

**MERDEKA MENGAJAR PLATFORM:
CULTIVATING NOVICE TEACHERS' CORE COMPETENCE IN
INDUCTION PROGRAM**

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Abstract: This study aims to explore the adoption of mobile technology named Merdeka Mengajar Platform to enhance the pedagogical content knowledge of novice teachers during their induction program. Additionally, it investigates the benefits experienced by novice teachers when using a mobile technology application designed to understand and implement the Kurikulum Merdeka. A mixed-methods approach was employed to collect data. Sixty novice teachers from 16 senior high schools in West Bandung Regency participated by completing a questionnaire, and eight teachers were interviewed to provide additional insights. The findings reveal that using mobile phones to access the Merdeka Mengajar Platform offers several advantages: 1) it allows novice teachers to acquire fundamental pedagogical knowledge at their own pace, 2) it improves their teaching practices by facilitating the implementation of the Kurikulum Merdeka in their classrooms, 3) it enables them to share their practical experiences on the Merdeka Mengajar Platform, 4) it satisfies teachers by enhancing their core competence during the induction program, and 5) it serves as an additional source of guidance alongside their mentors. In conclusion, novice teachers enrolled in induction programs benefit significantly from the Merdeka Mengajar Platform, which provides them with on-demand accessibility via their mobile devices, irrespective of time and location.

Keywords: Merdeka Mengajar Platform; Induction Program; Core Competence; Novice Teacher

Accepted: September 24, 2023 Approved: November 5, 2023 Published: March 19, 2024



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INTRODUCTION

Mastery of competence for teachers is crucial. Competence is defined as a set of abilities to integrate and apply knowledge, skills, and psychosocial factors that are contextually appropriate (such as beliefs, attitudes, values, and motivation) to consistently perform successfully within a specified domain (Vitello et al., 2021). Specifically, the mastery of competence for teachers becomes highly critical because competent teachers mean that they have the ability to use their knowledge and skills in the field of teaching to provide meaningful learning experiences for their students.

There are several competencies that teachers are required to master, referred to as core competencies. The first is professional competence, which is considered essential for all teachers, involving the ability to provide quality teaching services (Kunter et al., 2013). The second competency is known as pedagogical content knowledge, which involves

knowledge and skills related to teaching in accordance with the subject matter being taught (Tejedor et al., 2019); Driel & Berry, 2010). The third competency pertains to the mastery and use of technology in teaching (Güneş et al., 2010). The fourth competency is social competence.

Teachers who possess competence in teaching-related competencies are referred to as competent teachers. Competent teachers are one of the key determinants of student learning success (Sachs, 2007). Competent teachers exhibit specific characteristics that distinguish them from other educators. According to Zhu et al., (2013), competent teachers are those who have mastery over four core teacher competencies. These four core competencies include learning competency, educational competency, social competency, and technological competency. By mastering these four core competencies, teachers become individuals capable of providing effective instruction and fostering innovation (Simonović, 2021).

Considering the paramount importance of mastering core competencies for teachers, educators are encouraged to "continuously enhance their competence" (Postholm, 2012). There are various approaches that can be employed to become a competent teacher. Educators can engage in self-directed learning, participate in learning communities, or attend training sessions. Proficiency in core competencies is critical for all teachers, including novice teachers. Novice teachers are educators who have limited or less than three years of teaching experience (Caspersen & Raaen, 2014). Novice teachers are not exempt from the same teaching proficiency requirements. They must teach professionally and demonstrate mastery of the four core teacher competencies.

