

Economy in the digital age: A blended learning-based digital mindset training model at the manager level of banking institutions

Carlia Isneniwati^{1*}, Robinson Situmorang², Cecep Kustandi³

¹Department of Education Technology, Universitas Negeri Jakarta, Jakarta 12550, Indonesia. ^{2,3}Department of Education Technology, Faculty of Education, Universitas Negeri Jakarta, Jakarta 12550, Indonesia.

Corresponding author: Carlia Isneniwati (Email: Carlia.Isneniwati@mhs.unj.ac.id)

Abstract

Blended learning-based digital mindset training models at the managerial level of banking institutions are integral to economic development. In the economic field, digital transformation has become a business model phenomenon in conducting business renewal. Thus, the business world is encouraged to carry out digital transformation as an economic demand in the digital era. One of the business fields that continues to transform is the banking industry. In Indonesia, ASK Learning is one of the training centers for banking institutions. Therefore, to encourage the connectivity of digital transformation with the banking world, a digital mindset is needed. This study aims to analyze the blended learning-based digital mindset training model at the managerial level of banking institutions. This research collaborates with 10 participants who have a work background in the banking sector. Data collection techniques in this study were carried out through observation, in-depth interviews, and documentation. The interviews were conducted for 120 minutes for each participant. In-depth interviews were structured and conducted three times over four consecutive months. Data analysis was conducted by researchers through three stages: reduction, data presentation, and conclusion drawing. The results of this study show that a digital mindset is an approach that can be used by the banking industry to understand and utilize existing data. Thus, with the blended learning-based digital mindset training, the banking industry can conduct market and audience analysis through various social media platforms. In addition, this research has implications for technological innovation in banking services by improving banking services and operations through technology. Furthermore, this research concludes that digital mindset training is the basis for the banking industry to build digital collaboration and networks in banking leadership.

Keywords: Banking institution, Blended learning, Digital era, Digital mindset.

DOI: 10.53894/ijirss.v8i1.4468

Funding: This study received no specific financial support.

History: Received: 12 December 2024/Revised: 17 January 2025/Accepted: 28 January 2025/Published: 4 February 2025

Copyright: © 2025 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: Introduction, literature review, methods and results, C.I.; results and conclusions R.S., C.K. All authors have read and agreed to the published version of the manuscript.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Institutional Review Board Statement: The Ethical Committee of the Universitas Negeri Jakarta, Indonesia has granted approval for this study on 10 February 2024 (Ref. No. 114/UN39.17/II/2024).

Publisher: Innovative Research Publishing

1. Introduction

Digital transformation is one of the most significant phenomena of the early 21st century. It is defined as changes associated with the adoption of digital technologies across all aspects of human life[1]. Langer [2] states that digital transformation is a new investment in technology and business models to improve economic competitiveness, even though digital technology continues to change rapidly in creating new value for customers. From a business perspective, digital transformation enables organisations to implement new innovations and reimagine business processes by leveraging technology [3]. From this perspective, digital transformation involves a form of re-engineering that not only relates to the way systems work together but also encompasses the entire business itself. Some view digital transformation as simply eliminating the use of paper in organizations, while others see it as business renewal to meet the demands of the digital economy [4].

Digital transformation, the utilisation and use of information technology has radically changed the working environment of employees [5]. Almost no employee effort can be accomplished without at least some involvement in digitalization; employees work with computer devices, use software programs, communicate via email, chat, or video calls, collaborate in virtual spaces, and access their work from multiple devices at various locations and times. Digital work environments constitute a new cognitive ecology that activates cognition and requires reasoning. Context becomes part of the individual's cognitive whole in the sense of an imagined context. These beliefs about digital transformation are combined with beliefs about the self to understand the digitalization of the digital work environment [6].

Companies in the industrialized world should start considering digital transformation and synchronize their business rhythm with the development of the world. Digital transformation is the integration of digital technology in all areas of business, fundamentally changing the way it operates and delivers value to customers [7]. Companies adopt innovative digital technologies to make cultural and operational changes that better adapt to changing customer demands.

