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Analyzing the Readiness of Javanese Language Teachers Toward the Implementation of Mobile Learning in Gresik Regency

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Abstrak

Penelitian ini menganalisis kesiapan guru Bahasa Jawa di Kabupaten Gresik dalam mengadopsi mobile learning dengan mengintegrasikan kerangka Technology Acceptance Model (TAM) dan Mobile Learning Readiness (MLR) sebagai pendekatan konseptual multidimensional. Studi ini memberikan kontribusi teoritis dan praktis dengan memperkuat literatur tentang kesiapan guru untuk pembelajaran mobile dalam pendidikan bahasa Jawa dan menawarkan bukti empiris untuk mendukung program literasi digital yang tepat sasaran dan pembelajaran berbasis mobile yang inovatif untuk meningkatkan kualitas pengajaran dan melestarikan budaya lokal. Studi ini menggunakan desain kuantitatif eksploratif dengan melibatkan 26 guru SMP melalui instrumen terstandar yang mengukur Perceived Ease of Use (PEOU), Perceived Usefulness (PU), serta dimensi kesiapan teknologis, pedagogis, dan psikologis. Analisis data dilakukan menggunakan statistik deskriptif dan analisis pola kecenderungan. Temuan menunjukkan adanya asimetri antara persepsi kemudahan penggunaan dan persepsi kebermanfaatan pedagogis, yang dipengaruhi secara signifikan oleh faktor usia dan pengalaman mengajar. Studi ini memperluas bukti empiris pada konteks pendidikan bahasa daerah serta mengusulkan kerangka intervensi berbasis data untuk penguatan kapasitas guru dalam integrasi teknologi pembelajaran.

Kata Kunci: *Pembelajaran Mobile; Bahasa Jawa; Kesiapan Guru.*

Abstract

This study analyzes the readiness of Javanese language teachers in Gresik Regency to adopt mobile learning by integrating the Technology Acceptance Model (TAM) and the Mobile Learning Readiness (MLR) framework as a multidimensional conceptual approach. This study provides theoretical and practical contributions by strengthening the literature on teacher readiness for mobile learning in Javanese language education and offering empirical evidence to support targeted digital literacy programs and innovative mobile-based learning for improving instructional quality and preserving local culture. The study employed an exploratory quantitative design involving 26 junior

high school teachers using a standardized instrument measuring Perceived Ease of Use (PEOU), Perceived Usefulness (PU), and dimensions of technological, pedagogical, and psychological readiness. Data were analyzed using descriptive statistics and trend pattern analysis. The findings reveal an asymmetry between perceived ease of use and perceived pedagogical usefulness, significantly influenced by age and teaching experience. This study extends empirical evidence within the context of local language education and proposes data-driven intervention frameworks to strengthen teacher capacity in sustainable technology integration.

Keywords: *Mobile Learning; Javanese Language; Teacher Readiness.*

INTRODUCTION

The digital era has driven all stakeholders in the education sector to continuously adapt to rapid technological advancements. The integration of information and communication technology (ICT) into educational environments has shifted instructional paradigms from teacher-centered approaches toward learner-centered and connectivity-based learning (Alqahtani & Rajkhan, 2020). One significant manifestation of this development is mobile learning (m-learning), an instructional approach that utilizes portable devices such as smartphones or tablets to access learning materials, conduct assessments, and facilitate flexible interaction both inside and outside the classroom (Hwang & Tsai, 2011). Mobile learning offers flexibility in terms of time and place, supports personalized learning experiences, and enhances learner engagement more effectively compared to conventional instruction (Sung et al., 2016).

Globally, the implementation of mobile learning has become a leading trend in modern education. Studies conducted in various countries indicate that the successful adoption of mobile learning is not solely determined by the availability of devices and infrastructure, but also by the readiness of users, particularly teachers, to integrate the technology into teaching and learning activities (Chiu & Churchill, 2016). Teachers play a crucial role as educational innovators, serving as mediators between technology and students' learning experiences. Therefore, teachers' readiness and perceptions of mobile learning are fundamental aspects that determine the success of digital transformation in education.

In Indonesia, educational digitalization has become a national strategic priority through the *Merdeka Belajar* program and the Digital Education Transformation initiative launched by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek, 2023). However, numerous studies have reported a significant gap between policy direction and practical implementation in schools. Teachers across different educational levels continue to face challenges such as limited digital literacy, unequal internet infrastructure, and insufficient pedagogical readiness to effectively utilize digital media (Turrohmah & Suryanto, 2023). Although many teachers have adopted digital platforms such as Google Classroom or WhatsApp Groups, their use often remains limited to task distribution rather than facilitating interactive and meaningful digital pedagogy (Winda & Dafit, 2021).

