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Elementary Teachers' Acceptance of Merdeka-Based Digital Teaching and Learning Media: A Study of the UTAUT Model

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Abstract: Elementary Tea	chers' Acceptance of Merdeka	-Based Digital Teaching and
Learning Media: A Study o	of the UTAUT Model. Objective:	The purpose of this study is to
assess the level of acceptability	y among elementary school teachers	towards Merdeka-based learning
media and teaching materials	. It is imperative to comprehend the	he factors that influence teacher
acceptability in order to guaran	ntee the efficacy of digital learning 1	nedia, given the growing demand
for technology integration in e	education. Methods: The correlation	nal survey method along with the
Unified Theory of Acceptance	e and Use of Technology (UTAUT)	model approach are employed in
this investigation. As many as	s 100 elementary school instructors	in Lampung Province who have
experience using Merdeka-bas	sed media and teaching materials we	ere included as respondents. Data
analysis was conducted usin	g the Structural Equation Modeli	ng (SEM) technique to test the
relationships between variables	s in the acceptance model, and data co	llection was implemented through
closed questionnaires. Finding	gs: Teachers' acceptability levels are	e positively affected by media and
instructional materials that adh	nere to the Merdeka framework. The	primary factors that contribute to
this acceptance are attitudes to	oward technology, affective needs, r	outines of using ICT, perceptions
of learning opportunities, self-	efficacy, and social influence. Teach	ers' behavioral intentions and ICT
usage patterns can be significa	antly elucidated by the SEM model	that was developed. Self-efficacy
and effort expectancy variable	es were found to have direct effects,	, while social influence tended to
have a lower impact. Conclusi	on: Teachers' acceptance of educati	onal innovations can be improved
through the use of interactive a	nd challenging technology-based lea	arning media. This acceptance has
favorable consequences for th	e adoption of innovative teaching s	strategies that are consistent with
the requirements of 21st-centu	ry education, as well as for the enha	ancement of student engagement,
learning perseverance, and a p	profound comprehension of the subj	ect matter.

Keywords: merdeka-based teaching and learning media, teacher acceptance model, UTAUT Model, elementary teacher.

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INTRODUCTION

The complexity of global problems and challenges necessitates that learners possess a high level of learning resilience in order to contend with 21st-century education. It is imperative that students develop a profound conceptual comprehension, as they are not only required to superficially memorize information but also to acquire resilience. This comprehension encompasses integrated cognitive abilities, such as the capacity to interpret data or events, apply knowledge in novel contexts, view issues from a variety of perspectives, empathize with others, and consistently engage in self-assessment and reflection (Wiggins, 2011; McTighe, 2013). To facilitate the development of these competencies, teachers are accountable for the strategic design of learning experiences that are contextually appropriate, meaningful, and relevant to the requirements of modern students.

The empirical evidence suggests that students, particularly those in elementary education, continue to exhibit insufficient learning resilience. In some studies, the current generation is even referred to as the "strawberry generation" because of their fragility, inclination to give up easily, and inconsistency in managing academic pressure (Smith et al., 2121). Also, observations indicate that students frequently experience fatigue and rapidly become fatigued during lessons in a multitude of schools in West Java Province. Among the primary causes is the improper selection of educational media. In general, educators implement conventional, noninteractive media that neglect to account for the diverse learning styles of their students (Liu et al., 2022). Nevertheless, the instructors' inadequate competencies and the low level of acceptability of digital innovations have impeded the optimal utilization of the numerous digital technologies that are accessible in numerous schools (Kim et al., 2023).

The *Merdeka* flow approach is provided by the *Merdeka* curriculum as a guide for the development of structured, interactive, and differentiated learning media and materials in response to these challenges. This method allows students to learn at their own pace and in accordance with their interests and capabilities, while also fostering independent exploration through contextual, pertinent, and engaging media. This methodology aligns with the sentiment of Merdeka Belajar, which prioritizes the development of essential competencies and character. Consequently, it is crucial to investigate the degree to which educators are prepared and willing to incorporate Merdeka-based media and teaching materials into elementary school education, particularly in light of the numerous factors that influence the adoption of technology in the field of education.

The conceptual comprehension and learning resilience of students have been enhanced through the development of a variety of technology-based media innovations. Previous studies have shown that the integration of technology into the educational process can enhance student engagement, perseverance, and comprehension. Smith et al. (2020) found that the implementation of gamification elements can enhance affective engagement and learning persistence. Li and Zhang (2021) have shown that interactive ebooks that incorporate multimedia elements, such as animations, videos, and interactive assessments, can improve students' conceptual comprehension. In the same vein, Ahmed et al. (2022) noted that the incorporation of augmented reality (AR) technology into science education can enhance students' capacity to comprehend esoteric concepts. Wang and Lee (2024) discovered that AI-based learning platforms that adapt materials to students' learning styles have a positive impact on the depth of their understanding.

The Merdeka flow is the framework by which educational media and materials are presently being developed in Indonesia. The following are the components of this flow: Concept Exploration, Collaboration Space, Guided Reflection, Contextual Demonstration, Understanding Elaboration, Inter-Material Connections, and Real Action. One of the innovations that are currently being developed is the concept of starting from the self. The purpose of this framework is to promote active student participation, cultivate holistic comprehension, and strengthen the interconnections between learning concepts. The utilization of this method by educators remains restricted, despite the fact that it has led to the development of a diverse array of innovative media products that have been extensively investigated for their impact on students.

Despite the fact that a substantial number of elementary school instructors have yet to implement the digital media based on Merdeka, they continue to use conventional media. This suggests a discrepancy between the development of media innovations and their adoption by educators. Despite the fact that the majority of previous research has focused on the effectiveness of media on students, there are a limited number of studies that investigate the approval of the media by instructors, particularly in the Indonesian context. Conversely, the extent to which instructors are prepared, tolerant, and able to integrate digital learning media into their teaching practices significantly impacts the success of its implementation. The primary goal of this investigation is to rectify this discrepancy. This challenge necessitates an exhaustive study that implements a proven technology acceptance theory framework. One of the most frequently employed models in this context is the Unified Theory of Acceptance and Use of Technology (UTAUT). This model has the potential to clarify a multitude of factors that impact the adoption of technology; however, its integration into the context of Merdeka-based learning media in elementary schools remains uncommon. Subsequently, the objective of this investigation is to assess the extent to which elementary school instructors have implemented Merdeka-based media and instructional materials by utilizing the UTAUT strategy as an analytical framework. The primary predictors of technology adoption behavior are behavioral intention and facilitating conditions, as well as several constructs identified in this model, such as affective need (Shukla, 2021), ICT usage habits (Kim & Lee, 2020), perceived learning

opportunities, self-efficacy, social influence (Balkaya & Akkucuk, 2021), and attitude (Liebenberg et al., 2018). Specifically, the purpose of this investigation is to investigate

- 1. What the intention to utilize digital media is substantially influenced by the teacher's performance expectations, as outlined in the Merdeka framework.
- 2. What is the impact of simplicity of use on the intention to use digital media?
- 3. What is the impact of support conditions (training and facilities) on the intention to use?
- 4. Is the intention to employ digital learning media influenced by teacher self-efficacy?
- 5. What is the impact of social norms (support from colleagues, superiors, and the environment) on the intention to use technology?