The ongoing era of digital transformation has a profound impact on almost all aspects of human life and various industrial sectors. This transformation marks a shift from conventional systems to a more digital approach in carrying out various activities, ranging from social interactions, business, to public service procedures [8]. Digital transformation not only involves the use of new technologies but also requires changes in work culture, business processes, and strategies. For example, the corporate world, including large companies, is now implementing digital work methods that allow operations to be more efficient and meet the demands of a fast-paced era. Employees are also faced with the adaptation of technology-oriented skills and working methods.

Training and development also helps companies develop the human resources needed to meet competitive challenges [9]. The role of training has expanded beyond the design of training programmes. Effective learning design remains important, but training managers, human resource experts and trainers are increasingly being asked to create systems that motivate employees to learn, not only in programmes but also informally on the job; create knowledge; and share that knowledge with other employees in the company. Training practices have helped grow businesses and improve customer service by equipping employees with the knowledge and skills needed to be successful [10].

Companies want a workforce that is motivated and productive, has up-to-date skills, and can quickly learn new skills to meet changing customer and market needs in the era of digital transformation. Despite the prevalence of job displacement, companies want to provide a work environment and training and development opportunities that will help them become an employer of choice for talented employees. Employees want to develop skills that are not only useful for their current job, but also aligned with their personal interests and values. With increasing demands on working time, employees also have an interest in maintaining a balance between work and non-work interests [11].

Every company has access to technology. They are free to choose whether to use it or not, and decide what to use it for. Companies as a whole are entering a new era, the era of digital transformation. However, companies still have to go through some changes to be successful in this digital transformation era. Why does this happen? To succeed in this digital transformation era, companies must go through several changes. But why does this happen? In the organisational structure, companies basically have people who are placed as manager level. A manager in a company is the one who must first integrate technology into his own life and then introduce it into the life of the company [12].

In Indonesia, the banking sector is one that has been significantly impacted by digital transformation. Bank BRI, as one of the largest banks in Indonesia, has made a series of adaptations to welcome the digital era [13]. The implementation of

digital services not only makes transactions faster and easier, but also allows banks to expand their reach to areas that were previously difficult to reach by conventional services. Supporting data such as the high internet penetration and smartphone usage in Indonesia adds to the argument that the future of banking lies in digitalisation. Technological innovations such as the Internet of Things (IoT) enable devices to connect and communicate with each other, cloud computing provides flexible and scalable data storage solutions, while artificial intelligence (AI) and machine learning provide increasingly sophisticated analytics and automation capacities. Therefore, training that integrates digital technology is required [14].

Training is not a luxury but a necessity if companies want to participate in the global and electronic marketplace by offering high-quality products and services. Training prepares banking employees and managers to use new technologies, function in new work systems, and so on as virtual teams, and communicate and co-operate with colleagues or customers who may be from different cultural backgrounds [15]. Developing a strong digital mindset is the most appropriate solution as an important step towards the future success of companies and human resources. Digital mindset is an attitude, belief and way of thinking that enables a person or organisation to adapt to technological change. More than just its utilisation, it also involves an awareness of the potential of technology to increase productivity, innovation and human connection.

Leonardi and Neeley [16] suggest a digital mindset is the set of approaches we use to understand and utilise data and technology. A set of attitudes and behaviours, it enables people and organisations to see new possibilities and chart a path to the future. Big data, algorithms, AI, robotic teammates, internal social media, blockchain, experimentation, statistics, security, and rapid change are some of the major digital forces that are changing the way we live and work. These forces are becoming the way we interact with colleagues and creating new demands to restructure organisations to become more competitive.

A digital mindset opens up new opportunities and growth potential for individuals [17]. By adopting a digital mindset, individuals can capitalise on emerging technology trends, start new ventures, develop desired digital skills, and achieve sustainable success in the digital age. Individuals with a digital mindset are more open to new ideas, innovative use of technology, and problem-solving with a different approach. This makes it possible to create more effective solutions and generate added value. Through a digital mindset, individuals can utilise digital tools and technology to increase productivity. Understanding how to use digital tools efficiently and effectively helps improve competency and work efficiency, automate routine tasks, and accelerate business processes.