This situation is also reflected among teachers at the junior high school level, which represents a crucial transitional stage for the development of students' learning skills. Limitations in digital literacy and insufficient experience with technology often hinder the optimal adoption of mobile learning. Several studies have demonstrated that younger teachers tend to adopt technology more quickly due to their familiarity with digital devices,

while older teachers generally require a longer adaptation period (Champa et al., 2019). These conditions indicate that teachers' readiness for mobile learning is heterogeneous and depends on various factors, including demographic characteristics, teaching experience, and perceptions of technological ease of use and usefulness.

In the Indonesian context, one area of instruction that faces significant challenges in technology integration is Javanese language education. As a local content subject, Javanese language plays an essential role in preserving regional cultural identity and values amid the pressures of globalization (Rumita et al., 2025). However, several studies have reported that Javanese language instruction in junior high schools tends to remain conventional, monotonous, and less engaging for digital-native students (Sukoyo et al., 2024). The use of interactive digital media, particularly mobile learning, is still limited to individual teacher initiatives. In fact, this technology carries great potential for enriching Javanese language learning experiences through interactive features such as digital *Aksara Jawa* reading exercises, culture-based quizzes, and multimedia projects on traditional arts.

Research by Chaidir et al. (2025) indicates that approximately 60% of teachers in Indonesia lack strong information and communication technology (ICT) skills, while only a small proportion hold formal ICT qualifications. This finding indicates that digital technology proficiency among teachers remains basic and unequal, potentially hindering the optimal use of technology in the learning process. Consistent with these findings, research by Purba et al. (2025) on junior high school teachers in Medan City indicates that teachers are not yet fully capable of pedagogically integrating digital tools into learning activities. Although some teachers have used digital devices, their use is still limited to technical and administrative functions and has not been directed toward developing innovative, interactive, and student-centered learning strategies. This situation means that the use of technology has not had a significant impact on improving the quality of learning.

In the context of Gresik Regency, which is characterized by diverse social and educational settings, the implementation of mobile learning in Javanese language subjects remains relatively new. Although some schools have adopted online learning applications, their utilization levels are highly dependent on teacher readiness. A number of Javanese language teachers in this region have begun using smartphone-based media for assignments and discussions; however, many teachers still lack hands-on experience in designing mobile-based instruction. This condition therefore provides a strong rationale for conducting an exploratory study on the perceptions and readiness of junior high school Javanese language teachers toward the integration of mobile learning in the region.

Theoretically, this study is grounded in two major frameworks: the Technology Acceptance Model (TAM) proposed by Davis (1989) and the Mobile Learning Readiness Model (MLR) developed by Aljuaid (2014). TAM explains that technology acceptance is determined by two key constructs, namely Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). PEOU refers to the extent to which users perceive a technology as easy to learn and operate, whereas PU reflects the extent to which users believe that the technology can enhance their performance (Venkatesh & Bala, 2008). In the educational context, both constructs have been proven to significantly influence teachers' readiness to integrate technology into instructional practices (Ismail et al., 2022).

Similarly, the Mobile Learning Readiness Model (MLR) proposed by Aljuaid (2014) provides a more specific conceptual framework regarding individual and institutional readiness to adopt mobile learning. This model highlights four core dimensions of readiness: (1) technological readiness, (2) skills readiness, (3) psychological readiness, and (4)

pedagogical readiness. In the context of teachers, readiness is not only determined by their technical ability to operate digital devices, but also by their perceptions of the pedagogical benefits of mobile learning and their psychological willingness to shift from traditional instructional practices to digital-based learning environments (Sulistyowati & Asriati, 2023).

Recent studies have also demonstrated that teachers' mobile learning readiness is strongly influenced by their perceptions of the ease of use and usefulness of the technology (Herlinawati et al., 2024). Teachers who perceive mobile learning as easy to use tend to show higher readiness to integrate technology into their instructional practices (Umar et al., 2021), whereas those who perceive technology as inefficient or difficult to operate are more likely to resist innovation (Ngabiyanto et al., 2021). Therefore, the integration of TAM and MLR in this study provides a more comprehensive approach to understanding teacher readiness in the context of mobile learning.

However, a review of the literature reveals several significant research gaps. First, most studies on mobile learning readiness in Indonesia have predominantly focused on higher education settings or on subjects such as science and foreign languages (Alyoussef, 2021), while research on local content subjects such as Javanese language remains limited. Second, previous research has largely assessed mobile learning readiness from the perspective of students, rather than teachers, who serve as key actors in the adoption of educational technology (Wardani & Munir, 2023). Third, only a few studies have specifically integrated the TAM and MLR frameworks to examine the relationship between perceived ease of use, perceived usefulness, and teacher readiness in the context of secondary schools.