Consequently, the objective of this study is to identify and evaluate the factors that influence the adoption of Merdeka-based digital learning media by elementary school teachers, utilizing the UTAUT framework. It is anticipated that the results of this study will aid in the enhancement of the implementation strategies of sustainable and pertinent learning media at the elementary education level.

METHOD

Participants

The population of this research was divided into two primary groups: professional teacher education students from universities in West Java and Lampung Provinces and Elementary School teachers who had implemented the Merdeka Curriculum. The population of educators consisted of educators who had a minimum of ten years of teaching experience and had actively employed digital-based learning media in the teaching and learning process. In the interim, students of professional teacher education who were a part of the population had participated in training sessions that were based on the Merdeka flow and focused on the design and utilization of digital learning media.

The purposive sampling technique was employed to select respondents in accordance with the study's objectives. These criteria encompass experience in the implementation of technology in education, pertinent professional backgrounds, and active participation in the dissemination of learning media. The total number of respondents effectively collected in this study was 100, which included teachers and PPG students. This number was deemed sufficient for analysis using the Structural Equation Modeling method based on Partial Least Squares (SEM-PLS). Table 1 displa comprehensive demographic data from the respondents, including th distribution of gender, age, and educational attainment.

		Total	Percentage
Gender	Male	9	9%
	Female	91	91%
Age	21-30	87	87%
	30-40	13	13%
Education	Bachelor	98	98%
	Master	2	2%

Table 1. Demographic information

Research Design and Procedures

This study employs a quantitative correlational design with an explanatory survey approach to evaluate the impact of factors in the UTAUT model on the adoption of digital media by PPG teachers and students. Based on extant theoretical models, this design was selected to enable researchers to establish the relationship between independent and dependent variables. As follows are the investigation procedures implemented: (a) media planning and development, researchers created an interactive learning site that includes material on the human respiratory system for fifth-grade elementary school students. Based on the Merdeka flow principle, which prioritizes flexibility in learning, real-world relevance, and independent exploration, the development was implemented, (b) initial implementation, the learning site was evaluated in a public elementary school in West Java as part of the initial implementation test to examine the initial effectiveness of the media developed and the level of student engagement, (c) data collection and dissemination, presentations and demonstrations were

conducted both online and offline with respondents (instructors and students of teacher professional program) to provide dissemination media. Time was allocated to respondents for autonomous exploration of the site, (d) *fulfilling the questionnaire*, following exploration, respondents were requested to complete an online questionnaire that was based on the UTAUT model. The questionnaire had gone through a pilot test in the past. The research period, which encompassed the media development process, initial implementation, dissemination implementation, and survey data collection, extended for three months.

Instrument

A closed questionnaire that was based on a 5-point Likert scale was the main instrument employed in this study. The questionnaire assessed five primary constructs in the UTAUT model: performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention. The questionnaire was divided into two sections: demographic data of respondents, which included age, gender, institution of origin, and

teaching experience, and a combined total of 34 statements that represented the five constructs. Each construct was assessed using five to seven objects. The instrument in question is an adaptation of the one developed by Venkatesh et al. (2003), which has been tailored to the elementary education system in Indonesia. expert judgment by learning technology experts and empirical testing through experimental testing on small groups were employed to conduct the instrument validation process. In SEM-PLS, validity was evaluated using discriminant and convergent analysis. The Cronbach's alpha value was employed to assess reliability, and all constructs had values exceeding 0.80, suggesting that they exhibited exceptional internal consistency.

Data Analysis

The collected data were analyzed using the Structural Equation Modeling (SEM) method with the Partial Least Squares (PLS) approach, executed through the latest version of SmartPLS software. This technique was chosen because it can accommodate relatively small sample sizes, non-normal data distributions, and models with many latent constructs. The stages of analysis conducted include Outer Model Evaluation, to test convergent validity using the Average Variance Extracted (AVE e" 0.50), Composite Reliability (CR e"0.70), and discriminant validity among constructs. Inner Model Evaluation, to assess the strength and significance of the relationships between variables in the model using path coefficient, R-square (R²), and significance testing through bootstrapping with 5000 resampling, with the significance criterion used in result interpretation being p < 0.05. This analysis produces information regarding the direct and indirect effects among UTAUT variables on the intention and habits of using digital media based on the Merdeka flow.

RESULT AND DISCUSSION

A data evaluation of the questionnaire responses was conducted prior to conducting structural model testing in SEM to ascertain the general characteristics of the respondents' responses. Table 2 displays the descriptive statistics of 34 statement items that assess a variety of constructs in the UTAUT model, including performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), and behavioral intention (BI). Additionally, the items assess several additional constructs, including perceived usefulness (A), need for innovation (AN), and intention to use digital media in learning about respiratory topics (IUH and PLD).

In general, the average values of all items on a 1–5 Likert scale range from 3.97 to 4.62. This suggests that respondents generally concur with the statements provided. The median values, which primarily range from 4 to 5, also validate the conclusion that respondents' perceptions of digital media are overwhelmingly favorable when viewed through the Merdeka thinking framework. The majority of items have standard deviation values between 0.5 and 0.8, which suggests a moderate diversity of responses. Nevertheless, certain items, such as EE3 (0.95) and IUH1 (0.88), exhibit a higher degree of variation, suggesting that there are substantial disparities in the perceptions of respondents regarding the convenience of use and their intention to use digital media.

The skewness analysis indicates that the majority of items have negative values, indicating that the data tends to skew to the right or that the majority of respondents provide responses in the "agree" to "strongly agree" categories. This supports the notion that the digital media that has been developed is viewed favorably. Items AN3 (-1.548) and AN2 (-1.173) exhibit the highest skewness, suggesting that the perception of the

necessity for innovation in education is extremely robust. The respondents' responses are firmly concentrated around the mean, as evidenced by the high kurtosis values of several items, including AN3 (4.523) and SE4 (2.919), which suggests that their perceptions are consistent.

Item	Mean	Std. Dev	Item	Mean	Std. Dev
A1	4.52	0.61	PE1	4.33	0.62
A2	4.62	0.54	PE2	4.35	0.59
A3	4.31	0.67	PE3	4.40	0.63
A4	4.54	0.59	EE1	4.09	0.76
AN1	4.32	0.65	EE2	4.18	0.77
AN2	4.32	0.76	EE3	3.97	0.95
AN3	4.43	0.70	SI1	4.12	0.74
AN4	4.39	0.65	SI2	3.97	0.82
IUH1	4.03	0.88	SI3	4.01	0.85
IUH2	4.12	0.79	SI4	4.19	0.69
IUH3	4.38	0.69	BI1	4.13	0.72
PLD1	4.47	0.59	BI2	4.33	0.69
PLD2	4.41	0.62	BI3	4.27	0.68
PLD3	4.48	0.59	FC1	4.05	0.71
PLD4	4.43	0.68	FC2	4.06	0.72
SE1	4.28	0.71			
SE2	4.29	0.67			
SE3	4.33	0.69			
SE4	4.26	0.72			

Table 2. Descriptive statistics

The average score for all items is between 3.97 and 4.62, as indicated in Table 2. Items A2 and A1 exhibit the highest scores (Mean = 4.62) and 4.52, respectively, while EE3 has the lowest score (Mean = 3.97). Based on the Merdeka thinking framework, this suggests that respondents have a favorable attitude toward the utilization of digital learning media in the context of human respiratory system education.

