Merdeka Mengajar: an Ultimate Platform for Teachers' Competence Development

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Abstract - This research is a literature study that aims to explain the usefulness of the features of the Merdeka Mengajar Platform to develop teacher competencies. The data sources of this research were obtained from the Merdeka Mengajar Platform and research articles in journals. The analysis used in this research was content analysis, which began with data making, then continued with abductively inferring contextual phenomena, and ended with narrating the answer to the research question. The government launched the Merdeka Mengajar (PMM) platform to assist teachers in developing their competence. This platform allows teachers to carry out self-development anywhere and anytime. The features owned by PMM can help develop the four competencies teachers have. Personal competence and social competence can be developed in the Community Features and Real Action in Self-Training. Pedagogical competence can be developed through the curriculum introduction feature, student assessment, teaching tools, self-training, inspirational videos, and proof of work. Finally, professional competence can be developed through student assessment, teaching tools, and self-training features.

Keywords: Merdeka Mengajar, teachers, competencies, development

I. INTRODUCTION

Teachers are one of the cornerstones of education. Teachers are in charge of preparing students to deal with various challenges that are increasingly complex today [1]. In this case, teachers have a role in delivering quality education and learning to students [2–7]. It is supported by research by [8], which shows that from their survey of 600 teachers, professionalism is one of the most critical factors influencing the quality of education.

Teachers encounter various challenges in the teaching and learning process. These challenges have increased dramatically as the COVID-19 pandemic has affected the world, and education is one of the impacted sectors. Teachers are expected to adapt by transitioning to online activities, including teaching [9, 10]. Another issue that emerged during the pandemic is teachers' lack of pedagogical competence and professionalism [11]. There is also the issue of teachers often having limited resources to support their professional development [12].

One part of developing teacher professionalism is self-development. Self-development is one of the duties that teachers must carry out [13]. Such activity aims to enhance the quality of education and learning [14–17]. Self-development is also an indicator of work productivity that can assist teachers as agents of change in the world of education [18, 19]. There are various ways to self-development, namely by attending training, seminars, workshops, courses, and so on [15, 16].

Throughout the pandemic, numerous digital platforms have appeared to support teachers' self-development, with more and more teachers turning to online

platforms that provide self-development opportunities [12]. These platforms impact the quality of teachers' teaching as teachers use various resources to plan and improve their competencies and learning [20, 21].

The Indonesian government, during the pandemic, has not stayed silent. It has launched several platforms to help teachers' self-development, including the Merdeka Mengajar platform (previously named Guru Berbagi). This platform allows teachers, government, and education experts to collaborate and share ideas and innovations [15]. The Merdeka Mengajar (PMM) platform can assist teachers in planning and implementing innovative learning [22]. PMM was launched to improve teacher professionalism [23]. In conclusion, PMM is a very beneficial platform for teachers.

Of the many benefits and impacts that PMM can offer, information or research related to PMM is still minimal [15]. [15]'s research discusses PMM and Guru Belajar and how they perceive it. However, they did not discuss in detail its features, especially the benefits obtained from these features related to teachers' competencies.

Another issue that arises is the lack of use of PMM by teachers. As of September on gurubelajardanberbagi.kemdikbud.go.id, out of more than 1,400,000 teacher users, there were only 671,644 and 14,082 posts related to lesson plans and articles. In addition, there are less than 1,500 posts related to videos and actual actions taken by teachers.

Based on the previously mentioned problems, researchers consider it necessary to explain what features are contained in PMM and how they can help teachers develop the four competencies needed: personal, social, pedagogical, and professional.

II. METHOD

This research explained the valuable features of the Merdeka Mengajar Platform to develop teacher competence. The method used in this research is a literature study. Through this method, researchers collect library data, read, record, and process data to obtain information related to the topic to be discussed. The data sources of this research are obtained from the Merdeka Mengajar Platform and research articles in journals.