The lack of empirical studies addressing mobile learning readiness among Javanese language teachers at the secondary school level highlights the need for an exploratory investigation. Teacher readiness encompasses technological competence, digital pedagogical skills, and psychological readiness to accept and implement mobile-based instructional innovations. An exploratory research approach is therefore considered appropriate to generate an initial mapping of teachers' perceptions and the contextual factors influencing their readiness, given that the integration of mobile learning in local-content subjects remains relatively underdeveloped and lacks a strong theoretical and empirical foundation (Creswell, 2003). Consequently, this study aims to provide essential empirical insights to guide the development of targeted implementation strategies that align with the needs of teachers in the secondary education context.

Furthermore, this study also considers demographic factors such as age and teaching experience, which have been demonstrated in previous research to influence technology adoption (Wangdi et al., 2023). Younger teachers are generally more adaptable due to their early exposure to digital technologies, whereas more experienced teachers may possess stronger pedagogical knowledge but face greater technical challenges in operating mobile devices. Therefore, the analysis of teacher readiness in this study does not only examine general perceptions but also takes into account demographic variations that may affect the outcomes.

Debates within the literature also emerge regarding the dominant factors influencing mobile learning readiness. Several studies emphasize the importance of technological factors such as device accessibility and network availability (Harto et al., 2023), while others highlight psychological aspects and the school's organizational culture (Aldosemani et al., 2019). These differing perspectives indicate that teacher readiness should be viewed as a multidimensional phenomenon that simultaneously encompasses technical, affective, and pedagogical dimensions. The MLR utilized in this study enables the incorporation of such complexity, while

also explaining the relationship between perceived ease of use and perceived usefulness (TAM) in shaping teacher readiness.

Accordingly, this study focuses on an exploratory analysis of the perceived readiness of Junior High School Javanese language teachers in Gresik Regency to implement mobile learning. This exploratory focus aims to map the current state of teacher readiness based on their perceptions of the Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of mobile technologies in the context of Javanese language instruction. The findings are expected to provide an empirical foundation for developing teacher training policies and more effective digitalization strategies for local-content education.

This research provides theoretical and practical contributions to the study of teacher readiness for the implementation of mobile learning, particularly in the Javanese language subject, which has received limited research. Theoretically, this study enriches the literature on teacher readiness to integrate mobile technology into regional language learning by considering aspects of digital competence, attitudes, and pedagogical readiness. Practically, the results of this study provide an empirical overview of the level of readiness of Javanese language teachers in Gresik Regency to implement mobile learning. This can serve as a basis for schools and policymakers in designing more targeted digital literacy training programs. Furthermore, this research encourages innovation in mobile technology-based Javanese language learning as an effort to improve the quality of learning while preserving local culture.

METHOD

This study employs an exploratory research design to gain an in-depth understanding of teachers' readiness for mobile learning integration (Rosiva et al., 2022). The target participants are Junior High School Javanese language teachers in Gresik Regency who have not been extensively involved in or exposed to mobile-learning-based instructional practices. Unlike previous studies that primarily examined students' direct experiences with mobile learning such as the work by Pangestu (2023) this research focuses on teachers' perspectives and readiness as the key implementers of educational innovation.

This study uses an exploratory research design because it aims to gain an in-depth understanding of the readiness of junior high school Javanese language teachers in implementing mobile learning, a topic that has been relatively limited in research, especially from the perspective of teachers as the main implementers of learning innovations. An exploratory approach is considered appropriate when the phenomenon being studied does not yet have a strong empirical basis and requires an initial mapping of the perceptions, attitudes, and readiness of the research subjects (Granić & Marangunic, 2015) (Granić, 2022). Such an approach is commonly used in educational technology adoption studies to uncover initial factors that influence user acceptance and readiness for digital learning innovations, including the use of the Technology Acceptance Model to explain determinants such as Perceived Ease of Use and Perceived Usefulness in the context of mobile learning readiness.

Specifically, this study investigates their perceptions regarding the adoption of mobile learning in Javanese language instruction by incorporating two core determinants of the Technology Acceptance Model (TAM), namely Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). These constructs are positioned within the framework of Mobile Learning Readiness, as proposed by Aljuaid (2014), to capture teachers' direct judgments toward the practicality and pedagogical benefits of using mobile learning in the classroom.

This study used total sampling, selecting the entire population of 26 Javanese language teachers from junior high schools in Gresik Regency as the sample. Total sampling was chosen

because the number of subjects was relatively small and all members of the population had characteristics relevant to the research objectives, thus enabling the researcher to obtain a more comprehensive and representative picture of teacher readiness without a high risk of bias (Cresswell & Poth, 2018). A quantitative survey method was employed, and data were collected using an online questionnaire distributed randomly to the target population. The respondents included 7 male teachers (26.9%) and 19 female teachers (73.1%). The questionnaire also incorporated demographic items related to age and teaching experience. Age was categorized into three groups: below 35 years, 36–45 years, and above 45 years. Teaching experience was categorized into four groups: less than 5 years, 6–15 years, 16–20 years, and more than 20 years. The demographic distribution of respondents is presented in Table 1.