Research reveals that digital and social technologies have changed the way people of all ages learn, train collaborate, play, socialise, access resources and services, and connect [18, 19]. A participatory classroom is one in which learners make choices about the material they study and negotiate learning methods. In a connected digital environment, they search, select and explore rich online resources, build ideas, work on projects and design solutions with local and global peers, and publicise creations in local and online spaces. Blended learning-based digital mindset training model at the banking institution manager level technology is an inseparable part of economic development. In the economy, digital transformation has become a business model phenomenon in conducting business renewal. Thus, the business world is encouraged to implement digital transformation as a demand of the economy in the digital era. One of the business fields that continues to transform is the banking industry. In Indonesia, ASK Learning is one of the training centres for banking institutions. Therefore, to encourage the connectivity of digital transformation with the banking world, a digital mindset is needed. This research aims to analyse the digital mindset training model based on blended learning at the manager level of banking institutions.

1.1. Research Question

• How is the implementation of Digital Mindset Training Model Based on Blended Learning at the Manager Level of Banking Institutions?

2. Literature Review

The economy in the digital era poses challenges to economic globalization. Thus, economic globalization gives rise to an economy that affects relationships between countries and also the formation of trade traffic among various countries around the world [20]. Therefore, changes that occur in the process of economic globalization in the digital era can have an impact on the cyber revolution. For this reason, various banking companies have developed training models using blended learning approaches. Blended learning is more than just the addition of Information and Communication Technology to conventional classroom teaching. It aims to integrate face-to-face teaching and technology-based learning. Blended learning can be both simple and complex depending on the effective integration of the two basic components. At first glance, it seems simple to integrate face-to-face learning experiences with online learning experiences, but due to the almost limitless design possibilities and applicability to many contexts, blended learning can be very complex. Both components of blended learning have their strengths and weaknesses [21].

Learning can be thought of as a dynamic cycle involving four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Firstly, the trainee encounters a concrete experience (e.g., a work problem). This is followed by thinking (reflective observation) about the problem, leading to the generation of ideas on how to solve the problem (abstract conceptualization) and finally implementing the ideas directly into the problem (active experimentation). The application of the ideas provides feedback on their effectiveness, allowing the learner to see the results and restart the learning process. Trainees continue to develop concepts, translate them into ideas, implement them, and adapt them based on their personal observations of their experiences [15].

Understanding learning outcomes is important as it influences the characteristics of the training environment required for learning to occur. For example, if trainees want to master a motor skill such as pole climbing, they must have the opportunity to practice climbing and receive feedback on their climbing skills. There are various types of training: introduction and teaching about employee culture, apprenticeship, skills training, coaching, on-the-job training, safety training, quality training, and so on. The most suitable delivery method for the workplace is definitely e-learning (online learning and blended learning included). It utilizes advanced technology that saves time and produces better learning outcomes. E-learning has made training methods such as simulation and gamification easy to deliver and access. Simulation refers to the use of software to enrich the training process. Gamification also utilizes advanced software and enriches training through gameplay.

On the other hand, the digital economy is also closely related to the utilization of technology in education. Technological tools, sometimes known as the hardware approach to educational technology, but more commonly referred to as tools such as audiovisual or learning media, can be considered technology in education. Meanwhile, the educational application of knowledge from the behavioral sciences, such as psychology, forms the basis of educational technology [22]. Educational technology refers to the application of science-based knowledge to education and teaching planning, as well as solving basic teaching-learning problems. Technology, in this sense, is an applied science. It is concerned with educational processes, as well as hardware and software systems. Driscoll [23] discusses four principles that offer a framework for trainers to think about how technology can support teaching: (1) Learning occurs in context, including the ways technology can facilitate learning by providing real-world contexts that engage learners in solving complex problems, as well as computer simulations and computer-based micro-worlds that offer learners contexts for exploring and understanding complex phenomena across a range of subjects; (2) learning is active, including the use of brainstorming, concept mapping, or visualization software, as well as simulations that allow learners to experiment with modeling complex ideas; (3) learning is social, including software that supports networked, multimedia environments where learners collaborate on learning activities; and (4) learning is reflective, including technology that encourages communication inside and outside the classroom, allowing for feedback, reflection and revision.