In contrast to the requirement of all teachers, particularly novice teachers, to master core competencies, the reality observed in schools with novice teachers reveals a contrary condition. Bubb (2017) reported that during the first three years of teaching, novice teachers experience shock, high levels of anxiety, and an overwhelming teaching demand, which leads them to struggle to continue teaching (Kim & Roth, 2011). In other words, novice teachers have not yet mastered the core competencies. During their initial three years of teaching, they engage in an induction program. The induction program involves mentoring activities provided by experienced educators to novice teachers to enhance their teaching abilities (Densinon et al., 2002). With the presence of the induction program, novice teachers are busy adjusting, familiarizing themselves with their roles as educators, and striving to master the teaching materials. Novice teachers feel overwhelmed by their new teaching responsibilities due to the sense of mentor surveillance (Phan & Pham, 2022). Furthermore, they perceive that improving their teaching skills under the mentor's guidance is insufficient and lacks flexibility (Aktaş, 2018).

Various analyses of teacher competence improvement, particularly for novice teachers, have been conducted in several countries. In the United States, Career and Technical Education (CTE) is recognized as an induction program for novice teachers, which extends over a period of 5-6 years (Densinon et al., 2002; Brindley & Parker, 2010). Another study, conducted in the United Kingdom, focuses on enhancing the quality of induction programs (Gilles et al., 2004). In Singapore, an induction program utilizing mentoring techniques has been employed (Chong & Tan, 2006). Research on enhancing

the competence of novice teachers has also been carried out in Indonesia (Niron et al., 2019). However, research on improving the competence of novice teachers, both domestically and internationally, has primarily concentrated on institutionally managed programs. In these programs, novice teachers follow a schedule determined by the school or a specific timeframe under the mentor's guidance.

Based on the explanation above, research on enhancing the core competence of novice teachers through the adjustment of scheduling, training material choices, and flexible learning pace tailored to the preferences of novice teachers has not been conducted. Research on the flexibility of improving core competences for novice teachers is essential due to the low competence levels of teachers in effective lesson planning, delivering lesson, and assessment, which directly impacts students' learning outcomes. Furthermore, novice teachers' voluntary mastery of core competences can serve as a foundation for future research in developing effective induction programs. The findings of this research can also be utilized by schools or organizations responsible for enhancing novice teachers' competence concerning the choice of learning media and channels. Therefore, the aim of this study is to explore and analyze how the teaching competence of novice teachers can be assessed using a government-provided learning application, namely the Merdeka Mengajar Platform (PMM).

METHOD

This research, combining both quantitative and qualitative methods, involved 60 novice high school teachers aged between 23 and 27, currently in their second and third years of induction programs, from West Bandung Regency, West Java. The nature and composition of the samples are presented in Table 1 below. Respondent selection was based on voluntary methods and shared characteristics, specifically novice teachers with belajar.id accounts who utilize Android devices to access the Merdeka Mengajar Platform.

Data were obtained through a Google Form questionnaire, analyzed using proportions based on responses categorized as 'yes' or 'no'. For interpretation purposes, a higher proportion indicates a greater consensus among respondents in agreement with the provided statements. Additionally, data were collected through interviews. Eight novice teachers were willing to participate in the interviews. The interviews were recorded, transcribed, and then grouped into categories for analysis.

Table 1 Composition and background variables of sample teachers

Charateristics/Categories	%
Gender	
Male	8.33
Female	91.6
Years of Induction Program	
1 year	0
2 years	66.67
3 years	33.33

Teaching subject	
English	23.33
Mathematics	18.33
Geography	15.00
Indonesian Language	10.00
Physics	6.67
Other	26.67