The analysis used in this research is content analysis. This content analysis consists of several stages. The analysis starts with data making, continues with abductively inferring contextual phenomena, and ends with narrating the answer to the research question [24].

III. RESULTS AND DISCUSSION

The research results for existing features in PMM show that all features have advantages and benefits. In addition to the platform that can be accessed anywhere and anytime, one of the benefits of using PMM that has been widely reported by several studies is the development of competencies owned by teachers [25–30]. Therefore, the subsequent discussion will discuss what features PMM has and its relation to developing the four teacher competencies.

When logged into the PMM platform, the interface can be seen in Figure 1 and Figure 2 below.



Figure 1. Initial Appearance Entering PMM

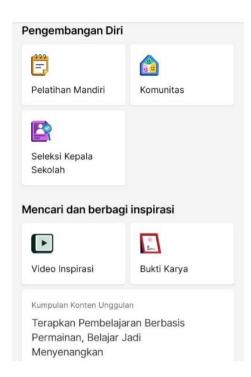


Figure 2. Initial Appearance Entering PMM

The homepage has several features that teachers can use to develop their competencies. The initial part of the homepage also contains an introduction to the curriculum currently being implemented in Indonesia, namely the Merdeka curriculum. Clicking on the Merdeka Curriculum Introduction (*Pengenalan Kurikulum Merdeka*) looks like in Figure 3 below.

Tentang Kurikulum Merdeka

Cari informasi Kurikulum Merdeka Q Garis Besar Kurikulum Merdeka Prinsip Dasar, Tujuan, Perbedaan dengan K13 Pembelajaran & Asesmen Dokumen Capaian Pembelajaran, Contoh ATP Projek Penguatan Profil Pelajar Pancasila Capaian, Dimensi & Panduan Projek Profil Kumpulan dokumen panduan pelaksanaan Kurikulum Merdeka Terbaru! Panduan kurikulum, Capaian pembelajaran, Elemen CP dan ATP.

Figure 3. Feature of Merdeka Curriculum Introduction

In this Introduction to the Merdeka Curriculum, an explanation is given of the outline of the Merdeka

curriculum, learning and assessment, and the project to strengthen the profile of Pancasila students. Each of these sections also contains more sub-sections that discuss in detail the elements of the Merdeka curriculum, such as the Merdeka Curriculum Outline, which discusses its fundamental principles, the purpose of the birth of this curriculum, and its differences from the previous curriculum. In addition, several questions about the Merdeka curriculum and their answers are commonly asked, as shown in Figure 4.

Ungkap Fakta Mengenai Implementasi Kurikulum Merdeka

Apa benar Kurikulum Merdeka itu bebas tanpa rambu-rambu yang jelas varahnya ke mana?

Dinas mewajibkan sekolah-sekolah untuk menjadi pilot program implementasi Kurikulum Merdeka?

Dalam Kurikulum Merdeka, ada pelatihan berjenjang seperti pada Kurikulum 2013?

Implementasi Kurikulum Merdeka berpengaruh pada TPG?

Apakah implementasi Kurikulum Merdeka hanya fokus untuk mendorong pembelajaran yang berorientasi pada pengembangan kemampuan TiK?

Figure 4. Questions Related to the Merdeka Curriculum in PMM

The Merdeka Curriculum Introduction feature can contribute to developing teachers' pedagogical competence, namely developing insights into the curriculum. The feature of explaining curriculum concepts in the Merdeka Curriculum Introduction also helps develop skills in learning design, learning implementation, and evaluating learning outcomes. All the elements mentioned are components of pedagogical competence [31–34]. A teacher cannot manage student learning well if the teacher himself does not understand or has a lack of understanding of the basics of education.

Next, we move on to Student Assessment (*Asesmen Murid*), the contents of which can be seen in Figure 5 below.



Figure 5. Student Assessment Feature Display

Figure 5 again shows that the platform contains assessments that teachers can use and provides materials and explanations related to the assessments themselves.