Digital teaching tools as technologies expand the capacity for interaction between educators and learners, facilitating a more personalised approach to teaching. These technologies act as readily available instructional resources, allowing educators to organise tasks both as a whole class and in small groups or even in the context of one-to-one learners. Intelligent tutoring systems, speech-to-text and text-to-speech software, handwriting recognition programmes and other assistive technologies, are designed to meet the unique needs of each participant by providing specific tools to help them succeed. These technologies give individuals a voice, boost confidence, and provide a means to express their knowledge. In addition, these technologies also change the traditional assessment paradigm to a more dynamic one [24].

The 21st century trainer or instructor must learn to harness the potential of technology to make learning more efficient, effective and engaging for all participants. Therefore, trainers must make informed and purposeful teaching choices regarding which technologies best support the needs of their learners.

The role of the trainer/instructor in selecting technology for learning is critical. Many technologies have been designed specifically for educational environments (e.g., educational software, "clickers", interactive whiteboards, and so on); others have been developed primarily for business-like environments and adapted for classroom use (e.g., Microsoft Office Suite). Some of these technologies are objects that participants physically interact with or manipulate (e.g., computer hardware and peripherals). Other tools must be loaded or installed on another device to enable interaction (e.g., computer software or Web-based applications), Kilbane and Milman [25].

In the face of today's educational challenges, the learning design process plays an important role in enabling trainers and instructors to respond effectively. A systematic approach to learning design encourages reflection and inventory of available resources and challenges, motivating trainers to explore instructional objectives in depth through critical questions such as "What is to be achieved?" and "What resources or technologies can be utilized to achieve this goal?" In the role of instructional designer, educators are empowered to optimize the use of the tools at their disposal and to make informed decisions regarding the technology to be used to achieve learning objectives. Educational technology has contributed significantly to the advancement of both formal and non-formal educational pathways, such as in setting educational goals and objectives, assisting in the development of appropriate curricula, managing and utilizing available resources effectively, producing and developing learning materials, developing and selecting learning strategies and tactics, selecting and using appropriate audio-visual aids, and providing essential feedback and control through evaluation.

3. Materials and Method

3.1. Research Design

This research employs a qualitative approach utilizing a case study method. The developed case study pertains to the digital mindset training model based on blended learning. The participants in this study consisted of 12 bank managers who were selected using a purposive sampling technique. Therefore, the selection of these participants was based on the research requirements and their experience with blended learning. The following is the list of participants in the study.

No.	Name Initials	Gender	Age	Position
1	AH	М	50 y.o.	Head of SKJPW affairs
2	HS	W	45 y.o	VP financial reporting - finance division
3	TR	W	40 y.o.	VP Bureau IMM1 (Business work unit)
4	SM	М	42 y.o.	Head of Marketing Affairs
5	Kindergarten	М	50 y.o.	VP CSR
6	NS	М	48 y.o.	Head of external public relations
7	HP	W	40 y.o.	Senior EVP
8	MA	М	38 y.o.	Head of logistics - business support division
9	SW	W	41 y.o.	Head of Branch network affairs
10	EB	М	45 y.o.	VP PR

Table 1. Participants.

3.2. Data Collected

This interview aimed to obtain information, understanding, and views on several important aspects to conduct a needs analysis regarding the digital mindset training process attended by the summarized banking institution managers. The interviews were conducted in each participant's office according to their availability. The length of each interview was 120 minutes. Interviews were conducted in two stages: first to analyze training needs and then after conducting blended learning-based digital mindset training. During the blended learning-based digital mindset training, the researcher conducted participatory observation by observing the participants' activities. This research observation aimed to obtain indepth data rather than just the level of meaning (values behind visible, spoken, and written behavior). In observation, the researcher immediately records behaviors that can provide validity to the phenomenon being studied. These phenomena include gestures, behaviors, facial expressions, and responses when answering questions.