Tabel 1. Demographic Characteristics of Participants (n = 26)

Variable	Category	Frequency	Percent (%)
Gender	Male	7	26.9
	Female	19	73.1
Age	< 35 years	17	65.4
	36–45 years	5	19.2
	> 45 years	4	15.4
Teaching Experience	< 5 years	12	46.2
	6–15 years	9	34.6
	> 20 years	5	19.2
Mobile Learning Usage	Never used	10	38.5
	Less than once per week	7	26.9
	More than once per week	7	26.9
	1–2 times per month	2	7.7

The demographic distribution presented in Table 1 indicates that the majority of participating teachers were female (73.1%), and most were under the age of 35 (65.4%). In addition, nearly half of the respondents had less than five years of teaching experience (46.2%). This demographic profile reflects a relatively young teaching workforce with diverse experience levels, which may contribute to varied perspectives regarding their readiness to integrate mobile learning into classroom instruction.

Teachers' readiness can also be identified through their ownership of digital devices such as smartphones, tablets, or laptops, which support instructional activities and facilitate mobile learning experiences in the classroom. Consistent with their responses to the questionnaire, all participating teachers reported owning at least one personal device most commonly a smartphone that can be utilized for teaching purposes. Device ownership was measured using a dichotomous response scale ("yes" or "no") based on the Guttman scale. The availability of these devices among teachers is presented in the table below as supporting evidence of their technological readiness.

Tabel 2. Availability of Teachers' Digital Devices

Device	Frequency	Percent	Mean
Smartphone	26	100	1,0000
Tablet	2	7,7	0,0769
Laptop	19	73,2	0,7308

The table above presents the descriptive statistics for the availability of three instructional devices smartphones, tablets, and laptops. The findings indicate that all respondents owned a smartphone (N = 26, 100%), as reflected in the mean score of 1.0000, demonstrating a highly consistent use of mobile devices among Javanese language teachers in Gresik Regency. This result aligns with the findings of Harmiyanti and Astuti (2024), who state that frequent use of digital gadgets among learners can reduce social gaps and alleviate stress (Harmiyanti & Astuti, 2024).

Regarding tablet ownership, although the majority of respondents reported not using tablets for instructional purposes (92.3%), a small proportion (7.7%) indicated that they utilize tablets as a teaching device. The mean score of 0.0769 further reflects the relatively low frequency of tablet usage compared to smartphones, suggesting that tablets have not yet become a common technological resource in Javanese language instruction.

Accordingly, in terms of laptop ownership, although a considerable majority of respondents (73.1%) reported using laptops for instructional purposes, approximately 26.9% indicated that they do not utilize laptops as a teaching device. The mean score of 0.7308 suggests that laptops are more commonly used than tablets but remain less frequently utilized compared to smartphones.

This study integrates the Technology Acceptance Model (TAM) to examine teachers' readiness and perceptions regarding the use of mobile learning media, specifically in the context of Gresik Regency (Pangestu et al., 2023). TAM incorporates several key variables, including Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BIU), and Actual System Use (ASU). The complete structure of these variables and their interrelationships is illustrated in the conceptual model shown in Figure 1 (Marangunić & Granić, 2015).

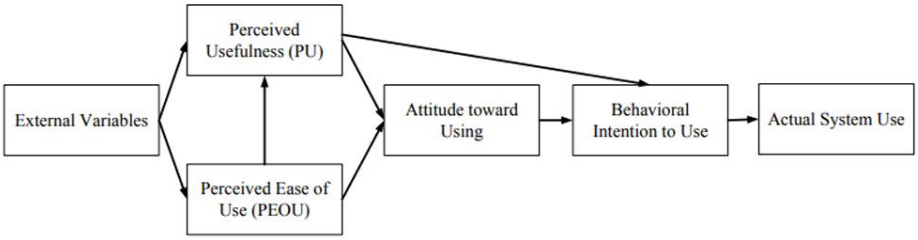


Figure 1. Technology Acceptance Model

The questionnaire administered in this study was designed to examine teachers' perceptions based on the two core determinants of the Technology Acceptance Model, namely Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) (Ahmad et al., 2010). In addition, this study incorporates an extended determinant, Mobile Learning Readiness (MLR), which serves as a framework for assessing teachers' preparedness to adopt mobile learning in instructional practices. The operational structure of these determinants is presented in Figure 2 below.