Furthermore, the central part of the assessment feature allows us to search for any assessments needed in the learning process (Figure 6). One example can be seen in Figure 7 by searching for the Minimum Competency Assessment (AKM).



Figure 6. Assessment Search on the Student Assessment Feature

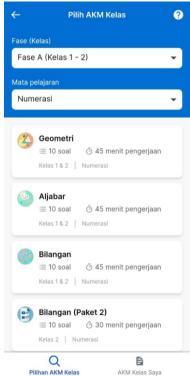


Figure 7. AKM Search on Student Assessment Feature

We can see in Figure 7 that we are given 10 sample questions for each level with the duration of work that has also been provided. We can also choose between Numeracy

and Literacy in the Subject (*Mata pelajaran*) menu. This Assessment feature, as in the previous feature, helps teachers develop their pedagogical competence because skills and knowledge regarding the evaluation of learning outcomes are part of the competence [31–34]. The contribution of PMM to the development of teachers' insights and abilities related to assessment was also stated by [35], who stated that PMM has a positive impact in assisting teachers in conducting assessments because of the various assessments that can be used as a reference.

This Student Assessment feature can also indirectly develop teachers' professional competence. The teacher learns about the problems (the assessment) and how they contain real-world applications of the concepts. Knowledge related to mastery of subject matter and its application in everyday life is part of professional competence [34, 36, 37].

The next feature is the Teaching Device Search (*Perangkat Ajar*). The display after we enter this feature can be seen in Figure 8 below.



Figure 8. Teaching Device Search Menu Display

In Figure 8, we can search for three types of teaching tools: modules and teaching materials, books, and project modules. We can also select the desired level and subject in this device search feature. There is a specific material search feature that can make it easier for us to find teaching tools that match what we want to find.

Teaching Tool Search can make it easier for teachers to design their lessons. Through other teachers' teaching tools, teachers can modify their learning designs according to the needs of their students. It is related to developing one component of pedagogical competence, namely learning design [31–34].

Searching for teaching tools can also indirectly develop teachers' professional competence. Through the content of the available teaching tools, teachers can learn the connection between the material to be taught and its application in daily life. Knowledge of applying a specific concept in real-life situations is one component of professional competence [34, 36, 37].

The next feature available in PMM is the search for Learning Outcomes (CP) and Flow of Learning Objectives (ATP) (Figure 9). This feature allows us to find the CP and ATP of the subjects we want to search. We can choose the level of education and the subject we want to find, the CP and ATP. This feature also explains the CP and ATP itself.



Figure 9. CP and ATP Search Menu Display

The explanation of CP and ATP in the CP and ATP Search feature also teaches teachers to formulate CP and ATP based on the characteristics and needs of students and schools. Therefore, this feature can indirectly contribute to teachers' understanding of student characteristics and needs. Understanding the characteristics and needs of students themselves is part of pedagogical competence [31–34].

The next feature is Independent Training (*Pelatihan Mandiri*). This feature provides independent training that teachers need to develop their four competencies. The display of this feature can be seen in Figure 10, Figure 11, and Figure 12 below.

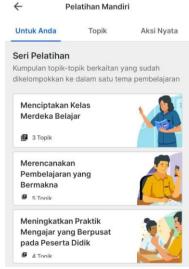


Figure 10. Self-Training Menu Display

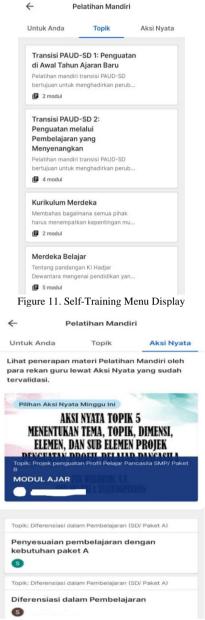


Figure 12. Self-Training Menu Display

Figure 10 shows some self-training recommendations that we can follow, and each training recommendation has several topics in it. Figure 11 shows the training topics that we can follow. These topics even include training that is specific to certain education levels. Finally, Figure 12 shows the Real Action section of the self-training feature. These Real Actions are the implementation of what teachers have learned. This part of the self-training is one of the advantages of PMM because PMM helps teachers develop their competence by providing training containing theories and requiring them to take actual actions or implement what they have learned at PMM.