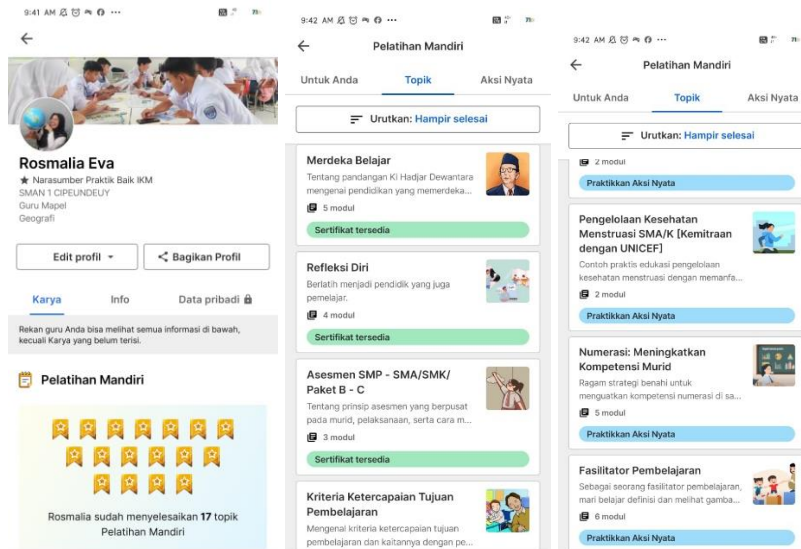
RESULT AND DISCUSSION

3.1 Results

3.1.1 Merdeka Mengajar Platform Application

Figure 1 below displays screenshots of the Merdeka Mengajar Platform (PMM) application, specifically captures 1, 2, and 3. This application is utilized by novice teachers who possess belajar.id accounts. Belajar.id accounts are provided by the Ministry of Education, Culture, Research, and Technology as a Single Sign-On for teachers to access PMM, SIM PKB (teacher career accounts), Google for Education services, and Canva for Education.

PMM, developed by the Ministry of Education, Culture, Research, and Technology, employs the Merdeka Belajar mobile application version 1.43.0. The application is accessible through Android and web platforms. It comprises modules, exercises, real-life actions, and evidence of work that can be accessed anytime and anywhere, allowing for flexible learning at the teacher's own pace.



Screenshot 1

Screenshot 2

Screenshot 3

3.1.2 Proportions of Novice Teachers' Evaluation of PMM

The evaluation of PMM's utility for novice teachers is examined based on predetermined elements. Table 2 below presents the proportions of novice teachers' assessments

regarding strategies for competence improvement, preferences for supporting tools to enhance competence, the mentor's role in enhancing competence, and the benefits of PMM for knowledge acquisition and curriculum implementation.

Table 2. Proportions of Novice Teachers' Evaluation of PMM

No	Statement	Percentage (%)	
		<i>f</i>	
		Yes	No
1.	I like to enhance my teaching abilities independently.	90% (54)	(10%) (6)
2.	I do not require continuous mentor guidance to master teaching skills.	25 (28)	75 (32)
3.	I can utilize my spare time outside teaching hours for self-development.	92 (55)	8 (5)
4.	I own a belajar.id account.	100 (60)	0 (0)
5.	The Merdeka Mengajar Platform (PMM) helps me gain a better understanding of teaching.	97 (58)	3 (2)
6.	In PMM, I can study according to my available time.	100 (60)	0 (0)
7.	I do not need mentor assistance to create Real Actions (Aksi Nyata) in PMM.	73 (44)	27 (16)
8.	PMM aids me in mastering the Merdeka Curriculum more easily.	80 (48)	20 (12)
9.	PMM helps me understand the preparation of teaching modules.	100 (60)	0 (0)
10.	I conduct teaching in accordance with the lesson plans created in PMM.	96 (58)	3 (2)
11.	Modules and Real Actions in PMM aid me in reflective teaching.	100 (60)	0 (0)

Table 2 above displays the proportions of "Yes" and "No" responses for each statement describing novice teachers' perceptions of PMM usage in enhancing core competence. The proportions for each statement fall within the range of 0.7333 to 1.0, indicating that the higher the mean value, the more respondents agree with the statement.

3.1.3 The results of interview

There are five main themes that can be identified based on the interview results. These five aspects are presented in Figure 1 below.