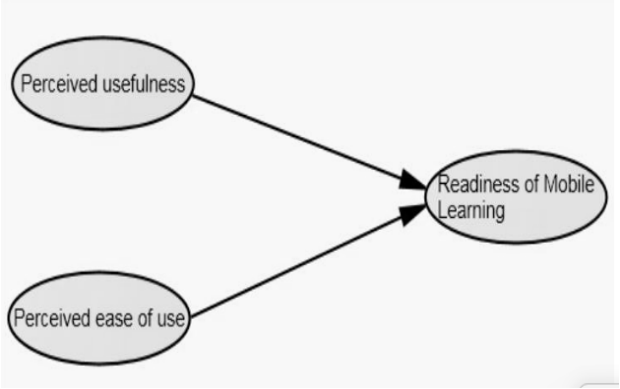


Figure 2. The Hypothesized Mobile Learning Readiness Model

The questionnaire items provided to the teachers were aligned with the determinants mentioned above. Prior to data analysis, the questionnaire was tested for reliability to examine the consistency of each statement item. SPSS was used to calculate the consistency level of each item using Cronbach's Alpha, with a minimum acceptable alpha value of > 0.6.

Table 3. Realibility Statistics

Cronbach's Alpha	N of Items
0.928	13

The descriptive statistics of the questionnaire respondents are presented in a table displaying the percentage of responses. Descriptive statistics provide a summary of respondents' answers to each question, as well as a measure of variability through SPSS (Statistical Product and Service Solution) (Rosiva et al., 2022).

RESULT

This section presents the results obtained from the field data for each variable. The findings describe teachers' perceptions regarding mobile learning readiness or the preparedness of utilizing mobile based teaching devices in the classroom. The respondents consisted of 26 teachers from a total of 9 schools in Gresik Regency. The questionnaire results provided the total scores for each variable which include perceived ease of use perceived usefulness and mobile learning readiness as summarized below:

Table 4. Patterns of Teacher Readiness in Mobile Learning Usage

Descriptive Statistics	*Perceived Ease of Use*	*Perceived Usefulness*	*Mobile Learning Readiness*
Mean	15,19	0.92	20,08
Median	15	17	20
Standard Deviation	2,815	3,348	3,908
Maximum Value	20	20	25
Minimum Value	10	9	11
Total Score	395	426	522

Based on the patterns of teacher readiness in mobile learning usage shown in Table 4 there are three main determinants perceived ease of use perceived usefulness and mobile learning readiness. The perceived ease of use shows a mean score of 15.19 indicating that teachers generally perceive mobile learning devices as sufficiently easy to operate. The

median value of 15 further reflects that most respondents provided scores close to the mean suggesting that the majority of teachers believe mobile learning tools are relatively easy to use. The standard deviation of 2.815 demonstrates that there is still noticeable variability in teachers perceptions regarding the ease of use. A maximum score of 20 and a minimum score of 10 indicate a wide distribution in responses which implies that while some teachers find the technology very easy to use others still perceive challenges in operating it effectively.

The perceived usefulness shows a mean score of 0.92 indicating that teachers perceptions of the benefits of mobile learning are relatively low. The median score of 17 reflects noticeable variation in how teachers evaluate the usefulness of mobile learning. The standard deviation of 3.348 is relatively high demonstrating substantial differences in teachers judgments regarding the value of mobile learning in instructional practice. The maximum score of 20 and the minimum score of 9 indicate a broad range of responses showing that while some teachers perceive mobile learning as highly beneficial others consider the technology to offer limited usefulness.

The mobile learning readiness shows a mean score of 20.08 indicating a relatively high level of preparedness among teachers and suggesting that most respondents are ready to implement mobile learning in their instructional practices. The median score of 20 which is nearly identical to the mean further reinforces that the majority of teachers exhibit a strong level of readiness. The standard deviation of 3.908 reflects a moderate degree of variation indicating some differences between teachers who feel highly prepared and those who feel less confident in adopting mobile learning. The maximum score of 25 and the minimum score of 11 illustrate a wide range of readiness levels showing that while some teachers are very well prepared to integrate mobile learning into their classrooms others still perceive themselves as less ready to implement this approach.

Teacher Perceptions Based on Perceived Ease of Use (PEOU)

Table 5. Total Data Distribution of Perceived Ease of Use (PEOU)

Valid	*Frequency*	*Percent*	*Cumulative Percent*
10	1	3,8	3,8
11	2	7,7	11,5
12	1	3,8	15,4
13	3	11,5	26,9
14	4	15,4	42,3
15	4	15,4	57,7
16	4	15,4	73,1
17	1	3,8	76,9
18	2	7,7	84,6
19	1	3,8	88,5
20	3	11,5	100,0

Based on the distribution data presented in the table describing teachers perceptions of Perceived Ease of Use (PEOU), it is evident that the majority of teachers consider mobile learning to be relatively easy to use. This finding is significant because within the Technology Acceptance Model PEOU represents a key determinant influencing the adoption of educational technologies including mobile learning. The table indicates that the mean PEOU score is 15.19 with a maximum score of 20 and a minimum score of 10 which suggests that most teachers perceive mobile learning tools as easy to operate. Furthermore the standard

deviation of 2.815 reflects a moderate degree of variability in teachers perceptions indicating differences in the extent to which individual teachers experience ease of use.

