

## Exploration Of Teachers' Understanding Of Innovational Learning In The Digital Era

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### Abstract:

This study explores teachers' understanding of innovative learning in the digital era through a systematic literature review (SLR). This study collects and analyzes various scientific sources to understand how teachers internalize and implement innovative learning using digital Technology. The purpose of this study is to investigate educators' understanding of creative learning in the digital era, including their perceptions and attitudes, as well as the challenges they face in implementing this strategy. The primary focus is on teachers' understanding of their role as learning facilitators who can integrate digital media and develop creative and interactive learning methods. This study emphasizes the importance of improving teachers' digital competence as a key factor in making learning more meaningful and relevant for students in the digital era.

**Keywords:** Teacher Understanding, Innovative Learning, Digital Era, Teacher Digital Competence, Technology Integration.

### Abstrak:

Penelitian ini melakukan eksplorasi pemahaman guru terhadap pembelajaran inovasi di era digital menggunakan metode *studi literature review* (SLR). Kajian ini mengumpulkan dan menganalisis berbagai sumber ilmiah untuk memahami bagaimana guru menghayati dan mengimplementasikan pembelajaran inovatif dengan memanfaatkan teknologi digital. Tujuan dari penelitian ini adalah untuk menyelidiki pemahaman pendidik tentang pembelajaran inovatif di era digital, mencakup persepsi, sikap, dan tantangan yang mereka hadapi dalam melaksanakan strategi ini. Fokus utamanya pada pemahaman guru mengenai peran mereka sebagai fasilitator pembelajaran yang dapat mengintegrasikan media digital dan mengembangkan metode pembelajaran yang kreatif serta interaktif. Studi ini menegaskan pentingnya peningkatan kompetensi digital guru sebagai faktor kunci dalam menjadikan pembelajaran lebih bermakna dan relevan bagi peserta didik di era digital.

**Kata Kunci:** Pemahaman Guru, Pembelajaran Inovatif, Era Digital, Kompetensi Digital Guru, Integrasi Teknologi.

## 1. INTRODUCTION

The development of education is changing the education system. Learning is traditionally conventional and is being transformed, but is increasingly becoming technology-based. Teachers, as the spearhead of the learning process, face demands to master and implement innovative digital learning to be relevant to the needs of participants in modern education.

However, not all teachers have a common understanding of how to teach innovatively in the digital age. The gap in digital knowledge and skills among teachers becomes a challenge to realize effective and engaging learning. Therefore, it's essential to explore how this digital Technology is transforming teachers' understanding of learning.

Teachers' understanding of learning innovation in the digital era is crucial because it directly impacts the quality of learning and outcomes. Participants are educated. Teachers who understand and can integrate digital Technology into learning can create an atmosphere of interactive, creative, and meaningful learning. This theme becomes very relevant in the context of education in the present and future, which is increasingly digital and dynamic.

This article aims to explore teachers' understanding of draft learning innovations in the digital era based on the literature. This article aims to provide a theoretical and practical description of how teachers understand, apply, and develop innovation in learning enabled by digital Technology.

Furthermore, the discussion will present the study's results and related literature on teacher understanding in the context of digital innovation, with emphasis on digital competence, teachers' role as facilitators of learning, and innovation strategies applicable in the classroom. This study is expected to serve as a basis for developing teacher competence and improving the quality of education in the digital era.

## 2. METHODS

This study uses a systematic literature review (SLR), a structured Research strategy that is careful and highly effective, rooted in a comprehensive analysis of the literature. The travel study began with proper identification and selection of articles, citations, and scientific sources related to the topic. Research sourced from various leading databases, including Google Scholar and journals indexed in academic databases, with compliance with specific time limitations for publication to ensure the relevance and completeness of the data. Each selected source was then assessed using

strict inclusion and exclusion criteria to ensure objectivity and reliability, thereby maximizing the collected data. In addition, essential data from studies that meet the requirements are analyzed and synthesized, with careful, comprehensive, nuanced, and cohesive descriptions of the findings from previous studies. Powerful method. This empowers researchers to build a solid framework and to reveal the theory gap in Research, opening the way for further progress in development studies.

### **3. FINDINGS AND DISCUSSION**

#### **3.1.Teachers' Understanding of Draft Learning Innovation In the Digital Age**

An educator is an essential element of the educational framework; thus, for the progress of education, a skilled, highly innovative educator must be present from time to time. In the contemporary digital era, the role of educators goes beyond teaching, encompassing the facilitation and involvement of students with various educational media, particularly the use of Technology to demonstrate effectiveness in enhancing learning. Therefore, educators need higher technological skills than students in this digital era. Educators not only help students but also motivate and inspire, using various platforms to increase collaboration among students, exemplified by Zoom meetings, Google Classroom, PowerPoint, and similar tools. In addition, educators do not havehave enough answers for fostering digital literacy, enabling students to utilise Technology wisely. As for what can be carried out by teachers as a learning strategy in the digital era, these include:

##### **a. Digital Learning Model**

Learning models in the digital era can be classified into three reforms. *First*, the teacher delivers the material online, which participants then download and study offline. *Second*, the teacher provides material online, while the activity is done offline. *Third*, the teacher integrates online and offline learning methods collaboratively. In addition to these three models, there are several approaches to digital learning, including *blended learning*, *distance learning*, *mobile learning*, and *virtual learning environments*, each of which adapts to the needs and characteristics of the participants being educated.

