

## TECHNOLOGY READINESS SEGMENT ANALYSIS OF TEACHERS IN USING MOBILE-BASED TEACHING APPLICATIONS: AN INDOONESIAN CONTEXT

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### Abstract

Nowadays, technology has become an essential aspect of teacher professional development. In the Indonesian context, mobile-based teaching applications enable teachers to develop their pedagogical skills. However, their practical use depends significantly on their technology readiness level. This study explores primary school teachers' technology readiness to use the Emancipated Teaching Application. The study involves 303 primary school teachers in one of the regencies in Java, Indonesia. It uses five-point Likert items covering the four dimensions of the Technology Readiness Index. It investigates the readiness index of the teachers and their segment analysis to offer essential insight for further investigation into teachers' perception of using technology for their professional development. It also examines the key factors influencing teachers' adoption of the emancipated teaching platform. The study's findings showed that teachers' readiness index for technology adoption was a positive value of 3.77 on a 5-point scale, indicating a moderate to high readiness.

Meanwhile, the segment analysis demonstrated that explorers were the biggest among the five user segments, and the hesitators were the smallest. The key motivating factors for the teachers to adopt the Emancipated Teaching Platform were lesson planning, flexibility, adaptability, teachers' competence, and computer self-efficacy. Theoretically, the study's result extends the application of the TRI 2.0 framework in the educational domain, particularly in the context of primary teachers' settings, where user segmentation is less explored. Continuous professional development (CPD) using technology could be tailored based on the user profile.

**Keywords** – Segment analysis, Technology readiness index, Professional development, Technology adoption.

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## 1. Introduction

Nowadays, information technology has significantly affected multiple aspects of human lives. Technology has played a crucial role in education provision at all levels, including primary, secondary, and higher

education (Cabaleiro-Cerviño & Vera, 2020). Educational technology has increasingly gained popularity in the education industry, offering numerous opportunities for students and educators alike (Parveen & Ramzan, 2024). By exploring its various advantages, it becomes evident that technology can revolutionise how students learn, engage, and excel in their educational journeys (Rustamjonovna, 2023; Vergara-Mendoza, Briones-Zambrano, & Moreira-Baquerizo, 2024). With the advancement of technology, educators and learners worldwide can connect and interact with each other on various social media platforms, resulting in a global exchange of knowledge and ideas.

Since the COVID-19 pandemic, education has come to an era where technology is unavoidable. Schools had to change their practices. Students and teachers were obligated to utilize any technology they could access, from low to high technology, and incorporate it into their teaching and learning activities (Starkey, Shonfeld, Prestridge & Cervera, 2021). During the pandemic, online learning was a visible alternative from primary school to higher education. The shifting teaching situation impacted not only students but also teachers in general. Teachers must adjust and develop their competence in designing and delivering their teaching (Munday, 2021). Teachers' pedagogical and technological knowledge came into play to produce a good teaching delivery.

Responding to the pandemic situation (during and post- COVID-19), the Indonesian Government, through its Ministry of Education, has launched a program called emancipated learning consisting of episodes to support and improve the quality of learning. One of the episodes is called the emancipated teaching platform (Platform Merdeka Mengajar). It is a platform that aims to provide opportunities for teachers to develop their competence anytime and anywhere (Finnaka, 2022; Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 2022). The platform was launched in 2022. It provided thousands of references for the teachers to develop their teaching practice based on the emancipating curriculum. The platform covers aspects of planning and assessment. Teachers could access the example of any lesson plan they might adapt to suit their needs. They can also use the platform to deliver the assessment to the students. The teachers could utilize the platform to teach, learn, and produce their work about their profession as teachers.

The Emancipated Teaching Platform is also a way for teachers to develop professionally. Previously, teachers could only access training or workshops that the regional education authorities facilitated. It implied that those professional development trainings were unavailable for every teacher. The platform has erased the time and place boundaries that previously enabled teachers to develop their professional skills and competencies in teaching, as it is widely accessible. The Emancipated Teaching Platform is a mobile-based application easily accessed from a teacher's mobile phone. However, it also provides web access for those who prefer to access the platform from their laptops or desktops (Kemendikbudristek, 2023).