3.3. Data Analysis

Before analyzing the data, researchers tested the validity of the data through triangulation. Triangulation is a multimethod approach taken by researchers when collecting and analyzing data. The basic idea is that the phenomenon under study can be well understood, so that a high level of truth can be obtained if it is approached from different perspectives, which will allow a reliable level of truth to be achieved. This research uses the Miles and Huberman technique through three qualitative analyses, namely data reduction, data presentation, and conclusion drawing.

4. Results and Discussion

4.1. Implementation of Digital Mindset Training Model Based on Blended Learning at the Manager Level of Banking Institutions

Digital work environments are new cognitive ecologies that activate cognition and require reasoning. Context becomes part of the individual's cognitive whole in the sense of an imagined context. These beliefs about digitalization are combined with beliefs about the self to make sense of the digital work environment. Through this approach, an employee forms his or her personal digitalization meaning, which, depending on the appropriateness of his or her beliefs, can be positive, negative, conflicting, or unrelated to an employee's digital mindset. From the theoretical considerations discussed here, a digital mindset is a digitization-specific self-perception that enables employees to understand who they are in a digital work environment. Therefore, digital mindset training is important.

"*Digital mindset* is one of the trainings that can be applied to us banking employees. Actually, I get the information from the head of the division and division work meetings as support in work. " (AH, Interview Results 28 August, 2024).

"The benefits of *digital mindset* training and learning materials are very important because they have entered daily life, especially in the field of work. *Digital mindset* material education needs to be done, because it is important material in supporting work and operational activities according to the scope of work, such as the development of application applications, speed and effectiveness at work. Development of service products and communication facilities and networks for respondents from the marketing communication team division, *merchant* team and other division teams" (SM, Interview Results 28 August, 2024).

The results of AH and SM interviews show that the digital mindset has been recognised by several sections in the banking sector. However, not many banking institutions have implemented blended learning-based digital mindset training.

"*e-learning* training on materials that are directly related to the respondent's work such as structuring an independent cash machine (ATM) network as well as digital *culture* materials. Through *e-learning* learning is relatively flexible in terms of time, time can be chosen according to busy work activities" (NS, Interview Results 30 August, 2024).

The interview results show that e-learning is not only used in the learning process in educational institutions. However, e-learning can be an alternative learning media for banks. The development of a *digital mindset learning* model based on *blended learning* has been developed referring to the instructional system design model of Dick, et al. [26] up to stage 8, namely up to the formative evaluation stage. Dick, Carey, and Carey's instructional system design model provides systematic steps, including analysis, design, development, and evaluation. This systematic approach is essential in developing a digital mindset-based learning model. In the sixth step of the Dick, Carey, and Carey model, namely,

developing instructional strategies, the Integrated Design Learning Framework is applied, Dabbagh and Ritland [27]. And in the seventh step of Dick, Carey and Carey in developing selecting and selecting learning media, using [28]. Developing digital mindset training-centred assessment is expected to serve as a learning event in the context of digital mindset training, and in this digital mindset training model, trainees are encouraged to engage in self-assessment in their path to assume responsibility for the quality of their own work, Dick, et al. [26].

The definition of trainee-centred assessment is in line with the traditional definition of criterion-referenced testing, a key element of systematically designed instruction. Trainee-centred assessment should be criterion-referenced (that is, linked to the training objectives and a set of explicit performance objectives derived from those training objectives). Assessment of learning outcomes in digital mindset training can be defined as the collection of data and information aimed at determining the success of trainees. Assessment of learning outcomes is further classified into "criterion referenced evaluation" and "norm referenced evaluation".