##### **b. Innovation Digital Learning**

Education must respond to demands and developments over time and understand the characteristics of the thirsty native generation through innovative learning. One innovation in modern education that can be

implemented using tools such as WhatsApp, Google Forms, TeamViewer, Remote Utilities, Aero Admin, and Google Drive. An example of an innovative learning approach that can be implemented is gamification (game-based learning). Learning includes innovative elements that allow students to play an active, motivated role. The output student can increase their potential, be motivated, and have fun learning with load points, prizes, and challenges in the material. Teachers must also enforce restricted times so that students avoid the negative impacts that are not desired.

c. Digital Era Learning Design

To remain relevant as a medium for knowledge transfer, teachers must design learning with an engaging, practical approach. There are five approaches main thing that can made into runway in developing learning, namely : (1) supporting the learning process participant educate in a way active and independent, (2) provide room for development potential individual, (3) instill values character, (4) ensure achievement literacy technology among students, and (5) realizing the role of teachers as professional, adaptive, and effective educators (Izmala dkk., 2025, hlm. 296–297).

**3.2. Factors That Influence Teachers' Level of Understanding of Learning Innovations in the Digital Age**

- a. Access to Technology. Teachers who have access to easy-to-use device technology and the internet tend to be better able to explore their digital skills than to use conventional learning methods. Also, teachers will use more advanced teaching technology.
- b. Continuous training and education. Provision of relevant skills is needed to develop a revolutionary learning method and keep pace with technological development. In this regard, support from the government and educational institutions is essential, as development-oriented education plays a crucial role in the education sector.
- c. The curriculum is designed to be adaptive and to follow educators as they adjust methods to the learning needs and dynamics of participants in the digital era. Through a responsive curriculum to the developing technological development, teachers can implement an approach that is more learning-relevant, contextual, and effective in accordance with the demands of 21st-century learning.
- d. Motivation to keep going, learning. As a teacher, one should have a high level of knowledge to keep going, learn, and grow amid the disruptions of

the times. Spirit science. This will assist teachers in facing challenges in the digital era (Ulfa Fatimah dkk., 2024, hlm. 113).

e. Skills, Technology, and teacher literacy. In the digital era, teachers are required to have two abilities: technological skills and digital knowledge. Teachers' ability to use Technology, such as computers, laptops, smartphones, and online learning platforms, enables a more effective, interactive, and engaging learning process for students. While digital knowledge is used to utilise Technology wisely, it allows understanding, analysis, and critical evaluation of digital content.

### **3.3. Implementation of Learning Innovation by Teachers in Utilizing Digital Technology in the Classroom**

Some types of learning innovations can be applied by teachers in the digital era:

1. *E-Learning (Electronic Learning)* refers to the use of the internet and digital platforms to deliver educational materials. This includes online courses, webinars, and virtual classes.
2. A mobile learning application provides easy access to educational materials on mobile devices so that students can study anywhere, anytime.
3. Social media is used as a medium for collaboration and interaction between students and teachers. Also used for sharing source power and matter learning.
4. Online learning platforms, such as Moodle, Google Classroom, and Edmodo, offer space for collaborative learning, assignment management, and student discussions.
5. *Virtual Reality (VR)* and *Augmented Reality (AR)* technologies can create an immersive learning experience, allowing students to interact with educational content in an environment.
6. Learning *Flipped Classroom*. Innovation pedagogy utilizes digital Technology to revolutionize conventional methodology for disseminating educational content. In this model, participants are initially educated through instructional materials delivered via video or Power education, and then participate in interactive discussions and activities in a classroom setting. In addition, this model empowers educators to compile experiences more individually and align learning with the needs of specific students. Participants now have greater access to various online

education platforms that offer content in multiple formats, including videos, articles, and resources—power interactive others. Benefits include: improving student involvement in the educational process, facilitating differentiated learning, improving understanding and interaction, and developing an application-based approach.

7. *Blended Learning.* Approach skill-based education *in a progressive way*. This integrated instructional method advances traditional face-to-face instruction by combining online learning. This method provides students with flexibility and accessibility in their studies. The integration of technology and digital resources is a fundamental characteristic of the learning mix, significantly contributing to innovative education in the contemporary digital landscape. Approach it also offers students autonomy, space, and time, allowing them access to the material education in accordance with their desires, regardless of location. In addition, the merger of online and face-to-face learning advances students' ability to adapt to their preferences and styles. They study, sharpen their digital competence, and encourage learning independent learning (Nurhayati dkk., 2024, hlm. 65–75).