Most of the studies on the Emancipated Teaching Platform have focused heavily on how the platform could develop teachers' teaching competencies in the emancipated curriculum implementation (Alamsyah & Saleha-Gandana, 2023; Husnatu-Ramdini, Nur-Sadiyah & Qurrota'aini, 2022; Hijriani, Amaluddin & Larekeng, 2024; Ma'ruf & Yasin, 2024; Sariman & Mujahidin, 2023; Pramelani & Safrezi, 2024; Ramdani, Yuliyanti, Rahmatulloh & Suratman, 2022; Triningsih, Utami, Murtiyasa & Setyaningsih, 2024). Little is known about the teachers' readiness to use the platform. We could not just assume that all the teachers were ready to adapt to this new technology. A previous study has investigated the factors affecting teachers' low access to the emancipated teaching platform (Ambawani, Mulya-Kusuma & Sumardjoko, 2023). Their analysis revealed that time constraints, data packages, and a focus were necessary to optimize the platform's use for their teaching practice. Therefore, seeking information on their readiness to use the platform is essential. It will shed light on the readiness level of the teachers so that policymakers can get recommendations on how to maximize the use of the emancipated teaching platform for teachers' professional development.

The study aims to answer three research questions; (1) Are the teachers ready to use the emancipated teaching application? (2) What are the distinct teacher segments for using emancipated teaching

applications? (3) What motivates teachers to use emancipated teaching applications? Addressing these questions will provide a key insight into a strong basis for further investigation into teachers' perceptions of using technology for their professional development. It will also help develop better policies in teaching professional development.

### **1.1. Literature Review**

This study integrates multiple theoretical lenses to explain primary teachers' readiness and participation in Continuous Professional Development (CPD) through digital technologies. The framework starts with motivational factors, followed by psychological readiness; Technology Readiness Index (Parasuraman & Colby, 2015), and concludes with the link between digital competence and TRI using the Emancipated Teaching Platform. An integrative theme across the framework is that motivation and technology readiness influence teachers' digital competence (Ghomi & Redecker, 2019) development and are ultimately enriched through CPD practices (Jensen, Sonnemann, Roberts-Hull & Hunter, 2016).

Using technology to support teaching and learning activities has become teachers' key technology integration practice. Every use of technology has two sides: motivating factors that promote technology adoption and inhibiting factors that deter its use (Parasuraman & Colby, 2015). Teachers' motivation to use technology can stem from either intrinsic motivation, which is internal, or extrinsic motivation, which is external.

The intrinsic motivation that impacts teachers' technology practices could stem from their self-efficacy in using technology. Technology self-efficacy refers to the perceived ability to use technology and the availability of technology resources that can be accessed (Teo, 2009). There are four sources of self-efficacy (Bandura, 1993): mastery experience, vicarious experience, verbal or social persuasion, and individual emotions (Bandura, 1986, 1993). What teachers believe about their ability to utilise technology in their teaching could drive their technology practice. A recent study showed that intrinsic motivation impacted the intention to use ChatGPT to support active learning (Lai, Cheung & Chan, 2023). Intrinsic motivation also predicted technology engagement (Dunn & Kennedy, 2019).

Extrinsic motivation in the use of technology influences the predicted usage of technology (Dunn & Kennedy, 2019). The construct refers to the activity to achieve separable outcomes (Ryan & Deci, 2000). This type of motivation is usually prompted by external variables, for example, penalty, incentive, ego involvement, identification, and integrated regulation (ibid). In the context of teachers using technology, this type of motivation could be in the form of a policy imposed on the teachers to use a particular tool. In the Indonesian context, the Government provides and encourages teachers to use the Emancipated Teaching Platform to support teaching practices and their continuing professional development. When teachers self-examine the regulations and align them with their values or needs, it could impact their extrinsic motivation to use the imposed technology or tools.

### **1.2. Technology Readiness Index**

Parasuraman and Colby define technology readiness as the tendency of people to embrace and employ new technologies to achieve goals in their daily and work lives (Parasuraman & Colby, 2015). The concept of technology readiness is closely related to adopting new technology. Further, Parasuraman and Colby explicate that technology readiness encompasses positive and negative attitudes towards the adopted technology.