This self-training is one of the main advantages of PMM. This feature can develop all the competencies needed by teachers. Regarding the development of personality competence, one of the teachers' reflections (in the Real

Action section) suggested that the Real Action made him more open, accepting differences and wanting to continue to develop. Teachers develop this competence through concrete actions such as collaborating with peers, organizing workshops, formulating classroom rules, etc. This openness in thinking and acting is a characteristic of teachers who display personality competence [38, 39]. Second, related to the development of social competence, this can also be seen from the Real Actions that teachers also carry out, especially in the socialization or workshops they organize. Through the socialization or workshops they organize, teachers learn to develop their social competence, namely the ability to interact politely and effectively, both orally and in writing, with various elements inside and outside the school environment. This ability is part of teachers' competence [34, 40, 41]. Finally, independent training and available concrete actions also improve teachers' pedagogical and professional competencies. Through the self-training and concrete actions available in PMM, teachers learn how to implement and manage student learning and deliver materials that are appropriate to the context of students' daily lives.

The next feature is the community (*Komunitas*) feature (Figure 13). In this feature, teachers can search for communities as a place to share and learn. Teachers can search for communities at the district, city, or even provincial levels. Teachers can also join webinars organized by particular communities. In fact, in the resource section, the community can invite specific presenters according to the subject to be able to provide material to teachers in their schools.

In the Resource Persons section, we can see various trusted and capable resource persons. We can see the actual actions that these sources have taken. The actions (or teachers' work) can be used as a reference for teachers to develop competence or as an idea in designing learning.

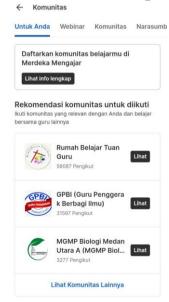


Figure 13. Community Menu View

The next feature of PMM is principal selection. This feature is one of the latest features in PMM. This feature explains the technical instructions, requirements, and selection stages to become a school principal. The display of this feature can be seen in Figure 14 below.

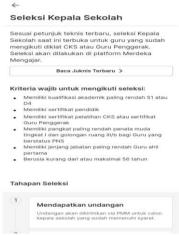


Figure 14. Principal Selection Menu Display

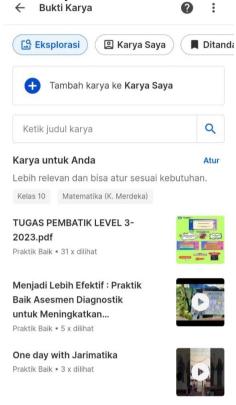
The next feature is the inspiration video (*Video Inspirasi*). This feature contains several videos teachers can use as classroom references. The inspiration video menu contains various videos containing practice ideas such as learning practices, assessments, and reflections (Figure 15). Within the practice ideas, there are also several videos.

Video-video dalam fitur Video Inspirasi dapat membantu para guru mengembangkan kompetensi pedagogis mereka. Hal ini dikarenakan video-video tersebut memuat Kumpulan-kumpulan ide praktik pembelajaran yang juga dilengkapi dengan ide praktik asesmen, dan bahkan ide praktik refleksi. Hal ini tentu saja menjadi bagian dari pengembangan kompetensi pedagogis yang meliputi pelaksanaan dan pengelolaan pembelajaran siswa [31–34], termasuk refleksi untuk meningkatkan kualitas pembelajaran [42].



Figure 15. Inspiration Video Menu Display

The next feature available by PMM is proof of work. In this feature, we can see the works uploaded by the teachers. We can search for the proof of work we want by entering keywords in the search field. As in the actual action feature, we can use this evidence of work as a basis or idea to design and adjust learning that suits the needs of students. This idea can be adapted or adopted according to the needs of the teachers. This aspect of learning design is undoubtedly related to the development of pedagogical competence that teachers should carry out.