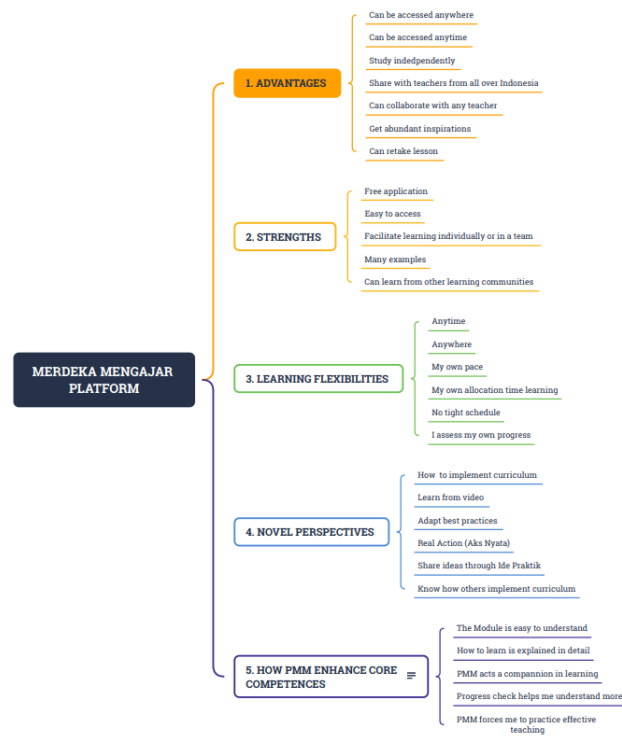


Figure 1. Theme of PMM

3.2 Discussion

3.2.1 Aplikasi PMM memfasilitasi Guru Pemula untuk menguasai core competence

Referring to Screenshots 1, 2, and 3, novice teachers have their own profiles on PMM. The profile section displays personal data along with the achievements or competencies that novice teachers have acquired. Yellow badges indicate that novice teachers have completed self-paced training. The presence of badges helps teachers measure their own learning progress. Badges are earned when teachers pass tests and have their uploaded work curated. This aligns with the perspective (Jin et al., 2015) that teachers who undergo training and receive passing scores or notifications are motivated to continue learning to master the content knowledge (CK) and pedagogical content knowledge (PCK) they are currently pursuing.

PMM provides self-paced training in the form of modules, helps teachers learn anytime, anywhere, at their own pace, and according to their individual abilities. According to Sachs, (2007), teachers who learn from their own learning help improve their teaching competence. Effective techniques used are retooling, remodeling, and revitalizing. Within PMM, novice teachers can renew their knowledge and skills, review examples created by other teachers, and continuously enhance their competencies.

Referring to Table 2, Numbers 5, 8, and 9, novice teachers affirmed that PMM aids in mastering teaching, curriculum, and the preparation of learning plans using Android-based applications or technology. In summary, learning with technology simplifies

teachers' improvement in mastering pedagogical knowledge, as emphasized (Fairman, 2004).

3.2.2 Flexible Enhancement of Core Competence

The interview results indicate that all teachers (n=8) indicated that the PMM mobile technology application facilitates the mastery of both the theory and practice of teaching. Referring to Table 2, number 1, novice teachers learn about teaching independently outside of teaching hours (number 3). PMM enables novice teachers to learn anytime and anywhere, in line with the interview findings (see Figure 1, subsection 1 Advantages). Flexibility in learning and easy access to the materials studied is a unique feature of technology use (Thompson & Mishra, 2007).

The flexibility in improving competence is also acknowledged by novice teachers based on the interview findings. Referring to Figure 1, subsection 3, novice teachers mentioned six advantages of using PMM, including time adjustment suitability, learning speed, and self-assessment of teaching success. Novice teachers require a non-stressful learning environment, unlike when learning alongside a mentor. With PMM, rigid and strict learning schedules are no longer present. A significant point to note is the ability to adjust the learning pace, which is not encountered in induction programs conducted with mentors, and novice teachers do not need to make social adjustments to mentors (Phan & Pham, 2022).

3.2.3 Improving Pedagogical Competence

The use of PMM opens up opportunities for novice teachers to enhance their teaching skills. The first supporting aspect that makes this possible is autonomy. In PMM, novice teachers learn independently, which means they become autonomous learners. Through PMM, novice teachers express that they discover new things and gain new perspectives on teaching. Firstly, this is related to the implementation of the curriculum. In PMM, novice teachers work on modules that help them understand the paradigm of the Merdeka Curriculum, followed by completing a post-test and concluding with lesson planning.