The technology readiness index consists of multifaceted constructs. It comprises four dimensions: optimism, innovativeness, discomfort, and insecurity. The first two dimensions are often called enablers, while the latter are known as inhibitors. Understanding the interplay between the four dimensions enables us to see the perceived ease of use as usually depicted in the construct and provides a different perspective on technology adoption. The following section will delve into these constructs, exploring their specific contributions to the overall TRI score and their implications in understanding individual responses to technological advances.

The first enabler in this framework is optimism. In technology adoption, optimism generally refers to a positive attitude and expectation that the adopted technology will positively impact performance and improve efficiency and overall well-being. This optimistic view could influence and encourage individuals and organisations to embrace and integrate new technology. A recent global technology report has emphasised that optimism in emerging technology adoption has been key to optimising productivity and improving customer engagement (KPMG, 2023). In addition, optimism in the utility of emerging technologies such as artificial intelligence and advanced connectivity technologies motivates technology adoption (McKinsey & Company, 2023).

Innovativeness is the second enabler in the technology readiness index framework. This construct reflects the extent to which individuals tend to be pioneers or early adopters of new technologies (Parasuraman & Colby, 2015). It is related to a proactive approach to exploring and experimenting with cutting-edge solutions. Furthermore, innovativeness enables individuals to position themselves as leaders in adopting technological innovations. Individuals with high personal innovativeness will likely explore and embrace new technology to enhance their capabilities (Thakur, Angriawan & Summey, 2016). Those individuals are usually the ones who can drive the adoption of emerging technologies and shape preferences in their environment. Innovativeness also influences their technology adoption (Alfaro-Serrano, Balantrapu, Chaurey, Goicoechea & Verhoogen, 2021; Parasuraman & Colby, 2015; Teo, 2011).

The inhibitors in the technology readiness index are discomfort and insecurity (Parasuraman & Colby, 2015). They inhibit individuals from adopting new technologies, causing them to be hesitant to explore and embrace new tools or technologies. The first inhibitor is discomfort; it refers to the perception of a lack of control over new technologies. The feeling of being overwhelmed can lead to a reluctance to engage with technology. This aligns with the Technology Acceptance Model's perceived ease of use and usefulness (Venkatesh, Thong & Xu, 2016). Further, they acknowledge that discomfort could negatively impact perceived use and hinder adoption despite its benefits. The second inhibitor is insecurity. It underscores the skepticism and distrust towards technology. It concerns technology's reliability and security (Parasuraman & Colby, 2015). These feelings may lead individuals to avoid or even reject adopting technology. For example, individuals are concerned about whether the tools or technology they use are secure, which could affect their decision to continue using that technology.

In the context of teachers' continuous professional development, all the dimensions of the Technology Readiness Index offer an understanding of how teachers interact with the digital platform, such as the Emancipated Teaching platform. The enabling factors reflect teachers' beliefs about how technology can improve the quality of their teaching and their willingness to explore digital platforms, which ultimately impact their professional development (Parasuraman, 2000). On the other hand, both discomfort and insecurity dimensions exemplify teachers' anxiety about their failure in using technology. It may cause teachers' disengagement with technology. Understanding this psychological disposition enables those teacher professional development designers to provide not only technical workshops but also to develop teachers' confidence and their digital agency, contributing to technology adoption and sustainable digital initiatives.

### **1.3. Teachers' Digital Competence**

The fast development of technology has impacted many aspects of human life, from personal use to educational practices. Integrating technology in education has offered numerous benefits, including enhanced learning experiences for students and teachers. One of them is the opportunity to increase the accessibility and availability of information. It enables teachers to empower students to participate in self-directed learning (Latorre-Medina & Tnibar-Harrus, 2023). Moreover, the use of interactive digital resources like educational applications, virtual simulations, interactive web-based applications, and multimedia presentations has proven to contribute to increased student engagement and retention of course material (Khan, Shah & Rasool, 2019).

Apart from the advantages of technological advancement, challenges and drawbacks cannot be avoided. Educational institutions must consider these challenges to design effective strategies for addressing them.