Benchmark-based assessment refers to the learning objectives or competencies that trainees should have after taking the digital mindset training programme. Meanwhile, norm-referenced assessment refers to the ranking shown by bank employees at the manager level after taking the blended learning-based digital mindset training programme.

Assessment forms and instruments can be used to measure the learning outcomes of digital mindset trainees. The form of test used to measure the learning outcomes of the digital mindset training uses an objective test or multiple-choice test. This multiple-choice test is a test that asks for responses from trainees to choose the correct answer from a statement or problem that needs to be resolved. In this multiple-choice test, there is a statement or problem called a "stem" and alternative answer choices with one correct answer or the right answer.

The application of rating scale instruments in digital mindset training emphasises giving weight to aspects of the abilities shown by trainees that reflect mastery in the field of digital mindset learned. Rating scale instruments in digital mindset training can be used to assess trainees' ability to process and create ideas or a product or findings.

Rubrics are an easy-to-use form of authentic assessment (us.iearn.org). As a form of authentic assessment that can be used in assessing the actual competence of participants, rubrics contain a series of criteria or indicators that are components or parts of the behaviour or performance being assessed. For example, when training participants are asked to demonstrate their ability to present ideas in digital transformation using a digital mindset that has been carried out, the assessment component consists of several indicators, namely: (1) the ability to present data; (2) the ability to explain the substance; (3) the ability to communicate findings or findings of experimental results. These three criteria are translated into a number of assessment sub-components which are then given weights and values or scores. The rubric can be used as a clear guide for instructors to provide fair and objective assessment of the process and the product or work that is the participant's learning outcome.

The use of authentic assessment in this blended learning-based digital mindset training, when trainees analyse cases or present ideas in digital transformation in banking, trainees are asked to show their ability to present their abilities that have been done, the assessment component consists of several indicators, namely; (1) the ability to present data; (2) the ability to explain the substance; (3) the ability to communicate the findings of digital innovation in banking. These three criteria are translated into an assessment sub-component which is then given a weighted value or score.



Digital mindset training book cover.

Figure 1 shows that digital mindset training can be packaged using e-modules as a form of blended learning. Thus, researchers provide opportunities for participants to conduct training through the digital mindset. The digital mindset training was conducted for 180 minutes through three sessions. Each participant was given the opportunity to read the e-module before starting the training. After the training, the researcher gave 60 minutes to the participants to conduct the interview.

Interview results of digital mindset training.				
No.	Aspects	Statements		
1	Training objectives	The objectives of digital mindset training are clearly formulated to help participants		
		November 2024).		
		The training objectives formulated are very clear and easy to understand for beginners (NS, interview results 15 November 2024).		
2	Presentation technique	The structured presentation technique is designed so that participants can follow the		
		learning in the digital mindset training more easily (SW, Interview Results 15		
		November 2024).		
		The presentation is very unique and really digital-based so it's not just theoretical." (EB, interview results 15 November 2024)		
3	Learning module	The images or illustrations presented in the learning module and digital mindset		
		learning management system are effectively designed to support the understanding of		
		the concepts and materials described (AH, Interview Results 15 November 2024).		
		The clarity of the instructions for doing the exercise questions helps participants in		
		learning and working on digital mindset learning materials (TR, interview results 15		
		November 2024).		

Table 2 shows that participants' responses to the digital mindset were diverse and favourable.

4.2. Discussions

The digital mindset training that has been implemented at ASK Learning for manager-level banking employees, integrates digital mindset learning and training principles, and motivation with practical training and teaching ideas to implement a blended learning-based digital mindset training programme is a training programme that helps trainees to help and develop the right digital mindset and behaviour. This training programme can help trainees to; understand the concept of digital mindset and behaviour, develop digital skills needed to succeed in the digital era, teach strategies to manage information and data, teach digital ethics and security, and help understand and adapt to digital changes, especially in the banking business.

Digital mindset is the mindset that underlies one's attitude, views, and actions towards technological development and innovation in the digital era. A strong digital mindset can help one to embrace digitalisation and make the most of technology. The concept of digital mindset training for bank employees at the manager level. Companies that promote this digital culture are more likely to be innovative, adaptive, innovative and responsive to market changes, especially banking.