Previous studies have noted that younger teachers tend to adapt more rapidly to digital tools while older teachers may encounter greater challenges in navigating technological features even though overall perceptions still indicate ease of use in general as highlighted (Champa et al., 2019). Therefore the findings of this study suggest that positive perceptions of PEOU form an important foundation for teachers readiness to adopt mobile learning in Gresik Regency. This implies that policies or professional development programs emphasizing the simplicity and user friendliness of mobile learning technologies may further enhance teacher readiness to integrate mobile learning into the instruction of Javanese language in schools.

Teacher Perceptions Based on Perceived Usefulness (PU)

Table 6. Distribution of Perceived Usefulness (PU)

Valid	*Frequency*	*Percent*	*Cumulative Percent*
9	1	3,8	3,8
10	1	3,8	7,7
11	1	3,8	11,5
12	1	3,8	15,4
13	2	7,7	23,1
14	1	3,8	26,9
15	2	7,7	34,6
16	1	3,8	38,5
17	4	15,4	53,8
18	4	15,4	69,2
19	2	7,7	76,9
20	6	23,1	100,0

Based on the data presented in the table illustrating the frequency and percentage distribution for Perceived Usefulness PU it is evident how teachers evaluate the benefits of mobile learning in the instructional process. Within the framework of the Technology Acceptance Model TAM perceived usefulness is a critical determinant influencing technology adoption in educational settings particularly mobile learning. According to Venkatesh and Bala 2008 the higher the perceived usefulness of a technology the greater the likelihood that users will accept and integrate it into their practice.

The table indicates that the mean PU score is 15.4 with the highest frequency occurring at the score of 20 represented by 6 teachers or 23.1 percent while the minimum score recorded is 9. The standard deviation of 3.5 reveals substantial variability in teachers perceptions regarding the usefulness of mobile learning. This suggests that while some teachers find mobile learning highly beneficial for improving instructional activities others perceive limited value in its use. These findings align with prior studies demonstrating that perceived usefulness is strongly influenced by individual experience with technology (Venkatesh & Bala, 2008a). The notable variation observed in PU scores further reflects differing levels of comfort and adaptation to digital tools among teachers which is consistent with existing literature indicating that technology adoption is shaped by personal experiences and perceptions of its educational benefits (Umar et al., 2021).

Based on these results it can be concluded that although many teachers acknowledge the usefulness of mobile learning there remains considerable diversity in their evaluations of

its benefits. This highlights the need for targeted training and enhanced digital literacy development to ensure that teachers can fully leverage the advantages of mobile based instructional tools. In this context the findings of the present study reinforce that perceived usefulness plays an essential role in shaping teacher readiness to integrate mobile learning into their instructional practices supporting the importance of strengthening technology oriented educational policies that focus on enhancing understanding and perceived value of digital tools in the teaching and learning process (Ngabiyanto et al., 2021).

Teacher Perceptions Based on Mobile Learning Readiness (MLR)

Table 7. Distribution of Perceived Mobile Learning Readiness (MLR)

Valid	Frequency	Percent	Cumulative Percent
11	1	3,8	3,8
12	1	3,8	7,7
15	2	7,7	15,4
16	1	3,8	19,2
17	1	3,8	23,1
18	1	3,8	26,9
20	7	26,9	53,8
21	4	15,4	69,2
22	1	3,8	73,1
23	1	3,8	76,9
24	1	3,8	80,8
25	5	19,2	100,0

Based on the frequency distribution presented in the data, it is evident that teachers exhibit varying levels of readiness in adopting mobile learning within the instructional process. According to the Mobile Learning Readiness Model (MLR), readiness is influenced by multiple dimensions, including technological readiness, individual skills, and psychological preparedness. The table shows that the mean MR score is 20.4, with the highest frequency recorded at a score of 20 (7 teachers, 26.9%), and a minimum score of 11. The standard deviation of 3.5 indicates considerable variation in teachers' readiness to engage with mobile learning.