Despite the opportunities presented by technological development, there is undoubtedly concern regarding the possibility of over-reliance on digital technology. This over-reliance could inhibit the development of essential interpersonal skills. Therefore, investigating their readiness level could shed light on whether the enablers outweigh the inhibitors.

With the rapid development of technology in educational settings, it is also essential to closely monitor the competence required by teachers, especially their digital competence. Digital competence encompasses a range of skills necessary to deliver effective teaching and learning in a digital environment, which is inextricably linked to the modern educational landscape. It includes how teachers efficiently use technology to collaborate with their colleagues, manage digital resources, and orchestrate technology to deliver their teaching and learning activities (Ghomi & Redecker, 2019).

Possessing digital competence enables teachers to effectively integrate technology into their teaching practices, providing students with engaging learning experiences. It may range from planning to assessment stages. Digital competence even emphasizes teachers' professional engagement (ibid). Teachers with high levels of digital competence were likely to integrate innovative teaching strategies. They also demonstrated that their digital competence influenced all dimensions of students' engagement (Aldhaen, 2024). Consequently, enhancing teachers' digital competencies through continuous professional development (CPD) is crucial. Teachers participate in CPD to develop their knowledge and skills (Desimone, 2011; Jensen et al., 2016) to improve the quality of their teaching and assessment for a better learning environment for their students (Borko, Jacobs & Koellner, 2009; Jensen et al., 2016; Koellner, Seago, Riske, Placa & Carlson, 2024). Teachers' learning could occur collaboratively—through peer discussions, mentoring, or communities of practice—or individually, via self-directed study and personal reflection.

The community of practice framework could enhance practitioners' skills in the CPD environment. This framework emphasizes how a group shares a topic of interest and collaboratively learns and develops their knowledge concerning their area of interest (Wenger, 1999). The community of practice allows the teachers to use the space to strengthen their digital competence as part of their CPD practices. This could be implemented through various online platforms, one of which, in this case, is an emancipated teaching platform.

Digital competence is crucial in shaping teachers' readiness index, particularly in adopting the Emancipated Teaching Platform. Teachers with high-level digital competence may demonstrate high optimism and innovativeness in adopting technology; therefore, they are more prepared to incorporate the Emancipated Teaching platform into their professional development practices (Ilomäki, Paavola, Lakkala, & Kantosalo, 2016; Parasuraman, 2000). This digital competence enables teachers to both access and utilize platform features to improve the quality of their teaching and learning practices.

## 2. Methodology

This study tried to investigate the teachers' readiness level in using the emancipated teaching platform in Indonesia. This study involved primary teachers using the platform for at least a year in a regency in Central Java, Indonesia. Most teachers are familiar with technology such as smartphones, laptops, and the internet to support their teaching and learning activities. The regional Education institution encouraged teachers to utilize the emancipated teaching platform to support their continuing professional development by engaging in independent training to enhance their teaching competence. This study aimed to answer three research questions. They are (1) Are the teachers ready to use the emancipated teaching application? (2) What are the distinct teacher segments for using emancipated teaching applications? (3) What most motivates teachers to use emancipated teaching applications?

A quantitative approach was employed to answer the research questions posed in this study. This approach best measures the phenomenon's prevalence (Creswell, 2012). Furthermore, the quantitative approach minimizes researcher bias by using structured data collection instruments (Bhattacharjee, 2012; Marzano, Vegliante & Angelis, 2015). The data collection instrument was a modified survey adapted from the Technology Readiness Index 2.0 (Parasuraman & Colby, 2015). The sampling method implemented in this

study was non-probability sampling, purposive sampling. This sampling method was employed because the study aimed to explore primary school teachers who use the Emancipated Teaching Platform. The sample was primary school teachers who met the practical criteria of geography proximity, which was in Boyolali Regency, easy accessibility, had already used the emancipated teaching platform, and were willing and had the time to take the survey (Bhattacharjee, 2012; Creswell, 2012; Doebel & Frank, 2024; Etikan, Musa & Alkassim, 2016). Doebel and Frank (2023) suggest that the sample could be broadened by incorporating an online method. In this case, Google Forms reached potential participants covering a broader area. Geographically, the study setting was located in a regency covering an area of over 1,000 square kilometers. The study included 303 participants from 61 primary schools. They fill out the consent form before taking the survey.