Digital mindset in the banking business world is a mindset and mental attitude that allows banks to make good use of digitalisation and technology. Digital mindset training for banking manager-level employees can help create a digital ecosystem, so that the banks they work for are able to create a digital banking ecosystem that can be accessed anywhere, the business chain becomes more efficient. Digitalisation can reduce operational costs, for example by reducing the cost of opening new branch offices. Effective and efficient digital services also increase customer convenience. In addition, customers can provide direct feedback to the bank through their activities in the application or platform provided. Thus, banks can increase customer confidence and trust by providing a consistent digital banking experience.

5. Conclusion

This study concludes that educational technology can impact the digital economy through banking institutions. Digital mindset training is an alternative for banking institutions to provide a comprehensive, interactive, and flexible learning experience, so as to enrich participants' understanding through a combination of structured classroom learning and self-learning. This approach is expected to fulfil the learning needs of bank employees in building a digital mindset that is relevant to the demands of the digital era.

6. Implication

This research has an implication that the blended learning-based digital mindset learning process will be more meaningful if it utilises and applies a training model approach. A training model is also a series of training patterns available to instructors or trainers when planning teaching or training. A training model is a step-by-step procedure that leads to learning outcomes in training a specific material. A training model presents the very detailed steps necessary to achieve the desired trainee learning outcomes. Choosing a model or designing which training model to use depends on the expected training objectives, the achievability of the training objectives and the learning outcomes of the trainees. The best

training models are based on what we know about trainees and how individuals learn and have been widely used and supported by empirical research.

