skills, and clarity in explaining mathematical thinking.

Constructive Feedback: After conducting the assessment, it is important for teachers to provide constructive feedback to students. This feedback should identify the student's strengths and provide specific suggestions to improve their understanding of mathematics.

Utilization of Assessment Results: The results of summative assessments should be used effectively to plan for the next lesson. Teachers can use the assessment data to tailor their learning, provide additional assistance to students in need, or adjust the curriculum if needed.

By paying attention to these aspects, summative assessment in mathematics learning can be an effective measurement tool to measure student achievement and guide the learning process in a better direction.

Summative assessment analysis is one of the administrations that must be completed by teachers in carrying out their duties. Sennen (2018) Consider that completing summative assessment analysis in teacher administration is useful for supervisors in seeing the success of teachers in providing learning in the classroom. So that they can evaluate the learning that has been implemented.

The importance of conducting summative assessment analysis on mathematics learning in the Independent Curriculum for teachers includes several key aspects that need to be considered. Summative assessment analysis allows teachers to conduct a thorough evaluation of students' achievement in understanding mathematical concepts. This process helps in identifying students' level of understanding and areas where they may need additional help (Sihotang et al., 2022).

Through summative assessment analysis, teachers can evaluate the effectiveness of the learning they provide in the classroom (Iannone & Jones, 2017). Teachers can review the learning strategies used and adjust them to better suit the learning needs of students. It helps in improving the quality of learning and learning outcomes. Summative assessment analysis also helps in evaluating the curriculum used in learning mathematics of the Independent Curriculum. Teachers can assess whether the curriculum covers all the necessary concepts and whether the approach used is successful in achieving learning goals. The results of summative assessment analysis provide a basis for providing constructive feedback to students. It helps students understand their strengths and weaknesses and provides direction on how to improve their understanding of math.

Summative assessment analysis is also part of the teacher accountability process (Olson, 2022). By analyzing the results of the assessment, teachers can show students' progress to interested parties, such as parents and school administration. The results of summative assessment analysis can be used as a basis for decision-making related to mathematics learning in the classroom. Teachers can determine whether it is necessary to provide additional assistance to students who are experiencing difficulties or provide additional challenges to students who have achieved a high level of understanding (Andini & Prabawanto, 2020).

Thus, summative assessment analysis in mathematics learning of the Independent Curriculum for teachers is not only important for the completeness of teacher administration and evaluating student achievement but also to improve learning effectiveness, adjust the curriculum, provide feedback to students, ensure teacher accountability, and assist in decision-making related to mathematics learning in the classroom.

Conclusions and Suggestion

The conclusion of the importance of conducting summative assessment analysis on mathematics learning in the Independent Curriculum for teachers is that this process is not only an obligation but also a key element in improving the quality of mathematics education as a whole. Through summative assessment analysis, teachers can gain in-depth insights into student progress, learning effectiveness, and the success of the curriculum implemented. Summative assessment analysis allows teachers to measure the extent to which students have achieved predetermined math learning goals. It helps in identifying students' strengths and weaknesses as well as gaining a better understanding of their level of comprehension (Alareifi, 2023). By analyzing the results of the assessment, teachers can show students' progress to interested parties, such as parents, school administrators, and other stakeholders.

Thus, conducting summative assessment analysis on mathematics learning in the Independent Curriculum is not only the responsibility of teachers and a complement to the administration but also an important effort to improve the effectiveness of learning, measure student achievement, and ensure a better quality of mathematics education.

References

Adiyono, A., Julaiha, J., & Jumrah, S. (2023). Perubahan Pengembangan Kurikulum Pendidikan Agama Islam Di Madrasah Aliyah Negeri Insan Cendikia Paser. IQRO: Journal of Islamic Education, 6(1), 33–60. https://doi.org/10.24256/iqro.v6i1.4017.

Aegustinawati, & Sunarya, Y. (2023). Analisis Implementasi Kurikulum Merdeka dalam Mengatasi Retensi Kelas di Sekolah Menengah Atas. Jurnal Paedagogy, 10(3), 759. https://doi.org/10.33394/jp.v10i3.7568.

Alareifi, R. M. (2023). Analysis of MCQs in Summative Exam in English: Difficulty Index, Discrimination Index and Relationship between them. Journal of Educational and Human Sciences, 20, 124–135. https://doi.org/10.33193/jeahs.20.2023.325.

Andini, M., & Prabawanto, S. (2020). Analysis of Remedial and Enrichment of Mathematics Teaching in a Junior High School in Bandung. Internasional Conference on Elemtary Education, 2(1), 1245–1254.