The survey comprised 16 items covering the four constructs of the Technology Readiness Index 2.0 (Parasuraman & Colby, 2015): Optimism, innovativeness, discomfort, and insecurity. It utilized a five-item Likert scale for measuring the construct. The survey also collected demographic information from the participants, including their age, duration of use of the emancipated teaching platform, and the devices they used to access it. Internal consistency reliability was calculated using Cronbach's alpha (Bhattacharjee, 2012; Creswell, 2012) to ensure the reliability of the survey items. Meanwhile, the validity was demonstrated by calculating the convergent and discriminant validity (Bhattacharjee, 2012).

Once the data was collected, the data analysis started. The data were analyzed statistically using the Jamovi tool. Firstly, the study described the demographic data of the teachers participating. Secondly, descriptive statistics were presented to determine the central tendency of the data (Bhattacharjee, 2012; Creswell, 2012). At this stage, data preparation was conducted. It comprised data coding, data entry, and handling missing values (Bhattacharjee, 2012). Data coding refers to converting data from the survey into a numeric format, while data entry involves entering the data into a statistical program. The last step in data preparation was identifying missing values and determining if respondents had not completed some survey items (ibid). After conducting all the statistical analysis, the data interpretation and cross-examination with existing studies were presented.

### 3. Results

This section presents the findings from the data analysis and discusses how each research question is addressed throughout the study. A total of 303 teachers participated in this study. The demographic data showed that participants were between 20 and 50, with only 22% aged between 20 and 30. Regarding the devices used to access the emancipated teaching platform, 98% of the participants used their smartphones, and most (224 teachers) have used the platform for over a year.

The internal consistency reliability result demonstrated that all the items are reliable in measuring the consistency of different items of the same contracts. Both Cronbach's alpha and McDonald's omega indicated that the items accurately measured the construct. Table 1 presents the reliability statistics for the scale constructs.

	<b>Mean</b>	<b>Cronbach's <math>\alpha</math></b>	<b>McDonald's <math>\omega</math></b>
Optimism	4.17	0.93	0.93
Innovativeness	3.31	0.78	0.79
Discomfort	2.18	0.86	0.87
Insecurity	2.61	0.67	0.72
Overall TRI	3.67	0.81	0.83

Table 1. Scale Reliability Statistic

Pearson's product-moment was analyzed to ensure the validity of the investigated construct. The correlation coefficient of all the items in the questionnaire ranged from 0.12 to 0.76, which was bigger than the r table coefficient, 0.13. This indicated that all the items were valid.

### 3.1. Technology Readiness Index

Table 2 presents the descriptive statistics of the Technology Readiness Index 2.0 for adopting an emancipated teaching platform with a sample of 303 participants with no missing data. The study revealed that participants were highly optimistic about using the emancipated teaching platform, with a mean score of 4.17. Regarding innovativeness, they exhibited a moderate level with a mean of 3.11. They showed lower means in the areas of discomfort and insecurity. Meanwhile, enabling factors, optimism, and innovativeness showed higher means of scores (4.17 and 3.31). The total TRI score was 3.77. This study's data tend to be normally distributed with skewness values between  $-0.77$  and  $0.75$ . Considering the normality test resulted in this study, the Kruskal-Wallis test was employed because it is more robust to potential violations of parametric assumptions, particularly in ordinal categorical data such as Likert-scale responses. The Kruskal-Wallis test was administered to examine whether teachers' years of usage experience affected their perception across the four constructs. The significant difference in the optimism construct, as indicated by  $p < 0.05$ , suggested that optimism varied by experience level. Likewise, all the innovativeness items showed a significant difference, demonstrating that teachers with longer experience using the platform perceived themselves as more innovative in adopting technology (see Table 3). This study's participants exhibited an overall TRI score of 3.77. It posited the teachers' readiness level to use the Emancipated Teaching Platform positively, reflecting that those teachers experienced a positive adoption of the platform.