A substantial proportion of teachers demonstrate high readiness, as reflected in the concentration of responses at higher values such as 20, 21, and 25. However, a smaller group shows lower readiness levels, with scores of 11, 12, and 16. These lower scores may be attributable to limited digital skills, insufficient technological exposure, or psychological barriers related to shifting from traditional instructional approaches to technology-supported learning environments. This pattern aligns with findings in the literature, which suggest that Mobile Learning Readiness is shaped by perceptions of ease of use, perceived usefulness, and psychological willingness to adopt new pedagogical methods (Sulistyowati & Asriati, 2023).

Overall, the results indicate that most teachers in Gresik Regency exhibit a relatively high level of readiness to adopt mobile learning. Nevertheless, the presence of a smaller subset of teachers with lower readiness underscores the need for targeted interventions, particularly in the form of continuous professional development and capacity-building initiatives. The findings therefore highlight the importance of developing educational policies that enhance both technological and psychological readiness to ensure a smooth transition toward mobile-based instruction. These results further support the recommendation that training programs

should be aligned with the varying levels of readiness identified through the MLR framework employed in this study (Aljuaid et al., 2014).

DISCUSSION

Mobile learning has progressed from a simple technological innovation into a transformative paradigm in twenty first century education, particularly within primary and secondary school contexts. The evolving learning patterns of digital native students who increasingly rely on mobile devices require a shift in pedagogical design from static instructional models to approaches that are flexible, adaptive, and centered on learners. International studies consistently highlight that the effectiveness of mobile learning is not determined by the sophistication of the devices but by the readiness of key actors in the education system, especially teachers, to integrate mobile technologies with appropriate pedagogical strategies (Sung et al., 2016).

Within the broader discourse on educational technology adoption, the Technology Acceptance Model (TAM) continues to serve as a foundational theoretical lens for examining patterns of user acceptance. Davis (1989) posits that perceived ease of use and perceived usefulness constitute the central determinants shaping individuals evaluative judgments and subsequent behavioral intentions toward technological systems. The refinement of TAM by Venkatesh and Bala (2008) further illustrates that these perceptual constructs extend beyond cognitive appraisal and are simultaneously moderated by contextual influences such as organizational culture and prior user experience. Within the educational domain, these factors are reflected in school level norms and teachers established pedagogical routines that shape their engagement with emergent technologies.

Despite its enduring influence, a growing body of contemporary scholarship suggests that TAM alone offers an insufficient explanatory account of the multidimensional nature of teacher readiness for mobile learning integration. Marangunic and Granić (2015) argue that the model exhibits a degree of linearity that limits its sensitivity to psychosocial dynamics and infrastructural disparities that frequently characterize educational environments. In response to these limitations, the Mobile Learning Readiness Model (MLR), introduced by Aljuaid (2014), extends the analytic framework by incorporating psychological pedagogical technological and social readiness as interdependent constructs that collectively influence adoption behavior. This expanded perspective highlights that teacher readiness encompasses not only technical proficiency but also an epistemological orientation that enables educators to conceptualize technology as an instrument for pedagogical transformation.

To understand the relationship between the Technology Acceptance Model (TAM) and mobile learning readiness, it is essential to explore how TAM has been applied to study the acceptance of mobile learning technologies and the factors influencing this readiness. TAM is a widely used model to predict and explain user acceptance of technology. It primarily focuses on two key constructs: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) (Mutambara & Bayaga, 2021). There are factors Influencing Mobile Learning Readiness. Researchers can formulate it into several key factors, which can be categorized into perceived usefulness, perceived ease of use, self-efficacy and enjoyment, external influences, and perceived convenience. Here is a detailed summary of how each factor impacts mobile learning readiness:

1. Perceived Usefulness (PU). PU refers to the degree to which a person believes that using mobile learning will enhance their learning performance. PU significantly affects

students' behavioral intention to adopt mobile learning. It is a primary driver for students' willingness to engage with mobile learning technologies (Dung et al., 2025).

2. Perceived Ease of Use (PEOU). PEOU is the degree to which a person believes that using mobile learning will be free of effort. PEOU is crucial in shaping students' intentions to use mobile learning. It directly influences the adoption of mobile learning by making the technology more accessible and less intimidating (Sabah, 2016).
3. Self-Efficacy and Enjoyment. Self-efficacy refers to the belief in one's ability to successfully use mobile learning, while enjoyment pertains to the pleasure derived from using mobile learning. Both self-efficacy and perceived enjoyment are significant factors for mobile learning readiness (Sukmaningsih, 2019). High levels of self-efficacy and enjoyment enhance students' motivation and willingness to adopt mobile learning (Sakir, 2026).
4. External Influences. External influences include social factors, infrastructure readiness, and facilitating conditions that affect mobile learning adoption. Social influence, infrastructure readiness, and facilitating conditions play a pivotal role in shaping mobile learning readiness. These factors indirectly affect PU and PEOU by providing the necessary support and resources (Nikolopoulou et al., 2021).
5. Perceived Convenience. Perceived convenience refers to the flexibility and ease with which mobile learning can be integrated into daily routines. Mobile learning's flexibility and convenience are highly valued by students, contributing to their readiness to adopt this mode of learning. The ability to learn anytime and anywhere is a significant advantage that drives mobile learning adoption (Cheung et al., 2011; Li & Huang, 2025).