Users regard this learning media as highly advantageous in facilitating the learning process, as evidenced by the highest scores on items A2 and A1, which are components of the performance expectancy construct. The explanation for this outcome is the media design treatment, which incorporates interactive simulations, digital experiments, and visual illustrations that are pertinent to the respiratory system material. Venkatesh et al. (2003) have elucidated that the perception of utility is the primary determinant in the UTAUT model that influences the intention to use technology. Consequently, this design directly enhances the perception of usefulness.

In addition, these results are consistent with the research conducted by Liaw (2008) and Tao et al. (2019), which demonstrated that users' intentions and comfort levels in the context of technology-based learning are directly proportional to their perception of the utility of digital media. As a consequence, these findings are consistent with the findings of studies that underscore the primary factor driving media acceptance: usefulness.

Furthermore, the low scores and high standard deviations of items EE3 (SD = 0.95) and IUH1 (SD = 0.88) suggest that there is a disparity in the perceptions of technology routines

and ease of use. The reason for this discrepancy is likely the diverse technological capabilities and digital media experience of the users. The brief training session may not have been sufficiently comprehensive to ensure that all users perceive the process as effortless. Park and Chen (2007) conducted research that indicates the perception of effort expectancy is significantly influenced by prior user experience. These findings are consistent with the findings of that study.

The statement regarding the necessity of innovation was strongly supported by the majority of respondents, as evidenced by the significant negative skewness value of items AN2 and AN3. The media's use of innovative pedagogical approaches, including the integration of scientific thinking processes, educational games, and project-based investigation, can account for this. According to Rogers (2003), the adoption of technology will be expedited by a high level of perceived innovation, and these findings are consistent with that assertion. Similarly, the high kurtosis values in AN3 and SE4 suggest that responses were consistently very positive, which is indicative of perception stability.

In addition, this is further supported by Bandura's (1997) theory of self-efficacy, which posits that an individual's confidence in utilizing a new instrument will dictate their usage behavior. This boost in self-assurance is a result of the media's scaffolding, which includes interactive exercises, experimental demonstrations, and utilization tutorials. The results of this descriptive analysis suggest that the learning media that have been developed have the potential to improve positive perceptions of their simplicity of use, innovation, and utility. These findings are consistent with the findings of Teo (2011) and Sánchez-Prieto et al. (2019), which confirm that these variables are the primary predictors of the intention to utilize technology in the field of education.. The descriptive data thus indicates that the Merdeka thinking-based treatment has a substantial effect on the acceptance of technology by consumers.

Following a comprehension of the general overview of respondents' responses and favorable perceptions of the digital learning media based on Merdeka thinking Next, the validity and reliability of the instruments employed are verified through descriptive statistical analysis in Table 2. Consequently, it was necessary to conduct a more comprehensive analysis by evaluating the internal consistency, convergent validity, and discriminant validity of the existing constructs, as illustrated in Table 3.

Variable	Cronbach's Alpha	rho_ A	Composite Reliability	Average Variance Extracted (AVE)
Afective Need	0.861	0.867	0.906	0.707
Attitude	0.880	0.884	0.917	0.735
Behavior	0.878	0.878	0.925	0.804
Intention				
Effort	0.849	0.896	0.909	0.771
Experience				
Facilitating	0.863	0.876	0.916	0.785
ICT Usage	0.822	0.824	0.894	0.738
Habits				
Perceived	0.897	0.898	0.928	0.764
Learning				
Opportunities				

Table 3. Loading factor, validity, reliability

Performance	0.911	0.912	0.944	0.849
Expectace				
Self Efficasy	0.905	0.910	0.934	0.779
Social Influences	0.908	0.909	0.935	0.784

Table 3 demonstrates that all constructs in the research instrument satisfy the criteria for reliability and validity. Cronbach's Alpha values range from 0.822 to 0.911, Composite Reliability (CR) from 0.894 to 0.944, and Average Variance Extracted (AVE) from 0.707 to 0.849. The prescribed minimum thresholds for reliability and convergent validity are 0.70 and 0.50, respectively. All values exceed these thresholds.

The instrument's exceptional internal consistency is supported by the high Cronbach's Alpha and Composite Reliability (CR) values for all constructs. This provides an explanation for the instrument's ability to consistently measure the construct, which is substantiated by the development of indicators that are based on the synthesis of international literature and the adaptation of the globally validated UTAUT instrument (Venkatesh et al., 2003; Hair et al., 2017). For instance, the Performance Expectancy construct, which achieved the highest Cronbach's Alpha (0.911), is indicative of the respondents' strong conviction that digital media offers genuine advantages. This perception is consistent with the treatment design objectives, which involve high interactivity and experimental simulations. Gefen et al. (2000) have emphasized the significance of high reliability in structural equation modeling (SEM) to support the accuracy of latent construct measurement, and these findings are consistent with their research. Furthermore, these findings are consistent with Chao's (2019) research, which concluded that instrument stability in the context of educational technology is indicated by a CR exceeding 0.90.

The AVE values of all constructs were greater than 0.50, indicating that they can account for more than 50% of the indicator variance in

terms of convergent validity. This elucidates the manner in which the treatment bolsters the construct's clarity: the instruments were created using a robust conceptual model and contextualized with respiratory system materials, including animated videos and digital experiments. The highest AVE in Performance Expectancy (0.849) suggests that respondents are able to readily associate pertinent items within that construct. This is consistent with the research findings of Fornell and Larcker (1981), which assert that a high AVE suggests significant convergent validity. Concurrently, the Affective Need construct exhibits the lowest AVE value (0.707). The variation in respondents' perceptions of the urgency of updating learning media can account for this. Respondents who are acclimated to conventional media may not yet perceive a pressing need for innovation. Nevertheless, this value continues to exceed the threshold and is still legitimate. Henseler et al. (2015) have conducted research that underscores the fact that an instrument that has an AVE value greater than 0.70 is already highly effective in explaining the latent construct. In addition, discriminant validity is also accomplished through the Fornell-Larcker test, as the square root of the AVE of each construct exceeds the correlation between constructs. This implies that the constructs in the model can be clearly distinguised, such as Effort Expectancy and ICT Usage Habit, despite the fact that both are associated with technology usage. The distinction of this construct is also supported by the treatment that promotes learning through educational games and experimental activities, as it varies the level of engagement of respondents based on their preparedness.

These results are consistent with the research conducted by Escobar-Rodríguez & Monge-Lozano (2012), which determined that discriminant validity is essential for preventing conceptual overlap among the constructs in the technology adoption model. The accuracy of predicting relationships between variables in the structural model is also supported by discriminant validity, as evidenced by another study conducted by Raza et al. (2021). Consequently, the instrument's overall reliability and validity results suggest that it is appropriate for analyzing the relationships between constructs in the UTAUT model. This conclusion is supported by the Merdeka thinking framework. These findings establish a robust basis for additional investigation into the impact of variables such as performance expectancy, effort expectancy, and habit on the intention to use and actual usage of digital learning

media. This is also corroborated by the results of Teo et al. (2019) and Sánchez-Prieto et al. (2020), which assert that the acquisition of a robust technology acceptability model in the educational context is contingent upon the use of valid and reliable measurements. The following step is to evaluate the research instruments for discriminant validity after confirming that they meet the criteria for reliability and convergent validity, as indicated by the values of Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE) in Table 3. The Fornell-Larcker criterion is employed to conduct this test, which contrasts the square root of the AVE of each construct with its correlation with other constructs, as illustrated in Table 4.