	Optimism	Innovativeness	Discomfort	Insecurity	Total TRI
N	303	303	303	303	303
Missing	0	0	0	0	0
Mean	4.17	3.31	2.18	2.61	3.77
Standard deviation	0.66	0.74	0.80	0.71	0.52
Skewness	-0.77	0.049	0.37	0.075	0.22
Std. error skewness	0.14	0.14	0.14	0.14	0.14
Kurtosis	1.19	-0.104	-0.012	0.083	-0.46
Std. error kurtosis	0.28	0.28	0.28	0.28	0.28

Table 2. Descriptive analysis of the TRI Constructs

	$\chi^2$	<i>df</i>	<i>p</i>
OPT1	4.802	1	0.028
OPT2	8.256	1	0.004
OPT3	9.864	1	0.002
OPT4	9.626	1	0.002
INN1	10.866	1	< .001
INN2	8.005	1	0.005
INN3	8.153	1	0.004
INN4	17.512	1	< .001
DISC1	1.426	1	0.232
DISC2	0.798	1	0.372
DISC3	0.684	1	0.408
DISC4	0.151	1	0.697
INS1	6.483	1	0.011
INS2	0.386	1	0.535
INS3	0.162	1	0.687
INS4	0.461	1	0.497

Table 3. The Kruskal-Wallis Test Result

### 3.2. Segmentation Analysis of Emancipated Teaching Platform User Based on Technology Readiness Index 2.0

The segmentation analysis was performed using a latent class analysis. Five segments resulted from the Latent Class Analysis; they were labeled as follows: skeptics, explorers, avoiders, pioneers, and hesitators (Parasuraman & Colby, 2015). Their most significant segment was the explorers, with 100 participants. This group exhibited a high degree of motivation, signified by the higher mean score of 4.37 for optimism and 3.33 for innovativeness (see Table 4).

Segment	N	Optimism	Innovativeness	Discomfort	Insecurity	Total TRI
Skeptic	89	3.91	3.32	2.94	3.13	3.29
Explorers	100	4.37	3.33	2.30	2.67	3.68
Avoiders	54	4.55	3.27	1.22	2.23	4.09
Pioneers	35	3.11	2.43	1.96	2.37	3.30
Hesitators	25	4.95	4.51	1.38	1.68	4.60

Table 4. Latent Class Segmentation Using Technology Readiness Index (TRI) 2.0

The following chart (see Figure 1) describes the segmentation analysis on all items in the four dimensions of the Technology Readiness Index. The Y axis represented the mean score of each item, ranging from 1.38 to 4.95. Meanwhile, the X axis displayed the 16 questionnaire items used to measure the Technology Readiness Index 2.0 dimensions. The five colors represented the segment label of the user of the emancipated teaching platform in this study. Surprisingly, the hesitators had the highest mean score (4.51) in the innovativeness dimension, and the pioneers indicated the lowest mean score of 2.43. Despite their hesitation in using the technology, this group possessed the highest innovativeness among all other segments. An outstanding phenomenon was the Pioneers group. Despite the label being pioneers, they had the lowest score, 2.43.