There is a correlation between the Technology Acceptance Model (TAM) and Mobile Learning Readiness in the educational context. An integrative study by Xu (2025) Mobile Learning Readiness: An Integrative Theoretical Perspective, confirms that the main constructs of TAM, especially Perceived Ease of Use and Perceived Usefulness, are key determinants in shaping individual readiness to adopt mobile learning, both from technical and pedagogical aspects. This finding is reinforced by Sulistiowati (2025) empirical research in Examining Mobile Learning Adoption: The Role of Ease of Use, Usefulness, and Intention, which shows that perceived ease and usefulness of technology significantly influence the intention and behavior of using mobile learning. Conceptually and empirically, both studies indicate that the higher the level of technology acceptance based on TAM, the higher the user's readiness to implement mobile learning, so that TAM can be positioned as a relevant theoretical foundation in measuring and explaining Mobile Learning Readiness.

Reputable international studies increasingly demonstrate that teachers resistance to educational technologies often arises not from limitations in technical proficiency but from uncertainty regarding the pedagogical value such technologies may offer. Siddiq & Scherer (2019) highlight that teachers who do not perceive a clear and direct connection between technology use and the enhancement of learning quality frequently exhibit forms of latent resistance even when they outwardly express positive attitudes toward innovation. This phenomenon corresponds with the findings of Scherer & Teo (2019) who asserts that teachers attitudes toward technology are shaped by their underlying professional beliefs about the nature of teaching and learning and that these beliefs function as filters through which technological interventions are interpreted and evaluated.

Recent studies provide further evidence that the integration of digital technologies in secondary schools remains constrained primarily by limited pedagogical readiness among teachers despite the relatively adequate availability of technological devices. Venty (2025) reports that insufficient pedagogical capacity continues to impede meaningful technology adoption, indicating that access alone does not translate into effective instructional innovation. Similarly, Yaqin & Prasojo (2024) identify persistent regional digital divides in Indonesia which exacerbate fragmentation in the implementation of technology based learning. As a result, technology adoption often becomes administrative and symbolic rather than genuinely transformative. These findings collectively underscore that the central challenge does not lie in the mere presence of technology but in the reconstruction of pedagogical meaning and practice.

The complexity becomes more pronounced in subjects rooted in local cultural knowledge such as Javanese language education. Rumita Suyanto and Wibawa (2025) demonstrate that regional language subjects are frequently positioned at the margins of curriculum policy which leads to a tendency for technological innovation to be concentrated in subjects assessed at the national level (Rumita et al., 2025). In this context Sukoyo et al. (2024) emphasize that the success of digitalizing local language instruction depends heavily on teachers ability to connect culturally embedded content with digital media in ways that are contextually grounded and pedagogically reflective. Such evidence highlights that effective mobile learning integration in culturally oriented subjects requires not only technological competence but also a deep cultural pedagogical sensitivity.

Overall, the synthesis of international and national literature indicates that teacher readiness for mobile learning constitutes a multidimensional phenomenon that cannot be sufficiently explained through a purely technical perspective. The integration of TAM and MLR provides a more comprehensive conceptual foundation for understanding the ways in which perceptions attitudes professional beliefs and sociocultural contexts interact to shape technology adoption behaviors. Consequently, examining teacher readiness in the use of mobile learning particularly in subjects grounded in local cultural knowledge becomes essential for bridging the gap between educational digitalization policies and the practical realities of classroom pedagogy.

CONCLUSION

The findings of this study indicate that the readiness of Javanese language teachers in Gresik Regency to utilize mobile learning varies. While most teachers consider mobile devices easy to use, perceptions of their usefulness in learning are uneven, indicating a gap between technological mastery and pedagogical application. Demographic factors, particularly age and teaching experience, also influence teacher perceptions, with younger teachers tending to be more adaptable than more experienced teachers. The integration of the Technology Acceptance Model (TAM) and the Mobile Learning Readiness Model (MLR) has proven effective in explaining the relationship between ease of use, perceived benefits, and teacher technological and psychological readiness, thus providing a basis for formulating more targeted policies and training.

However, this study is limited by its limited regional coverage and the use of perception-based data, making the results less representative of the broader situation of Javanese language teachers. Therefore, further research is recommended to involve a more diverse range of regions and respondents, employ a mixed-methods approach, and examine

additional factors such as institutional support, technological infrastructure, and the direct impact of mobile learning on student learning outcomes.

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