The Fornell–Larcker criteria indicate that all constructs in the model have very good discriminant validity, as evidenced by the results

							•			
Variable	Afective Need	Attitude	Behavior Intention	Effort Experience	Facilitating	ICT Usage Habits	Perceived Learning Opportunities	Performance Expectace	Self Efficasy	Social Influences
Afective Need	0.841									
Attitude	0.828	0.857								
Behavior Intention	0.652	0.714	0.897							
Effort Experience	0.573	0.620	0.784	0.878						
Facilitating	0.566	0.624	0.752	0.719	0.886					
ICT Usage Habits	0.503	0.535	0.505	0.496	0.436	0.859				
Perceived Learning Opportunities	0.732	0.749	0.651	0.659	0.622	0.610	0.874			
Performance Expectation	0.745	0.735	0.713	0.692	0.618	0.570	0.810	0.922		
Self Efficasy	0.711	0.715	0.782	0.785	0.689	0.625	0.763	0.758	0.883	
Social Influences	0.648	0.604	0.701	0.682	0.740	0.532	0.548	0.663	0.706	0.885

Table 4. Fornell-Larcker discrimination validity

of the discriminant validity test presented in Table 4. This is demonstrated by the square root of the AVE value, which is consistently greater than the correlation values between other constructs (as indicated on the diagonal of the table). This demonstrates that each construct in the model can be clearly identified and quantifies a distinct characteristic.

For instance, the Affective Need construct has an AVE value of 0.841, which is greater than its correlation with other constructs, including Attitude (0.828) and Behavioral Intention (0.652). This suggests that the attitudes or usage intentions of participants do not correspond with their perceptions of their affective needs. The treatment that involves the use of interactive digital media explicitly designed to satisfy students' emotional needs and interests, such as visualization features, animations, and games, can explain this phenomenon. These results are consistent with the research conducted by Al-Azawei et al. (2017), which discovered that the personalization and responsiveness of digital media can influence affective experiences that are distinct from users' attitudes or behavioral intentions.

Additionally, the Attitude construct has an AVE value of 0.857, which is greater than all of its correlations with other constructs, particularly Behavioral Intention (0.714). This suggests that attitudes toward digital learning media are not solely a reflection of intentions or affective needs, but rather are independently formed. The treatment that promotes active user engagement in the direct testing of the media enables participants to cultivate specific positive attitudes toward the media's efficacy, content, and interface. These results are consistent with the UTAUT2 model by Venkatesh et al. (2012), which underscores the fact that Attitude is a selfcontained construct and makes a substantial contribution to the intention to use.

The Behavioral Intention construct, with an AVE of 0.897, is unique in its ability to elucidate respondents' intention to use this media. The AVE value is considerably higher than Self-Efficacy (0.782) and Performance Expectancy (0.713), despite the fact that they are highly correlated. This suggests that the user's intention to use the media is formed through their personal experience in evaluating its benefits and effectiveness. This can be attributed to the treatment, which involves the presentation of an interactive digital experiment that instills a sense of confidence and comfort in users during recurrent use. This is consistent with the results of Cheng (2015) and Kim et al. (2019), which underscore the fact that the intention to use is influenced by direct usage experience and confidence in the utility of learning media.

The Effort Expectancy and Facilitating Conditions constructs exhibit high AVE values (0.878 and 0.886), which surpass all of their correlations, including their own (0.719). This suggests that the perception of usage effort and external support are two distinct constructs, despite the fact that they are both related to convenience. Participants were able to differentiate between the availability of assistance or facilities and the ease of use by utilizing visual icons, basic navigation guides, and brief technical training. These results are in agreement with the findings of Alalwan et al. (2017) and Tarhini et al. (2017), which indicate that users are capable of distinguishing between perceptions of ease and perceptions of supporting resources in the adoption of technology.

The AVE of ICT Usage Habits is 0.859, which is greater than the correlation with all other constructs, including Behavioral Intention (0.505). This demonstrates that technology usage patterns are not solely influenced by temporary intentions or attitudes, but rather have a consistent cognitive and behavioral foundation. This is indicative of the efficacy of treatments that involve the reinforcement of digital interaction patterns, including the integration of commonplace ICT devices and repeated media access. Raza et al. (2021) conducted research that suggests that technology usage patterns are formed as a result of the intensity of long-term use, rather than temporary motivation. Similarly, the constructs of Perceived Learning Opportunities (AVE 0.874) and Performance Expectancy (AVE 0.922) exhibit exceptionally robust discriminant validity. This suggests that the perceptions of learning opportunities and media benefits of the participants do not intersect with each other or with other constructs. This can be ascribed to the treatment's emphasis on the active exploration of scientific concepts through digital experiments, which enables participants to regard learning opportunities as distinct from performance expectations. Research conducted by Ain et al. (2016) and Ifinedo (2017) underscores the fact that the adoption of educational technology is characterized by the perception of benefits and learning opportunities, which are two distinct constructs.

The Self-Efficacy and Social Influence constructs exhibit an AVE of 0.883 and 0.885, respectively, which is greater than the sum of all

construct correlations. This suggests that the perceptions of participants regarding their own capacity to utilize the media, as well as the social influence of peers or external parties, are distinct and independent. Providing direct access without barriers and accompanying user demonstrations by instructors or peers, the treatment encourages participants to develop independent perceptions of their abilities and social encouragement. This aligns with the research conducted by Teo et al. (2019), which underscores the critical importance of social influence and self-efficacy in the technology acceptance paradigm in the field of education.

In general, these findings suggest that the Merdeka media-based treatment can effectively distinguish all constructs in the model, reflect unique perceptions, and possess legitimate uniqueness. This high level of discriminant validity guarantees that the relationships between constructs in the structural analysis can be accurately interpreted, thereby enhancing the reliability and interpretation of the SEM model that was employed. These results are consistent with the research conducted by Hair et al. (2021) and Dwivedi et al. (2019), which underscore the significance of discriminant validity testing in educational technology-based research. Following the verification of the discriminant validity of all constructs in the research model, as illustrated in Table 4, the subsequent phase involves evaluating the strength and direction of the relationships between these constructs. Table 5 displays the relationship coefficients of the path analysis, which demonstrate the substantial influence of the variables in the model. Consequently, a more profound comprehension of the mechanisms by which psychological and environmental factors interact to promote the use of digital learning media by teachers is facilitated.

Path	Coefficient	T-statistics	P-Value
Affective Need→ Perceived Learning Opportunities	0.559	4.752	0.000
Attitude \rightarrow Behavioural Intention	0.429	6.255	0.000
Behavioural Intention \rightarrow Self Efficacy	0.374	3.073	0.002
Performance Expectation \rightarrow Behavioural Intention	0.473	6.286	0.000
Performance Expectation \rightarrow Self Efficacy	0.353	3.943	0.000
Facilitating \rightarrow Perceived Learning Opportunities	0.306	3.202	0.001
Perceived Learning Opportunities \rightarrow ICT Usage Habits	0.318	2.265	0.024
Self Efficacy \rightarrow ICT Usage Habits	0.382	2.750	0.006
Social Influences \rightarrow Self Efficacy	0.216	2.032	0.043

Table 5. Coefficients of each path

The path analysis results in Table 5 demonstrate that the perception of learning opportunities is significantly positively influenced by affective Needs ($\hat{a} = 0.559$; T = 4.752; p < 0.001). This influence is the result of the digital learning media that has been developed, which incorporates a personalized content approach and an affectively engaging interface design to address the emotional requirements of teachers. This treatment enables teachers to experience a greater sense of motivation and appreciation, which in turn motivates them to be more receptive

to opportunities for competency development. These findings are consistent with the Self-Determination Theory by Deci & Ryan (2000), which underscores the significance of satisfying affective neeeds in order to promote learning engagement. Chen et al. (2019) also conducted research that indicates that the satisfaction of emotional requirements fosters a favorable perception of digital learning opportunities.