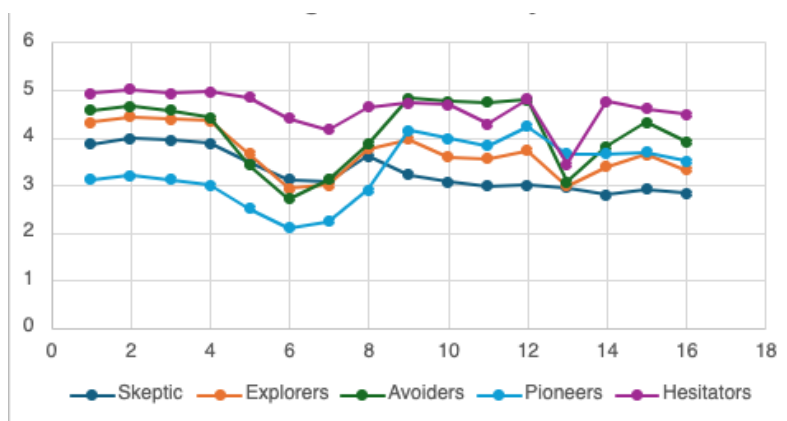


Figure 1. Segmentation Analysis of the Users

The Skeptic user group demonstrated a moderate level of innovativeness with a mean score of 3.32. They could resist the use of the Emancipated Teaching Platform, but at the same time, they did not completely oppose its use to support their activities as teachers. The teachers might rationally evaluate the use of technology before deciding whether to adopt it. The data showed they were optimistic but felt discomfort, as indicated by their mean score (see Table 4). Regarding the discomfort the teachers experienced, both avoiders and hesitators demonstrated a high level of discomfort, which might have influenced their decision to adopt the Emancipated Teaching Platform, with a means score of 1.22 and 1.38, respectively. The avoiders, however, avoided using the Emancipated Teaching Platform; they had higher innovativeness than the pioneers (means score of 2.33).



### 3.3. Key Motivators for Teachers in Adopting the Emancipated Teaching Platform

The optimism and innovativeness dimensions indicated the motivating factors of technology adoption, which in this study was the adoption of the Emancipated Teaching Platform. The result showed that the aspects contributing to the motivating factors comprised teachers' perceived usefulness of the platform in helping them in lesson planning, the flexibility offered by the platform, teachers' adaptability, competencies, and computer self-efficacy. Table 5 presents the descriptive statistics of the items contributing to the motivating factors.

	Lesson Planning	Flexibility	Adaptability	Teachers' Competence	Computer Self-Efficacy
N	303	303	303	303	303
Missing	0	0	0	0	0
Mean	4.14	4.24	3.61	4.15	3
Median	4	4	3.5	4	3
Standard deviation	0.76	0.72	0.69	0.69	0.92
Skewness	0.64	-0.83	-0.15	-0.68	0.02
Kurtosis	0.60	1.43	-0.19	0.88	-0.24

Table 5. Descriptive Statistics of the Motivating Factors

The flexibility offered by the Emancipated Teaching Platform was the highest contributor to what motivated teachers to adopt the technology, with a mean score of 4.24. Meanwhile, the teachers' adaptability toward the technology was moderate, with a mean score of 3.61. Surprisingly, teachers' beliefs about their ability to deal with technology were the lowest among other aspects.

Flexibility, adaptability, and teachers' competence had skewness to the negative side, reflecting that most teachers positively rated themselves in these three areas. These three aspects had a high mean score, demonstrating that teachers felt confident in their general teaching abilities. Both lesson planning and teachers' competence showed high mean scores of 4.14 and 4.15.

## 4. Discussion

The study investigates the readiness level of teachers to use the Emancipated Teaching Platform in the Indonesian context. The study suggests that the technology readiness level of the teachers in this study is positive. It offers empirical proof from primary school teachers showing optimism about using the digital teaching platform to support their teaching and learning activities. The high TRI score in this study correlates with the intention and actual use of technology (Venkatesh & Bala, 2008). The high optimism value aligns with Parasuraman and Colby (2015), suggesting that users with a positive level of optimism will likely adopt the technology. Meanwhile, the moderate value of innovativeness implies that there is room for fostering more teachers' pioneering attitude in using the Emancipated Teaching Platform.

The study also reveals that teachers' motivation in using the Emancipated Teaching Platform is their belief that the technology they use increases the effectiveness of their teaching tasks. In line with that, the study demonstrates that what motivated them to use the teaching digital platform is teachers' optimism and the innovativeness of the platform that they perceive (Krismiyati & Latuperissa, 2024). The fact that the platform facilitates the teachers' lesson planning and capacity building contributed to their extrinsic motivation (Dunn & Kennedy, 2019). It predicts that their positive use of the technology, in this case, would be the positive use of the Emancipated Teaching Platform.

Parasuraman and Colby (2015) categorised two constructs; optimism and innovativeness into motivating or enabling factors. On the contrary, less than 10% of the participants were in the hesitator segments. They exhibit a high mean score in the inhibiting factors. Interestingly, they have high motivation and a high degree of inhibition. It implies that the teachers were highly motivated to use the Emancipated

Teaching Platform. However, they find it overly negative simultaneously, as they feel it creates discomfort and insecurity. It suggests that they are low on adoption due to these inhibiting factors. The inhibiting factors of discomfort and technology contribute to their technology readiness. This implies that the teachers in this study do not experience negative or challenging situations when adopting technology. Their insecurity is higher than the discomfort dimension, it aligns with a previous study (Jihad-Mohaidat, 2013)