Tampilkan semua ➤
Figure 16. Proof of Work Menu Display

IV. CONCLUSION AND SUGGESTION

The government launched the Merdeka Mengajar Platform (PMM) to help teachers develop competence. This platform allows teachers to carry out self-development anywhere and anytime. The features owned by PMM can help develop the four competencies teachers have. Personal competence and social competence can be developed in the Community Features and Real Action in Self-Training. Pedagogical competence can be developed through the curriculum introduction feature, student assessment, teaching tools, self-training, inspirational videos, and proof of work. Finally, professional competence can be developed through student assessment, teaching tools, and self-training features.

Because of the many benefits that can be obtained through this PMM, researchers suggest opening access to this PMM to fresh graduates majoring in Education or students majoring in Education so that they can get an initial overview of the curriculum being implemented and begin to develop all the competencies needed by teachers. This access can be accompanied by cooperation between the government, schools, universities, and related Education offices.

ACKNOWLEDGEMENT

We want to thank the Directorate General of Higher Education, Research and Technology of the Ministry of Education, Culture, Research and Technology of Indonesia for their assistance so that the authors could carry out this research smoothly.

REFERENCES

- [1] O. Mamoh and H. Bete, "PENGEMBANGAN DIRI GURU-GURU MATEMATIKA SE-KABUPATEN TTU MELALUI KEGIATAN BIMTEK PENULISAN PROPOSAL DAN ARTIKEL ILMIAH," *Bakti Cendana*, vol. 2, no. 2, pp. 49–57, Oct. 2019, doi: 10.32938/bc.2.2.2019.49-57.
- [2] M. El-ahwal, "Effect of Micro-Teaching Method Supported by E-Learning Platforms in Enriching Preservice Mathematics Teachers' Teaching Practice s and Improve Self-efficacy," *International Journal of Instructional Technology and Educational Studies*, vol. 1, no. 3, pp. 28–41, Aug. 2020, doi: 10.21608/ihites.2020.43173.1036.
- [3] R. Fadhliyah, S. Mirizon, and I. Petrus, "Professional Development of English Teachers at a State Islamic Senior High School in Palembang," *IJEFL*, vol. 5, no. 2, p. 471, Nov. 2020, doi: 10.21462/ijefl.v5i2.282.
- [4] D. P. Fatmawati and W. W. I. Utama, "Implementasi Pengembangan Keprofesian Berkelanjutan dalam Intervensi PDBK di TK Pertiwi Puro Pakualaman (Pengembangan Diri)," *IJEC*, vol. 5, no. 1, pp. 62–68, Jan. 2023, doi: 10.35473/ijec.v5i1.2134.
- [5] J. König *et al.*, "The links between pedagogical competence, instructional quality, and mathematics achievement in the lower secondary classroom," *Educ Stud Math*, vol. 107, no. 1, pp. 189–212, May 2021, doi: 10.1007/s10649-020-10021-0.
- [6] N. Nelly, R. Situmorang, and T. Iriani, "Pengembangan Media Berbasis Web pada Program E-Mentoring Kompetensi Pedagogik Guru," *basicedu*, vol. 6, no. 6, pp. 10152–10163, Dec. 2022, doi: 10.31004/basicedu.v6i6.3996.
- [7] E. Suryawati, Z. Harfal, and S. Syafrinal, "Improving MGMP teachers' self-efficacy through technical guidance in learning from home program," *jcse*, vol. 2, no. 2, pp. 61–68, Aug. 2021, doi: 10.22219/jcse.v2i2.16506.
- [8] N. Sheveleva, D. Mahotin, S. Lesin, and O. Curteva, "Preparing teachers for the use of digital technologies in educational activities," SHS Web Conf., vol. 98, p. 05016, 2021, doi: 10.1051/shsconf/20219805016.
- [9] S. J. Daniel, "Education and the COVID-19 pandemic," *Prospects*, vol. 49, no. 1–2, pp. 91–96, Oct. 2020, doi: 10.1007/s11125-020-09464-3.