Behavioral intentions are significantly influenced by attitudes toward digital media (\hat{a} = 0.429; T = 6.255; p < 0.001). This effect

demonstrates that educators who regard media as both beneficial and pleasurable are more likely to intend to employ it. A positive attitude is fostered by the direct experience with the media and the ease of investigating its features. These results substantiate the UTAUT model (Venkatesh et al., 2003) and the research conducted by Liaw et al. (2007), which underscores the significance of attitude in the intention to implement learning technology. In addition, self-efficacy is influenced by behavioral intention ($\hat{a} = 0.374$; T = 3.073; p = 0.002). These findings suggest that instructors experience increased confidence and mental preparedness when they have a strong intention to utilize media. The development of a more robust perception of self-control is facilitated by the treatment in the form of structured interactions within the media and practical features. This is in accordance with the concept of self-efficacy as defined by Bandura (1997) and the research conducted by Lin and Wang (2012), which demonstrates that the intention to utilize technology is a mediator in the development of user self-efficacy.

Two constructs, namely behavioral intention $(\hat{a} = 0,473; T = 6,286; p < 0,001)$ and selfefficacy ($\hat{a} = 0.353$; T = 3.943; p < 0.001), are significantly influenced by effort expectancy simultaneous. Teachers who find the media userfriendly are more likely to feel confident and intend to use it. This effect is explicated by the treatment, which comprises an intuitive interface design and minimal technical obstacles. These findings are in accordance with the research conducted by Venkatesh et al. (2003) and Teo (2011), which demonstrated that self-efficacy and intention are enhanced by simplicity of use in the context of ICT use in education. The perception of learning opportunities is positively impacted by facilitation ($\hat{a} = 0.306$; T = 3.202; p = 0.001), suggesting that teachers' perceptions of learning possibilities are influenced by resource access, technical support, and training. The treatment that includes clear media usage instructions and

technical assistance significantly improves the preparedness of instructors. These findings corroborate the research conducted by Alalwan et al. (2017), which demonstrates the significance of facilitative conditions in fostering teacher engagement in technology-based learning.

The propensity of using ICT is influenced by the perception of learning opportunities ($\hat{a} =$ 0.318; T = 2.265; p = 0.024). This suggests that the consistent use of technology is influenced by the perception of the advantages of learning through media. The media is a frequently employed learning instrument as a result of the integration of materials that are pertinent to the professional requirements of teachers. These results are consistent with the research conducted by Dwivedi et al. (2019), which asserts that the perception of learning opportunities fosters positive behaviors in the utilization of educational technology. The propensity of using ICT is also influenced by self-efficacy ($\hat{a} = 0.382$; T = 2.750; p = 0.006), suggesting that the consistent use of digital media is rooted in a belief in personal ability. The development of robust self-assurance is facilitated by the provision of positive feedback from the media and flexible navigation. Selfefficacy is the primary predictor of technologybased self-directed learning behavior, as per Bandura's theory (1997).

Lastly, self-efficacy is influenced by social influence ($\hat{a} = 0.216$; T = 2.032; p = 0.043). Validation and encouragement are provided by professional associates, the school environment, and peers to teachers, enabling them to feel confident in their ability to make use of technology. The development of self-efficacy through social interaction is facilitated by the treatment in the form of media trials that involve the teacher community and group discussions. These results are in accordance with social cognitive theory (Bandura, 1986), which underscores the significance of social support in the development of technological confidence. Ultimately, these findings illustrate the intricate interplay between psychological and environmental factors that influences the adoption of digital learning media by educators. In accordance with the recommendations of prior research (Venkatesh et al., 2012; Teo, 2011), interventions that emphasize the improvement of affective motivation, positive attitudes, ease of use, facility support, and reinforcement of the social environment are expected to significantly increase the use of digital media in education.

	Tabel 6. Direct effect						
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values		
Affective Need ->	0.178	0.167	0.069	2.587	0.010		
Perceived Learning							
Opportunities -> ICT							
Usage Habits							
Facilitating -> Perceived	0.097	0.100	0.063	1.538	0.125		
Learning Opportunities ->							
ICT							
Usage Habits							
Attitude -> Behavior	0.061	0.066	0.040	1.535	0.126		
Intention -> Self Efficasy ->	>						
ICT Usage							
Habits							
Behavior Intention -> Self	0.143	0.149	0.081	1.761	0.079		
Efficasy -> ICT Usage							
Habits							
Effort Expectance ->	0.068	0.069	0.039	1.746	0.081		
Behavior Intention -> Self							
Efficasy ->							
ICT Usage Habits							
Effort Expectance -> Self	0.135	0.136	0.055	2.476	0.014		
Efficasy -> ICT Usage							
Habits							
Social Influences -> Self	0.083	0.086	0.052	1.579	0.115		
Efficasy -> ICT Usage							
Habits							
Attitude -> Behavior	0.160	0.161	0.065	2.464	0.014		
Intention -> Self Efficasy							
Effort Expectance ->	0.177	0.172	0.062	2.860	0.004		
Behavior Intention -> Self							
Efficasy							

The results of the direct effect path analysis in Table 6 indicate that the path from affective needs to ICT utilization habits is both positive and significant (coefficient = 0.178; p = 0.010). This suggests that educators who possess strong internal motivation and emotional requirements are more adept at identifying and actively utilizing digital learning opportunities. This discovery supports the self-determination theory (Deci & Ryan, 2000), which posits that affective needs are the primary motivators of engagement in digital learning. Chen et al. (2019) also reported comparable findings, emphasizing the significance of emotional factors in the promotion of the adoption of educational technology. In other words, educators are less inclined to incorporate technology into the learning process when they lack a strong affective motivation.

Conversely, the pathway from facilitation to ICT utilization habits does not exhibit a significant influence (p = 0.125) through the perception of learning opportunities. This raises concerns regarding the efficacy of the facilities, including infrastructure and training, in improving teachers' perceptions of learning opportunities. Support from facilities alone is likely insufficient in the absence of optimal utilization or adequate training. In order to effectively influence behavior, external conditions must be accompanied by internal factors. In order for the facilities to have a positive effect, it is necessary to integrate teacher motivation with training and technical support, as emphasized in another study by Teo (2011).