Azid, N., Ali, R. Md., El Khuluqo, I., Purwanto, S. E., & Susanti, E. N. (2022). Higher order thinking skills, school-based assessment and students' mathematics achievement: Understanding teachers'

thoughts. International Journal of Evaluation and Research in Education (IJERE), 11(1), 290. https://doi.org/10.11591/ijere.v11i1.22030.

Daka, H., Mulenga-Hagane, M. L., Mukalula-Kalumbi, M., & Lisulo, S. (2021). Making summative assessment effective. European Modern Studies Journal, 5(4), 224–237.

Febriana, R., Sugiman, S., & Wijaya, A. (2023). Analysis of the Implementation of Differentiated Learning in the Implementation of the Independent Curriculum in Middle School Mathematics Lessons. International Journal Of Humanities Education and Social Sciences (IJHESS), 3(2). https://doi.org/10.55227/ijhess.v3i2.549.

Gaspersz, M., Aw, S., & Gaspersz, N. (2023). Model evaluasi formatif-sumatif terhadap hasil belajar matematika melalui pembelajaran berdiferensiasi pada peserta didik sma. Jurnal Magister Pendidikan Matematika (JUMADIKA), 5(1), 1–7. https://doi.org/10.30598/jumadikavol5iss1year2023page1-7.

Iannone, P., & Jones, I. (2017). Special issue on summative assessment. Research in Mathematics Education, 19(2), 103–107. https://doi.org/10.1080/14794802.2017.1334578.

Iannone, P., & Simpson, A. (2022). How we assess mathematics degrees: The summative assessment diet a decade on. Teaching Mathematics and Its Applications: An International Journal of the IMA, 41(1), 22–31. https://doi.org/10.1093/teamat/hrab007.

Marzoan, M. (2024). Implementation of the Merdeka Curriculum to Strengthen Literacy Skills in Early Grades of Elementary Schools. Jurnal Ilmiah Mandala Education, 10(1), 272. https://doi.org/10.58258/jime.v10i1.6692.

Mazida, M., Wakhyudin, H., & Wardana, M. Y. S. (2023). Studi analisis guru kelas dalam pelaksanaan pembelajaran kurikulum merdeka di sd negeri 02 Podo Kabupaten Pekalongan. Indonesian Journal of Elementary School, 3(1), 133–142.

Munzur, Z. (2014). Reflections on the Impact of Absence of Summative Assessment on Students' Motivation and Learning. Journal of Education and Future, 6, 71–89.

Mustaghfiroh, S. (2020). Konsep "Merdeka Belajar" Perspektif Aliran Progresivisme John Dewey. Jurnal Studi Guru Dan Pembelajaran, 3(1), 141–147. https://doi.org/10.30605/jsgp.3.1.2020.248.

Olson, A. M. (2022). Summative Assessment. In Summative Assessment. Routledge. https://doi.org/10.4324/9781138609877-REE63-1.

Pantiwati, Y., Chamisijatin, L., Zaenab, S., & Aldya, R. F. (2023). Characteristics of Learning Assessment Towards Implementation of Merdeka Learning Curriculum. Jurnal Penelitian Dan Pengkajian Ilmu Pendidikan: E-Saintika, 7(1), 115–128. https://doi.org/10.36312/esaintika.v7i1.1125.

Rahmani, S., Hashimi, S. A., & Bayan, E. (2023). The Value of Research Methods in Literary Studies. International Journal of Current Science Research and Review, 06(03), 2036–2040. https://doi.org/10.47191/ijcsrr/V6-i3-22.

Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. Teaching and Teacher Education, 101, 103305. https://doi.org/10.1016/j.tate.2021.103305.

Sennen, E. (2018). Mengenal administrasi guru di sekolah. JIPD (Jurnal Inovasi Pendidikan Dasar), 2(1), 72–76. https://doi.org/10.36928/jipd.v2i1.257.

Shin, J., Chen, F., Lu, C., & Bulut, O. (2022). Analyzing students' performance in computerized formative assessments to optimize teachers' test administration decisions using deep learning frameworks. Journal of Computers in Education, 9(1), 71–91. https://doi.org/10.1007/s40692-021-00196-7.

Sihotang, M., Utari, U., & Sihotang, T. (2022). The Impact of Evaluation Methods on Students' Learning Achievement in Primary School Mathematics Education: A Mixed-Methods Study. Jurnal Ilmu Pendidikan Dan Humaniora, 11(1), 1–17. https://doi.org/10.35335/jiph.v11i1.12.

Virgiyanti, D., Dewi, I. K., & Zuliani, R. (2023). Peningkatan Kompetensi Guru dalam Implementasi Kurikulum Merdeka (IKM) melalui in House Training (IHT) di SDIT Darul Ulum. ANWARUL, 3(4), 751–766. https://doi.org/10.58578/anwarul.v3i4.1335.

Copyrights