- [10] F. Z. Ikram and R. Rosidah, "Kombinasi WhatsApp dan Google Classroom dalam Pembelajaran Matematika Mata Kuliah Aljabar Elementer," *IMED*, vol. 7, no. 1, pp. 60–70, 2023.
- [11] A. T. Utami, I. R. W. Atmojo, and D. Y. Saputri, "Analisis dampak pembelajaran dalam jaringan (daring) pada kompetensi pedagogik dan profesional guru sekolah dasar," *Jurnal Pendidikan Ilmiah*, vol. 7, no. 1, pp. 13–18, 2021.
- [12] K. F. Hollebrands and H. S. Lee, "Effective design of massive open online courses for mathematics teachers to support their professional learning," *ZDM Mathematics Education*, vol. 52, no. 5, pp. 859–875, Oct. 2020, doi: 10.1007/s11858-020-01142-0.
- [13] S. Safruddin, S. Suaedi, and M. Ilyas, "Pengaruh Sikap Professional dan Persepsi Guru Tentang Kegiatan Pengembangan Diri Terhadap Kinerja Guru Matematika SMA," *Proximal: Jurnal Penelitian Matematika dan Pendidikan Matematika*, vol. 3, no. 1, pp. 37–46, 2020.
- [14] F. N. Ambarwati, "Meningkatkan Pengembangan Diri Guru Pendidikan Agama Islam (PAI) Sebagai Implementasi Teori Dinamis-Progresif di Sekolah Dasar," *Edudeena: Journal of Islamic Religious Education*, vol. 3, no. 2, pp. 91–99, 2019.
- [15] A. Jawahir and I. Yusuf, "Guru Belajar dan Berbagi Platform and Users' Responses in The Context of Teacher Professional Development," in *SCIENTIA:* Social Sciences & Humanities, in 2, vol. 1. Cirebon: Institut Agama Islam Bunga Bangsa Cirebon, 2021, pp. 423–431.
- [16] A. I. Kartomo and S. Slameto, "EVALUASI KINERJA GURU BERSERTIFIKASI," *JK*, vol. 3, no. 2, p. 219, Dec. 2016, doi: 10.24246/j.jk.2016.v3.i2.p219-229.
- [17] T. Nuryanti, G. Abdullah, and N. A. N. Murniati, "Pengaruh Pengembangan Diri Terhadap Kualitas Mengajar Guru Pendidikan Anak Usia Dini," *J. Prakarsa Paedagogia*, vol. 5, no. 1, pp. 12–21, Aug. 2022, doi: 10.24176/jpp.v5i1.7984.
- [18] A. Andriani, A. N. Hidayati, F. Abdullah, D. Rosmala, and Y. Supriyono, "Menulis sebagai Refleksi Pengembangan Diri dan Profesionalisme Guru," *E-Dimas*, vol. 13, no. 4, pp. 692–698, Dec. 2022, doi: 10.26877/e-dimas.v13i4.11961.
- [19] K. P. Lestari, H. Hendarman, and R. Hidayat, "PENINGKATAN PRODUKTIVITAS KERJA GURU MELALUI PENGEMBANGAN EFIKASI DIRI DAN KEPEMIMPINAN VISIONER," *J MANAJ PEND*, vol. 10, no. 1, pp. 037–042, Jan. 2022, doi: 10.33751/jmp.v10i1.5063.
- [20] M. Lei and J. Medwell, "Impact of the COVID-19 pandemic on student teachers: how the shift to online collaborative learning affects student teachers' learning and future teaching in a Chinese context," *Asia Pacific Educ. Rev.*, vol. 22, no. 2, pp. 169–179, Jun. 2021, doi: 10.1007/s12564-021-09686-w.