The results were not statistically significant in the pathway that involved attitudes, behavioral intentions, and self-efficacy in relation to ICT usage patterns (p between 0.079-0.126). This suggests that the positive attitude and good intentions of educators toward the use of technology have not yet been entirely translated into actual habits. The primary obstacles may be contextual factors, including technical barriers, time constraints, and burden. This is in accordance with the results of Venkatesh et al. (2003), who assert that external constraints may prevent behavioral intentions from resulting in actions. Additionally, Liaw et al. (2007) conducted research that indicated that the adoption of technology is contingent upon the implementation context and organizational support. Interestingly, the path from effort expectancy to ICT utilization habits is significantly influenced by self-efficacy (coefficient = 0.135; p = 0.014). This suggests that teachers' selfassurance is bolstered by their perception of the technology's user-friendliness, which in turn promotes the use of ICT. These results are in accordance with Bandura's (1997) theory, which posits that self-efficacy is the primary mediator in the technology adoption process, and Venkatesh et al.'s (2003) study, which posits that convenience of use is the primary factor in

technology acceptance. Consequently, the establishment of consistent usage practices is contingent upon the facilitation of access and utilization of digital media.

In contrast, the impact of social influences on ICT usage patterns through self-efficacy is not statistically significant (p=0.115). This suggests that teachers' practices in the use of ICT are not yet sufficiently influenced by social support, such as that provided by colleagues or superiors. It is possible that the perceived measure of social support is still low or less relevant in the context of elementary schools, where individual factors and facilities are more prevalent.

The significance of social influence is indeed underscored by the research conducted by Compeau and Higgins (1995) and Bandura's social cognitive theory (1986). However, in order to guarantee effective social support, the local context and school culture must be taken into account. This model accounts for 57.9% of the variation in the intention and habit of using digital learning media ($R^2 = 0.579$), which is considered a fairly strong prediction according to the standards of Isaias et al. (2017). Nevertheless, in order to enhance the efficacy of ICT usage, it is necessary to prioritize continuous training, infrastructure improvement, and supportive policies that can incorporate motivation, attitude, and teacher self-efficacy. This will enable positive intentions to be translated into tangible habits in the field. Subsequently, Table 7 displays the coefficient of determination values (R-square and Adjusted R-square) that demonstrate the degree to which the independent constructs can account for the variability of the primary dependent variables in the research model. This data complements the direct path analysis results in Table 6 by offering a comprehensive understanding of the model's predictive power. Additionally, it assesses the efficacy of the independent variables in elucidating the habits of using information and communication technology by teachers, as well as behavioral intentions, selfefficacy, and perceived learning opportunities.

	R Square	Adjusted R Square
Behavior	0.723	0.713
Intention		
ICT Usage Habits	0.433	0.417
Perceived	0.599	0.592
Learning		
Opportunities		
Self Efficasy	0.671	0.665

 Table 7. Result r-square

Table 7 presents the R-square and Adjusted R-square values, which indicate the level of variation in the dependent variable that can be explained by the independent constructs in the structural model. These values offer a comprehensive assessment of the model's ability to forecast each of the primary variables. The constructs of Attitude, Self-Efficacy, and Perceived Learning Opportunities can account for approximately 72.3% of the variance in instructors' intention to use digital microlearning media, as indicated by the highest R-square value of 0.723 for the Behavioral Intention variable. These results suggest that the affective and cognitive characteristics of educators play a substantial role in determining the intention to utilize learning technology. This is in accordance with the UTAUT model (Venkatesh et al., 2003), which identifies performance expectancy, effort expectancy, and social influence as the primary predictors of behavioral intention. In the context of elementary school teachers, attitude appears to be more prevalent, which is likely due to the level of autonomy teachers have in selecting teaching methods and their direct experience with the benefits of technology. This conclusion is corroborated by Teo's (2011) research, which underscores the significant influence of a positive attitude toward technology on the intention to utilize it, particularly in occupations that emphasize direct interaction, such as elementary school instructors.

The constructs of Effort Expectancy and Social Influence account for over 67% of the

variability in teachers' self-efficacy in utilizing technology, as evidenced by the R-square of 0.671 for the Self-Efficacy variable. This supports Bandura's social-cognitive theory (1997), which posits that the confidence to employ technology is significantly influenced by personal experience, social support, and perceived ease of use. Teachers who are supported by their colleagues and find microlearning media user-friendly are more likely to be confident in their use of it. Chen et al. (2019) also discovered that self-efficacy is substantially improved by training that is centered on realworld practices and learning contexts. Consequently, the improvement of instructors' self-efficacy in learning technology is contingent upon the enhancement of contextual training.

The variable Perceived Learning Opportunities has an R-square of 0.599, indicating that Affective Need and Facilitating Conditions account for nearly 60% of the variation in teachers' perceptions of the potential of digital media. These findings suggest that the evaluation of the advantages of learning media is significantly influenced by affective needs, including emotional comfort, motivation, and teacher enthusiasm. Furthermore, this favorable impression is further bolstered by the accessibility of technical assistance. This is consistent with the concept of flow, as defined by Csikszentmihalyi (1990), in which users experience motivation and focus when the learning challenges are appropriate for their capabilities and there is a sense of autonomy. This discovery is corroborated by prior research conducted by Liaw et al. (2007), which demonstrated that the perception of learning opportunities is improved by positive experiences with technology. Nevertheless, the R-square value for the ICT Usage Habits variable is relatively lower, at 0.433. This suggests that the model can account for only 43.3% of the variation in ICT usage patterns by teachers, leaving 56.7% of the variation unaccounted for. These factors may encompass the school work culture, administrative pressure, leadership support, technology usage incentives, and past experiences that influence teachers' perceptions of ICT. In contrast to research conducted at the secondary or higher education level (e.g., Ifinedo, 2017), elementary school instructors are more susceptible to affective and personal factors than to formal institutional pressures. Consequently, the development of digital habits among elementary school instructors necessitates more personalized and contextual strategies, such as a school culture that encourages technological innovation and pertinent policy support.



The data analysis results for the first hypothesis suggest that Behavioral Intention (BI) is positively and significantly influenced by Performance Expectancy (PE) when digital websites are employed for differentiated multimodal learning media. The regression coefficient of 0.437 (Table 7) further substantiates the notion that elementary school teachers' perception of the advantages of digital media in improving their teaching performance is a significant factor in their decision to continue utilizing it. This is consistent with the demographic data, which indicates that the majority of respondents are young female teachers aged 21– 30 who possess a bachelor's degree. These individuals are recognized for their greater readiness to embrace technology when it is justified by its performance benefits (Venkatesh et al., 2003; Kim & Lee, 2020).

The positive impact of PE on BI can be attributed to the context of media innovation, teacher characteristics, and theoretical support from a variety of pertinent studies. The high scores on the PE elements in the questionnaire indicate that teachers believe that this website media enhances the quality and efficiency of learning by improving teaching quality, productivity, and the delivery of SD materials. This is consistent with the conclusions of Shukla (2021) and Dwivedi et al. (2019), which assert that teachers will be incentivized to implement technology if they perceive its advantages in attaining their operational objectives. Teachers believe that this media assists in meeting the requirements of the Merdeka Curriculum because it is intended to facilitate differentiated learning, the integration of scientific thinking processes, and multimodality. Lai and Chen (2020) conducted research that demonstrates a substantial increase in physical activity when technological features are in accordance with the instructional requirements of educators. Additionally, Im et al. (2011) and Park & Park (2021) have elucidated that respondents who are predominantly of a younger age and have completed higher education are more likely to exhibit sensitivity to technology that is perceived to improve performance. They are more inclined to perceive the utilization of websites as a tool for achieving academic success, rather than merely an innovation. PE also increases as a result of the flexibility that this website media offers in terms of material delivery, time, and students' learning styles. Balkaya and Akkucuk (2021) substantiate this assertion, asserting that educational technology that introduces novel teaching opportunities improves the perception of efficacy and relevance (task relevance and learning opportunities). Additionally, this is consistent with the IUH indicators, which indicate that the majority of educators have become habituated to or have previously studied digital learning media during their college years, thereby enhancing their positive perception of physical education. Jung et al. (2021) and Kim & Lee (2020) discovered that the evaluation of the extent to which technology can support work outcomes is influenced by past experiences. Teachers are also aware that this media not only captivates students' attention but also directly aids in their comprehension of the material. This supports Performance Expectancy, as articulated by Almaiah et al. (2022), who underscore the

significance of the genuine functions of technology in attaining learning outcomes.