References

- [1] E. Stolterman and A. C. Fors, *Information technology and the good life*," *in technology and the good life*? Chicago: University of Chicago Press, 2010.
- [2] A. M. Langer, *Information technology and organizational learning: Managing behavioral change in the digital age*. Florida: CRC Press, 2024.
- [3] G. Lóska and J. Uotila, "Digital transformation in corporate banking: Toward a blended service model," *California Management Review*, vol. 66, no. 3, pp. 93-115, 2024. https://doi.org/10.1177/00081256231207429
- [4] D. Elder-Vass, "Moral economies of the digital," *European Journal of Social Theory*, vol. 21, no. 2, pp. 141–147, 2018.
- [5] S. B. Egala, J. Amoah, A. Bashiru Jibril, R. Opoku, and E. Bruce, "Digital transformation in an emerging economy: Exploring organizational drivers," *Cogent Social Sciences*, vol. 10, no. 1, p. 2302217, 2024. https://doi.org/10.1080/23311886.2024.2302217
- [6] Q. Fang, N. Yu, and H. Xu, "Governance effects of digital transformation: From the perspective of accounting quality," *China Journal of Accounting Studies*, vol. 11, no. 1, pp. 77-107, 2023. https://doi.org/10.1080/21697213.2023.2148944
- [7] I. Siswanti, H. A. Riyadh, L. C. Nawangsari, Y. Mohd Yusoff, and M. W. Wibowo, "The impact of digital transformation for sustainable business: The meditating role of corporate governance and financial performance," *Cogent Business & Management*, vol. 11, no. 1, p. 2316954, 2024. https://doi.org/10.1080/23311975.2024.2316954
- [8] L. Hughes, J. J. Seddon, and Y. K. Dwivedi, "Disruptive change within financial technology: A methodological analysis of digital transformation challenges," *Journal of Information Technology*, p. 02683962231219512, 2023. https://doi.org/10.1177/02683962231219512
- [9] Y. Muñoz-Martínez, F. Gárate-Vergara, and C. Marambio-Carrasco, "Training and support for inclusive practices: Transformation from cooperation in teaching and learning," *Sustainability*, vol. 13, no. 5, p. 2583, 2021. https://doi.org/10.3390/su13052583
- [10] K. Pihlainen, K. Korjonen-Kuusipuro, and E. Kärnä, "Perceived benefits from non-formal digital training sessions in later life: Views of older adult learners, peer tutors, and teachers," *International Journal of Lifelong Education*, vol. 40, no. 2, pp. 155-169, 2021. https://doi.org/10.1080/02601370.2021.1919768
- [11] F. Imran, K. Shahzad, A. Butt, and J. Kantola, "Digital transformation of industrial organizations: Toward an integrated framework," *Journal of Change Management*, vol. 21, no. 4, pp. 451-479, 2021. https://doi.org/10.1080/14697017.2021.1929406
- [12] E. Brynjolfsson and L. M. Hitt, "Beyond computation: Information technology, organizational transformation and business performance," *Journal of Economic Perspectives*, vol. 14, no. 4, pp. 23-48, 2000.
- [13] L. Muliasari, "Digital banking strategy analysis of BRI," Journal of Economics, vol. 11, no. 2, pp. 842–853, 2022.
- [14] W. S. Alaloul, M. Liew, N. A. W. A. Zawawi, and I. B. Kennedy, "Industrial revolution 4.0 in the construction industry: Challenges and opportunities for stakeholders," *Ain shams Engineering Journal*, vol. 11, no. 1, pp. 225-230, 2020.
- [15] R. Noe, Employee training & development. New York: McGraw Hill Education, 2020.
- [16] P. Leonardi and T. Neeley, *The digital mindset: What it really takes to thrive in the age of data, algorithms, and AI.* Boston: Harvard Business Review Press, 2022.
- [17] M. Krohn and A. Jantos, "Digital Mindset als wichtigste Voraussetzung im Lern-und Lehralltag der Zukunft: Weiterentwicklung studentischer Digitalkompetenzen: Eine interdisziplinäre Perspektive," *Lessons Learned*, vol. 2, no. 2, pp. 1-5, 2022.
- [18] M. Simmons, M. McDermott, S. E. Eaton, B. Brown, and M. Jacobsen, "Reflection as pedagogy in action research," *Educational Action Research*, vol. 29, no. 2, pp. 245-258, 2021. https://doi.org/10.1080/09650792.2021.1886960
- [19] M. Thirupathi, G. Vinayagamoorthi, and S. Mathiraj, "Effect Of cashless payment methods: A case study perspective analysis," *International Journal of Scientific & Technology Research*, vol. 8, no. 8, pp. 394-397, 2019.
- [20] A. R. Young, "Governing the digital economy: Transatlantic accommodation and cooperation," *Journal of European Integration*, vol. 46, no. 7, pp. 973-992, 2024.
- [21] F. Wang, H. Wang, and L. Xiong, "Does the digital economy exhibit multiplier effects? A case study on the optimization of agricultural production structure in rural digital economy," *International Journal of Agricultural Sustainability*, vol. 22, no. 1, p. 2386821, 2024.
- [22] D. A. Spencer, "Fear and hope in an age of mass automation: debating the future of work," *New Technology, Work and Employment*, vol. 33, no. 1, pp. 1-12, 2018.
- [23] M. P. Driscoll, *How people learn (and what technology might have to do with it)*. ERIC Clearinghouse on Information and Technology Syracuse, NY, 2002.
- [24] R. Maloy, S. Kommers, A. Malinowski, and I. LaRoche, "3D modeling and printing in history/social studies classrooms: Initial lessons and insights," *Contemporary Issues in Technology and Teacher Education*, vol. 17, no. 2, pp. 229-249, 2017.
- [25] C. R. Kilbane and N. B. Milman, *Teaching models: Designing instruction for 21st century learners*. Boston, MA: Pearson, 2014.
- [26] W. Dick, L. Carey, and J. O. Carey, *The systematic design of instruction*, 8th ed. Upper Saddle River, NJ: Pearson, 2015.
- [27] N. Dabbagh and B. B. Ritland, Online learning: Concepts, strategies, and application. Ohio: Pearson, 2005.
- [28] D. Rowntree, *Preparing materials for open, distance and flexible learning: An action guide for teachers and trainers.* London: Kogan Page, 1994.