### **3.4. Challenges Faced by Teachers in the Implementation of Learning Innovations in the Digital Age**

1. Limitations of the source: Power in the implementation of learning strategies. Limitations in access to Technology or even the means of access can hinder the learning process, making it difficult for teachers to deliver engaging, innovative instruction to students.
2. Challenge pressure time. Pressure time is one of the enemy's primary teachers in designing high-quality, attractive learning. Limited time often makes teachers feel in a hurry to convey material, which, in the end, can influence the quality of students' in-class study.
3. Lack of involvement of students. The lack of student involvement often makes it challenging for teachers to implement interactive learning strategies. When students are not actively involved in class, achieving objective learning will be difficult. Phenomenon: This can be caused by various factors, such as students' lack of bravery to participate in learning activities, a lack of motivation to learn, and a lack of relevant learning materials (Harahap dkk., 2024, hlm. 785).

4. Ability to master the digital platform from the Ministry of Education and Culture. Teachers deliver education and teach IoT (Internet of Things) courses, introducing students to development knowledge and Technology. The Independent Teaching Platform (PMM) is an application technology provided by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia to support teachers as partners in teaching, learning, and creating. Application: This application has several features, namely: first, the creation of an assessment for students; second. Implementation learning independently through various available training; third , record teacher performance with input activity through feature action real; fourth, provide inspirational videos that can be made into reference in learning; fifth, get input and criticism from Past colleagues on various activities; and sixth, provide book texts and teaching modules as material references in the learning process. The presence of Technology, communication, and information has become an extraordinary challenge for every teacher, as they are required to adapt quickly and innovate in learning to remain relevant and ensure no one is left behind.
5. Ability to measure results. Study students using digital evaluation tools. The platform used to take notes and score students is the Merdeka Report, which was designed to evaluate mastery skills such as objective education, breadth of material, and achievement in learning. This platform simplifies the process of educators taking notes on students' performance. The development team offers instructional videos on their YouTube channel that explain the application's functionality, helping teachers who may face challenges or need a moment of refreshment before entering class (Kinas & Nilawati, 2024, hlm. 111–112).

### **3.5. Efforts Made by Teachers to Increase Ability and Understanding of Learning Innovations in the Digital Age**

Professionalism among educators in the modern era is fundamental because it affects the quality of education and educators' ability to meet the needs of future education participants. The digital era brings rapid, demanding changes for educators in the field of Technology, with Technology used as a nuanced, interactive, and engaging learning medium. Therefore, educators must make several efforts to ensure the material presented remains relevant to the character of participant education in the modern era.

1. Adaptation to new Technology: Professional educators need to have their own Spirit, vision, and the ability to adapt to Technology. Technologies such as e-learning platforms, online collaboration tools, and learning applications require both understanding and specialized skills. So, from that, professionalism demands that a teacher be able to integrate Technology into the realm of learning so that creative students can grow and increase efficiency during the ongoing learning process.
2. Improving the quality of learning: Professional educators are also reflected in their ability to apply innovative and effective learning methods. In the modern era, the *flipped classroom* project-based learning has become more relevant to the needs of 21st-century education. Professional educators can choose and adapt the most appropriate learning method to increase active participation, educate, and optimize learning results.
3. Develop digital skills: An educator professional strives to have adequate digital competency to utilise various technologies and devices for learning. Skills include using a computer, using educational software, participating in academic classes, maintaining and accessing resources, and utilizing resources effectively. Mastery of good digital skills allows educators to expand access to learning materials, improve interaction with participants, educate, and create an interactive, dynamic learning environment.
4. Ethics and responsibility: answer professionally. Professionalism also includes ethical and accountability considerations in the use of Technology. Educators must understand and apply ethical principles in the use of Technology, including student data privacy and security, as well as the responsible use of digital power. Professional ethics help create a safe, reliable environment for students.
5. Development professional: Professionalism, educator demands, and commitment to learning and development are sustainable. In the digital era, teachers need to keep up with the latest developments in technology education, pedagogy, and curriculum. Through participation in activities such as training, seminars, workshops, and online courses, educators can renew their knowledge and skills to remain relevant, adaptable, and practical amid dynamic changes in the world of education.(Rudianti dkk., 2024, hlm. 735–736)

#### 4. CONCLUSION

This study concludes that teachers' understanding of draft learning in the digital era is a fundamental element for the quality of modern education. In the contemporary era, this role of educator has transformed from simply transmitting material to becoming a facilitator of Technology that requires more digital literacy than the participants in their education. Implementing innovative strategies, such as *blended learning* models, *flipped classrooms*, and *gamification*, using platforms like *Zoom*, *Google Classroom*, and *PowerPoint*, has proven to create an interactive and adaptive learning experience. The interactive effectiveness of implementation is greatly influenced by factors such as access to Technology, quality training, a sustainable, flexible curriculum, and teachers' internal motivation to keep learning despite challenges, pressure, time, and power limitations. Therefore, increasing educators' professionalism through mastery of digital pedagogy, ethical practice, and continuous self-learning is a key priority to ensure the knowledge transfer process remains relevant, inspiring, and able to meet the needs of *digital natives* in the future.

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