In the context of basic education in Indonesia, educators are obligated to develop differentiated and meaningful learning experiences in addition to delivering content. The PE toward the media increases when the media used can meet that challenge (Dwivedi et al., 2019). Other research, including that conducted by Balkaya and Akkucuk (2021), demonstrates that PE can mutually reinforce perceived learning opportunity and self-efficacy. In this investigation, the media is not only regarded as beneficial, but it is also capable of fostering instructors' self-assurance and offering novel pedagogical exploration opportunities. Teachers are of the opinion that this website not only enhances their professional development but also enhances the learning outcomes of students, particularly in the area of the human respiratory system. Jung et al. (2021) demonstrated that physical activity levels increase when technology has a direct effect on students' comprehension and motivation to learn. The website was created in accordance with the learning requirements of Indonesian elementary schools, which encompassed student characteristics, language, and materials. The perception of technology's utility (PE) will be enhanced when it is designed to be locally relevant and contextual, as per Lai & Chen (2020).

The primary determinant of elementary school instructors' intention to use digital learning media, as per the Merdeka thinking framework, is Performance Expectancy, as indicated by the test results. If teachers are convinced that the technology genuinely improves the effectiveness, efficiency, and meaningfulness of learning, they are more likely to implement it. Consequently, in order to ensure that digital learning media are wellreceived by educators, it is imperative that the development of these tools prioritize genuine pedagogical and functional values.

The results of the second hypothesis test indicate that Effort Expectancy (EE) has a substantial positive impact on Behavioral Intention (BI). This implies that the more instructors perceive the user-friendliness of the digital website differentiable learning media multimodality, the more likely they are to incorporate it into their teaching. According to the Demographic Table, the majority of the participants were female instructors (91%) between the ages of 21 and 30 (87%) and held bachelor's degrees (98%). This profile delineates a group of youthful educators who are relatively more receptive to the advancement of educational technology and innovation.

The majority of teachers find the use of digital media to be effortless, as evidenced by the high average score for Effort Expectancy in Table 7. The responses to the questionnaire instruments, such as "It is easy for me to teach using the digital website...", "I find that the digital website... is easy to use," and "... does not require much preparation," also reflect this. Consequently, the instructors' intention to incorporate it into their classroom instruction is significantly influenced by their strong perception of its user-friendliness.

There are numerous reasons for the positive and substantial impact of Effort Expectancy on Behavioral Intention in this study. Initially, the perception of ease is significantly influenced by the characteristics of the participants, who are primarily youthful and possess a higher education. Young teachers are more adept at adapting to new interfaces and have more experience with technology, which is why they do not perceive the use of this media as a hindrance. According to Park & Park (2021) and Kim & Lee (2020), young users are more inclined to view the simplicity of utilizing technology favorably and regard it as a motivator for their intention to use it.

Secondly, the digital media in this study have been developed in accordance with the requirements of the field, including visual instructions, direct features to learning activities, and uncomplicated navigation. Dwivedi et al. (2019) underscore that a user-friendly interface increases intention, particularly in the educational context, which is supported by the item "using the digital website does not require much preparation." Consequently, teachers do not feel encumbered when preparing and conducting lessons. Third, these results also demonstrate that the teachers have previous experience with comparable technology, as evidenced by the ICT Usage Habits variable, both during their academic pursuits and while instructing. The theory of Shukla (2021) and Raza et al. (2021) that technological experience reinforces the relationship between EE and BI is supported by this readiness, which strengthens EE and instills greater confidence in instructors. Fourth, teachers do not perceive themselves as isolated in their utilization of new media in an educational environment that prioritizes technology utilization, as evidenced by the indicators of Social Influence and Facilitating Conditions. This also mitigates the mental obstacles that typically arise when technology is perceived as "difficult," as noted by Wang et al. (2021) and Zhou et al. (2023). Fifth, teachers perceive this digital media as not only straightforward but also pertinent and indispensable within the Merdeka Curriculum, which prioritizes innovation. Therefore, the term "ease" encompasses not only a technical definition but also the ease with which one can accomplish their work objectives. This confirms the hypothesis of Im et al. (2011) that EE can be enhanced when technology is perceived as congruent with the professional obligations of users.

Teachers' intentions to incorporate technology into their instruction are significantly influenced by their perception of the simplicity of utilizing digital media. This is the result of a combination of primary factors, such as the intuitive and low-preparation media design and the characteristics of instructors that are dominated by a younger generation that is adaptable to technology. College and teaching practice experience with digital media. Support from institutional and social environments. In addition to the congruence of media with the Merdeka Curriculum's requirements, which prioritize technology, differentiation, and flexibility in the learning process. Consequently, these findings confirm that Effort Expectancy is not solely concerned with technical ease; it also reflects the ease of accommodating the professional requirements of educators in a given context. The strategic design of the ease aspect is essential in the development of digital media for primary education, as it ensures the sustainability of technology integration in the learning practices of elementary school instructors and enhances usage intention.

The third hypothesis was tested, and the results indicate that Social Influence (SI) has a substantial positive impact on Behavioral Intention (BI). Specifically, the more support and social encouragement teachers receive from peers, institutions, or professional environments, the more likely they are to use the digital website for differentiated multimodal learning media in the learning process. It is evident from the Demographic Table that the majority of the participants in this study are female (91%), aged 21-30 years (87%), and possess a bachelor's degree (98%). This profile indicates that the majority of participants are young instructors who are in the early or mid-career phase. Venkatesh et al. (2003) have observed that young teachers are more susceptible to the influence of professional support and social norms when it comes to determining their attitudes and decisions regarding technology use.

Additionally, Table 7 demonstrates that Social Influence has a high average score (mean = 4.16) with a standard deviation of 0.57, suggesting that the perception of social support from the work environment and institutions is extremely robust. Demonstrating that the use of that technology is explicitly encouraged by the normative and structural support of the individuals in the vicinity of the participants. In the context of educational changes through the Merdeka Curriculum, teachers who experience support from their professional community will be more motivated and confident in their attempts to try new things.

Teachers' intentions are substantially determined by professional norms and school culture. Teachers will be motivated to adjust in order to remain professionally relevant when technology is regarded as the "new norm" in the educational environment (Dwivedi et al., 2019; Shukla, 2021). In an effort to expedite the digital transformation of education, numerous schools are beginning to promote the integration of innovative digital media, including media that is based on the Merdeka framework, within the context of the Merdeka Curriculum. Teachers in schools that have a robust digitalization vision are more likely to develop usage intentions that are informed by that guidance and support. Furthermore, Maranguniæ & Graniæ (2015) and Balkaya & Akkucuk (2021) have demonstrated that Social Influence has a more significant impact on the early phases of technology adoption, particularly when teachers are not yet highly proficient in technology. Support from others can act as a "pathway" to increase confidence and interest in exploration. The perception that the use of digital media is socially and professionally expected is subsequently influenced by the level of trust in educational institutions (facilitators, peers, school principals) (Wang et al., 2020; Nikou & Economides, 2017). In conclusion, the substantial correlation between social influence and behavioral intention in this study suggests that social support is a critical factor in motivating educators to utilize digital media. Personal or technical factors are not the only factors that initiate the intention to use; perceptions of what is expected in the professional environment also play a role. These results also confirm previous findings that the majority of participants are young female instructors, who tend to form intentions based on the views of others, particularly in the context of updating teaching practices. Consequently, in order to enhance the adoption of technology in primary education, it is imperative to establish a school culture that fosters innovation, strong peer modeling, and institutional policies that promote digital transformation.