- [21] B. Pepin, B. Xu, L. Trouche, and C. Wang, "Developing a deeper understanding of mathematics teaching expertise: an examination of three Chinese mathematics teachers' resource systems as windows into their work and expertise," *Educ Stud Math*, vol. 94, no. 3, pp. 257–274, Mar. 2017, doi: 10.1007/s10649-016-9727-2.
- [22] D. Setyawan and S. Syamsuryawati, "Analisis Penggunaan Aplikasi Merdeka Mengajar Terhadap Pemahaman Guru Terkait Implementasi Kurikulum Merdeka," *Prima Magistra: Jurnal Ilmiah Kependidikan*, vol. 4, no. 3, pp. 428–436, 2023.
- [23] E. A. Ni Putu, I. Bagus Putu Arnyana, I. Nyoman Dantes, and I. P. Hendra Wirawan, "'SANTI SARMA' IMPLEMENTASI KEBIJAKAN PENGGUNAAN PLATFORM MERDEKA MENGAJAR MENUJU GURU PRODUKTIF DAN INOVATIF," *JP*, vol. 8, no. 1, pp. 196–209, May 2023, doi: 10.23969/jp.v8i1.7569.
- [24] K. Krippendorff, Content analysis: an introduction to its methodology, 2nd ed. Thousand Oaks, Calif: Sage, 2004.
- [25] D. Aulia, I. Murni, and D. Desyandri, "Peningkatan Kompetensi Guru Sekolah Dasar melalui Platform Merdeka Mengajar (PMM)," *JIPP*, vol. 8, no. 1b, pp. 800–807, Apr. 2023, doi: 10.29303/jipp.v8i1b.1310.
- [26] D. Defa, I. W. Lasmawan, and I. W. Suastra, "Analisis Pemanfaatan Platform Merdeka Belajar (PMM) oleh Guru Penggerak di Kecamatan Rantau Selatan Kabupaten Labuhanbatu dalam Implementasi Kurikulum Merdeka," *Pendas: Jurnal Ilmiah Pendidikan Dasar*, vol. 8, no. 1, pp. 5776–5787, 2023.
- [27] D. Marisana, S. Iskandar, and D. T. Kurniawan, "Penggunaan Platform Merdeka Mengajar untuk Meningkatkan Kompetensi Guru di Sekolah Dasar," *basicedu*, vol. 7, no. 1, pp. 139–150, Jan. 2023, doi: 10.31004/basicedu.v7i1.4363.
- [28] M. Ramdani, S. Y. Yuliyanti, I. T. Rahmatulloh, and S. Suratman, "Penggunaan Platform Merdeka Mengajar (PMM) pada Guru Sekolah Dasar," *J. Instr. Dev. Res.*, vol. 2, no. 6, pp. 248–254, Dec. 2022, doi: 10.53621/jider.v2i6.201.
- [29] R. Suryadi and D. Hidayati, "Utilizing Merdeka Mengajar Platform at SMP Muhammadiyah Bandung," *intiqad.j.agama.dan.pendidik.n.a.*, vol. 15, no. 1, pp. 167–176, Jun. 2023, doi: 10.30596/14918.
- [30] N. I. Budiarti, "MERDEKA MENGAJAR PLATFORM AS A SUPPORT FOR THE QUALITY OF MATHEMATICS LEARNING IN EAST JAVA," *MP*, vol. 10, no. 1, pp. 13–25, 2022.
- [31] A. Dego, Y. D. A. Santie, S. Deehop, and F. Kerebungu, "Analisis Kompetensi Pedagogik Guru IPS di SMP Negeri 1 Kabupaten Pulau Morotai," *soc*, vol. 6, no. 2, p. 81, Dec. 2019, doi: 10.24036/scs.v6i2.151.
- [32] V. Nainggolan, M. H. Situmorang, K. Anggreni, D. A. Supiani, and H. S. Sitompul, "Menganalisis Kompetensi Pedagogik Guru dalam Pembelajaran