The segmentation analysis conducted in this study reveals five distinct segments: skeptics, explorers, avoiders, pioneers, and hesitators. The most significant number is the explorers. The explorers group in this study suggests that they are open yet vulnerable if faced with barriers like technology complexity or a lack of training they receive. This group will likely be easily attracted to adopting new technology (Parasuraman, 2000). The second biggest group is the skeptics. The skeptic users' low score demonstrates resistance and low self-efficacy. These users might disengage with the new technology due to anxiety or technostress (Tams & Dulipovici, 2024). The pioneers seem to have a low innovativeness score. What could have happened is that they may have been among the early users of the Emancipated Teaching platform, but then they do not actively seek innovation. This finding is aligned with the notion that innovativeness does not always correspond to early adoption of technology (Alfaro-Serrano et al., 2021; Parasuraman & Colby, 2015). Meanwhile, the avoiders are the least among the other groups. The findings of the studies imply that they may perceive the use of technology as disruptive to their work routine. They might want to hang on to their traditional practices. Moderate innovativeness might correspond to resistance to change, such as adopting the Emancipated Teaching Platform (Teo, 2011).

The key motivating factors in this study are optimism and innovativeness, covering aspects such as lesson planning skill, flexibility, adaptability, teachers' competence, and computer self-efficacy. Teachers' self-efficacy, indicating how they perceive themselves to be able to work with technology, is low compared to other aspects. It demonstrates that the teachers in this study had low confidence in using the emancipated teaching platform, compared to other competencies. Although computer self-efficacy plays a role in motivating teachers to use technology, the low score for this aspect aligned with what Teo (2011) suggested: teachers still face challenges in integrating technology. Their other competencies, including lesson planning and teachers' competence, are fundamental to their continuing professional development, contributing to their teaching practice's success (Schmidt, Koehler & Shin, 2009). These aspects are interconnected, as continuing professional development emphasizes strengthening teachers' skills in both planning and teaching (Gadušová & Predanociová, 2018; He, 2024).

Teachers in this study perceive the Emancipated Teaching Platform as a valuable resource for enhancing their motivation to use the platform, from planning stages to teaching activities. The five factors played an essential role in their professional development. Lesson planning, teachers' competence, and computer self-efficacy are sources of their intrinsic motivation; meanwhile, their adaptability and the platform's flexibility serve as extrinsic motivations (Dunn & Kennedy, 2019).

The theoretical implications of this study's findings are that they extend the use of the TRI 2.0 framework in the educational domain, particularly in the primary teachers' setting, where user segmentation is less explored. Continuous professional development (CPD) using technology could be tailored based on the user profile. Specific group empowerment will be very helpful in introducing new technology and serving as peer mentors.

## 5. Conclusions

In summary, the study's significant findings showed that teachers in this study demonstrated positive adoption experience towards the Emancipated Teaching Platform. The segmentation presented five groups, with the biggest group of explorers and hesitators being the smallest segment. The explorers indicated that the teachers had high motivation towards using the technology, as opposed to their negative experience. The key factor that influenced teachers in adopting the Emancipated Teaching Platform was its flexibility, allowing them to access it anytime and anywhere. Their ability to adapt to

technological improvements motivated them to adopt the platform to support their teaching and learning activities. However, this study had its limitations, such as using non-probability sampling. Besides, it was geographically limited to one region in Central Java Province. Therefore, future studies could expand the geographic scope by including schools from several areas to improve the generalizability and comparative value of the findings. This study aimed to conduct a segment analysis of how teachers utilize the Emancipated Teaching Platform at the primary level; it would broaden the horizon on how teachers use the platform if it could also explore high school teachers. This study provides insight into a broader understanding of teachers' technology adoption by illustrating how technology readiness and institutional education support intersect to shape teachers' behaviour across diverse educational contexts. The segmentation analysis may inform the design of more personalised professional development initiatives beyond the Indonesian context, particularly in similar settings with digital transformation challenges.

In addition, future research could also investigate how the platform is transformed or updated and what their readiness and acceptance levels are.

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The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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