The fourth hypothesis's research findings suggest that Facilitating Conditions (FC) have a substantial positive impact on the Behavioral Intention (BI) of instructors to utilize digital websites for differentiated multimodal learning media. In other words, the intention of instructors to utilize digital media is significantly influenced by the availability of technical support, resources, and training. Based on the demographic data, the majority of the respondents are young female instructors (21-30 years old) with a Bachelor's degree. This condition suggests that they are still in the early stages of their careers and require substantial support from their environment to implement new learning technologies. Table 7's data, which displays a high average score on the Facilitating Conditions indicator (4.18), further supports the notion that teachers perceive ample support in the form of technical assistance, equipment, or training.

The questionnaire instrument includes questions that characterize Facilitating Conditions, such as the availability of equipment, assistance from teachers or other teams, and special training in the use of digital media. Teachers perceive their learning environments as adequately conducive to innovation in the classroom, as evidenced by their favorable responses to these inquiries. This condition is crucial because the literature indicates that teachers, particularly those who are young and relatively new to the teaching profession, heavily depend on the availability of facilities and support to effectively integrate technology into their lesson plans (Venkatesh et al., 2003; Maranguniæ & Graniæ, 2015).

Additionally, the significance of Facilitating Conditions in enhancing the intention to utilize

technology is underscored by numerous international studies. System support is the primary factor driving adoption when technology is still novel to users, according to research conducted by Wang et al. (2020) and Shukla (2021). Teachers are significantly assisted in surmounting both psychological and technical obstacles when employing digital learning media through structured training, device access, and technical support from the school environment (Nikou & Economides, 2017; Kim & Lee, 2020). The provision of sufficient training and digital learning resources has emerged as a critical factor in facilitating the innovation of educators in the context of the Merdeka Curriculum, which is currently being implemented in numerous schools (Dwivedi et al., 2019). In addition, the research conducted by Park & Park (2021) demonstrates that the intention to utilize technology is significantly predicted by external support, including technical assistance and learning facilities, particularly for novice users, such as the young teachers in this study. Teachers are more confident and motivated to continue incorporating technology into their instructional activities when they have a sufficient support system. Consequently, the findings of this investigation underscore the necessity of a comprehensive support ecosystem, which encompasses ongoing technical assistance, equipment, and training, in order to expedite the digital transformation of primary education instead of relying solely on teacher motivation. In particular, the substantial positive impact of Facilitating Conditions on Behavioral Intention in this study underscores the importance of infrastructure readiness and system support in order to increase instructors' intention to utilize digital media in accordance with the Merdeka flow. This is particularly pertinent in light of the fact that the majority of educators in the sample are members of the younger generation, who require support in order to effectively adjust to new technology. Consequently, educational institutions and policymakers must prioritize the provision of comprehensive training, complete equipment, and technical support teams to ensure that instructors are motivated and feel supported in their efforts to implement digital learning innovations.

The results of the fifth hypothesis test indicate that the Behavioral Intention (BI) of instructors in the use of digital websites for differentiated multimodal learning media is significantly positively influenced by Social Influences (SI). In other words, teachers' intentions to incorporate digital media into the learning process are significantly influenced by social pressure and the encouragement they receive from their surroundings. The demographic data indicating that the majority of participants are female teachers aged 21-30 with Bachelor's degrees supports the notion that these young teachers are more susceptible to social influences, such as recommendations and support from colleagues and the school environment.

Table 7 displays high scores on the Social Influences indicator (average 4.09), suggesting that instructors receive social support from their colleagues, school leaders, and family members when employing digital media. The questionnaire instrument that assesses SI emphasizes the influence of the school's norms and culture, the practices of other instructors, and the opinions of close acquaintances on the intention to use media. This is in accordance with prior research findings that demonstrate the significant role of social influences in the adoption of technology by teachers, particularly when they encounter new technology that has not yet been fully mastered (Venkatesh et al., 2003; Im et al., 2011). These findings are corroborated by international literature. Research conducted by Dwivedi et al. (2019) and Wang et al. (2020) underscores the fact that educators who experience encouragement and support from their social environment are more inclined to employ digital learning technology in a sustainable manner. Furthermore, Kim & Lee (2020) and

Park & Park (2021) have conducted research that demonstrates that instructors' decisions to implement technological innovations are significantly influenced by social norms and expectations from reference groups. Social support not only improves teachers' intentions but also mitigates anxiety and resistance to change in the context of the Merdeka Curriculum and the growing demand for interactive learning (Shukla, 2021; Nikou & Economides, 2017).

In this study, young female instructors are more likely to rely on recommendations and examples from other educators who have already implemented digital media. They are also motivated by moral support and school policies. This is consistent with social cognitive theory, which posits that role models and social norms significantly influence the development of novel behaviors (Bandura, 1986). Consequently, it is crucial to establish a school culture that fosters technological innovation and a supportive learning community in order to increase the adoption of digital media among elementary school instructors. Consequently, the findings of this investigation underscore the necessity of incorporating social components into interventions to improve the utilization of digital learning media. These components include the establishment of working groups, the participation of senior instructors as role models, and policy support that reinforces the standards of technology usage. This method will enhance the behavioral intention of instructors and expedite the digital transformation of the primary education environment.

CONCLUSION

This study underscores the significant influence of social influence, expectations of ease of use (effort expectancy), affective needs, and attitudes on the intentions and habits of primary education teachers in the use of ICT. These results enhance theoretical comprehension by expanding the UTAUT model by incorporating flow theory, which demonstrates that instructors' emotional readiness and perception of learning opportunities also contribute to the adoption of digital media. Several practical implications are derived from these findings. Initially, teacher professional development programs should prioritize teachers' affective needs, including selfconfidence and technology comfort, in addition to technical aspects. Mentoring programs, reflective discussion forums, and hands-on training can facilitate this. among instructors.

Secondly, it is imperative that ICT training be designed to mitigate the perception of difficulty in use. This can be achieved by incorporating devices and applications that are both readily accessible and appropriate for classroom learning. In order for the utilization of ICT to become a recurring habit, it is also imperative that schools provide consistent technical support. Third, it is recommended that policymakers incorporate digital literacy as a critical component of the teacher education curriculum, both in preservice education and in continuous training. This will underscore the potential of technology to improve pedagogical practices, rather than merely serving as an administrative instrument.

This research makes a theoretical contribution by analyzing the UTAUT model in the context of primary education in Indonesia. Additionally, it emphasizes the significance of the flow dimension in elucidating the behavior of teachers in adopting technology. Additional research can explore the extent to which teachers' ICT usage patterns are influenced by school leadership, curriculum, or local cultural values.

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