- Matematika di SD IT Cendekia Pematangsiantar," *Edu Cendikia*, vol. 3, no. 02, pp. 268–275, Aug. 2023, doi: 10.47709/educendikia.v3i02.2539.
- [33] N. N. Perni, "KOMPETENSI PEDAGOGIK SEBAGAI INDIKATOR GURU PROFESIONAL," *AW*, vol. 4, no. 2, p. 175, Oct. 2019, doi: 10.25078/aw.v4i2.1122.
- [34] M. J. E. Sulaki, A. Hamdani, and R. A. M. Noor, "PENGARUH PERSEPSI PESERTA DIDIK TENTANG KOMPETENSI KEPRIBADIAN GURU TERHADAP MOTIVASI BELAJAR SISWA SMK," *JMEE*, vol. 5, no. 2, p. 212, Jan. 2019, doi: 10.17509/jmee.v5i2.15190.
- [35] F. Aritonang, I. S. A. Al Aziz, and S. Suwandi, "Utilization of Assessment Features in Platform Merdeka Mengajar (PMM) in the Assessment of Indonesian Language Learning," *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, vol. 8, no. 2, pp. 134–141, 2023.
- [36] M. S. Prastania and H. Sanoto, "Korelasi antara Supervisi Akademik dengan Kompetensi Profesional Guru di Sekolah Dasar," *basicedu*, vol. 5, no. 2, pp. 861–868, Mar. 2021, doi: 10.31004/basicedu.v5i2.834.
- [37] S. Rahayu, S. Sutrio, H. Hikmawati, and N. N. S. P. Verawati, "PELATIHAN LESSON STUDY BAGI GURU-GURU SMA MUHAMMADIYAH MATARAM UNTUK MENINGKATKAN PROFESIONALISME GURU," *JPPM*, vol. 1, no. 2, Nov. 2018, doi: 10.29303/jppm.v1i2.894.
- [38] S. Rahmatunisa, M. Fahri, and M. K. Nawawi, "Analisis kompetensi kepribadian dan sosial guru pada pembelajaran IPS kelas vi MI Mathlaul Anwar Cibitung Tengah Tenjolaya Kabupaten Bogor," *Jurnal Pendidikan Tambusai*, vol. 6, no. 2, pp. 15788–15793, 2022.
- [39] N. M. Sari and P. Yulia, "Kompetensi Kepribadian Guru Matematika di Madrasah Tsanawiyah," *Plusminus*, vol. 3, no. 1, Jan. 2023, doi: 10.31980/plusminus.v3i1.2463.
- [40] H. Hana, A. M. Gayatri, and H. Robbani, "Pengaruh Kompetensi Sosial Guru Terhadap Motivasi Belajar Siswa Kelas XI Jurusan Administrasi Perkantoran Pada Mata Pelajaran Ekonomi Bisnis di SMK Al Wahyu Jakarta Timur," *Intelek*, vol. 2, no. 2, pp. 168–175, Sep. 2021, doi: 10.37010/int.v2i2.388.
- [41] R. Sagita, N. Ikhwan, R. L. Rahma, and L. Hakim, "KOMPETENSI SOSIAL GURU IPA DI MADRASAH IBTIDAIYAH SWASTA ANNUR ISLAMIC FULLDAY SCHOOL TAHUN AJARAN 2020-2021," *AoEJ*, vol. 13, no. 1, pp. 153–163, Jan. 2022, doi: 10.47200/aoej.v13i1.990.
- [42] N. Balulu, M. Masrifah, and L. Eki, "ANALISIS KOMPETENSI PEDAGOGIK GURU IPA SMP KOTA TERNATE DALAM PEMBELAJARAN LITERASI SAINS," *JLu*, vol. 2, no. 2, p. 24, Aug. 2021, doi: 10.31851/luminous.v2i2.6279.