Secondly, novice teachers gain insights from example videos provided on PMM. These videos guide novice teachers in adapting, imitating, or modifying teaching strategies according to their assigned classes.

Thirdly, novice teachers are required to practice teaching according to the PMM's guidelines. When conducting teaching practice or "Aksi Nyata," novice teachers document their teaching activities. This documentation is uploaded to PMM and curated. If it passes curation, the teacher receives a certificate as recognition that their teaching practice complies with the standards.

Finally, novice teachers understand the technical implementation of the curriculum. PMM encourages teachers to transform teaching theory into actual practice. For novice teachers, mastering teaching practice is a necessity, even though they theoretically received it during their university studies.

3.2.4 Act as the supplementary program

The ongoing induction program for novice teachers becomes comprehensive with the

addition of PMM. The structured self-training provided on PMM is designed to assist teachers in mastering teaching concepts, the Merdeka Curriculum paradigm, and curriculum implementation.

Based on interviews, it was found that the information obtained from PMM is more up-to-date and comprehensive compared to what is received from mentors. The use of modules equipped with assessments and guidance on effective learning methods on PMM serves as a valuable resource for novice teachers. Limitations in terms of examples and inspiration that may not be available through mentoring can be accessed on PMM. Novice teachers can explore hundreds of Practical Ideas, Artifacts, and Best Practices, which serve as teaching inspirations that they can emulate.

In contrast to the induction program activities conducted during teaching hours, PMM can be utilized outside of teaching hours. Novice teachers extend their learning duration beyond working hours. The aspects that they may not have encountered during mentoring sessions can be independently explored on PMM, and novice teachers can choose the content that best suits their needs.

3.2.5 Act as a e-mentor

PMM is perceived as a platform that acts as an e-mentor, as stated by novice teachers who consider PMM to be a study companion that is readily available and does not require payment, offering them the opportunity to seek guidance on various matters.

PMM provides learning materials that guide novice teachers in mastering specific skills. The nature of PMM, which supports novice teachers in gaining knowledge beforehand, aligns with the approach employed by mentors in the induction program. Mentors provide foundational knowledge, followed by instructing novice teachers to implement this knowledge when planning, executing, and evaluating their teaching. PMM essentially replicates the stages of the induction program conducted by mentors, and novice teachers view PMM as a friendly mentor.

For instance, PMM sends notifications via WhatsApp to remind novice teachers to complete assignments. These notifications through WhatsApp and email create the impression that novice teachers have a mentor who cares about their progress. PMM is not merely a machine but an entity that provides personalized attention.

CONCLUSION

To sum up, this research contributes to the theoretical construction of the utilization of PMM for novice teachers in enhancing core competence during the induction program. The study demonstrates that using PMM in the form of modules, coupled with practice exercises, comprehension of the modules culminating in lesson planning or practical implementation, assists novice teachers in improving their understanding of teaching, teaching implementation, and the ability to conduct effective teaching reflection. The mastery of content knowledge and technological pedagogical and content knowledge (TPACK), which are critical determinants of student learning success, can be attained by harnessing the potential of PMM. Novice teachers can flexibly learn about teaching in terms of timing, learning pace, and comprehension abilities when utilizing the PMM.

PMM, acting as a study companion or mentor beyond the scope of the induction program, serves as an application that complements the gaps experienced during schooling. Furthermore, this research reinforces the notion that PMM, as an application, offers flexibility and substantial benefits for novice teachers, thus recommending its use by this group. However, while the utilization of PMM yields significant outcomes in core competence acquisition, there are limitations in this study. One such limitation is that the research only involves novice teachers aged between 23-27. Core competence acquisition through PMM may differ for novice teachers who are older than those purposively sampled in this study. Consequently, future research may investigate the effectiveness of PMM utilization for novice teachers over the age of 27 to discern the potential impact of age on its efficacy.

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