Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

Mapping of Guidance Learning Competencies in Facing Digital Learning

[1] Mahfuzi Irwan, [2] Putri Ramadhani Lubis, [3] Ikhwanu Sopia Nasution, [4] Desi Wulansari, [5] Sisilia Brigita Siahaan, [6] Dhieta Naiya Arthameyvia Pasaribu

[1,2,3,4,5,6] Universitas Negeri Medan

Email: putrilubis652@gmail.com

Article Info

Keywords:
Professional Competence, Learning Guide, Industrial Revolution 4.0, Digital Learning, Efforts.

ABSTRACT

The Industrial Revolution 4.0 is a major phenomenon that has changed the global landscape in various aspects of life, including education. These changes have a significant impact on the competence of learning teachers, who must adapt quickly to meet the demands of this digital era. In the Industrial Revolution 4.0, the role of tutors has changed to be more than just teachers. They must be the main drivers of project-based and collaborative learning, where learners can work in teams to develop projects that are relevant to the real world. Learning tutors must encourage creativity, courage to think, and students' problem-solving abilities. This change requires learning teachers to explore the spirit of exploration and innovation within themselves, so that they can inspire students to do the same. To face the 4.0 revolution, the author intends to design the competencies that learning teachers must have, for example the professional competence of learning teachers. The research method used by the researcher is a qualitative approach and the collection of research data that will be used is a questionnaire. The professional competence possessed by learning tutors is expected to improve the teaching ability of learning tutors and with the professional competence they have, it is hoped that learning tutors can face the industrial revolution 4.0.

This is an open access article under the CC BY license

Corresponding Author:
Putri Ramadhani Lubis
E-mail: putrilubis652@gmail.com

INTRODUCTION

The Industrial Revolution 4.0 has brought major changes in various aspects of life, including in the field of education. This change encourages universities and non-formal educational institutions to adapt to technological developments through curriculum adjustments, education policy updates, and educator competency development. The profession of learning facilitator, as one of the important elements in non-formal education, is required to be able to respond to this challenge by improving professional competence and utilizing information and communication technology (ICT) in the learning

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

process. The role of learning facilitators is very significant in creating a responsive, innovative, and adaptive learning environment in accordance with the demands of the digital era.

As a profession engaged in non-formal education, learning facilitators face challenges in improving competency standards that include pedagogical, personality, social, and professional skills. However, various obstacles still stand in the way, such as the mismatch in the quality of educational personnel, the lack of appropriate competency measurement tools, non-needs-based coaching, and low educator welfare. Therefore, mapping the professional competencies of learning facilitators is an important first step in understanding the needs in developing their abilities. With a systematic approach, non-formal education can be supported by quality educators to achieve high academic standards.

In the era of the Industrial Revolution 4.0, digital literacy has become an essential competency for tutors. Digital literacy not only includes technical skills to use technological devices, but also critical thinking skills in accessing, understanding, and disseminating information effectively. This concept covers various aspects of information technology, from computing, multimedia, to internet-based communication. In the context of learning, ICT-based media such as online learning platforms, interactive simulations, and digital evaluation tools are innovative solutions that can create a more interesting, effective, and relevant learning experience. The use of information and communication technology in education has shown a significant positive impact.

Technology-based learning media, such as online tutoring, support changes in more adaptive ways of learning and teaching. In addition to facilitating access to learning, this media also increases students' interest and learning outcomes through interactive learning experiences. Along with the rapid development of information technology, it is important for tutors to continue to develop digital literacy and utilize various technological innovations to face challenges and opportunities in the Industrial Revolution 4.0 era. Thus, the tutor profession is not only an actor, but also an agent of change that plays an active role in supporting the quality of education in Indonesia.

METHOD

This study uses a qualitative method. The research on mapping the competencies of learning facilitators in facing digital learning is an in-depth and comprehensive research to identify, measure, and analyze the skills, knowledge, and attitudes needed by learning facilitators to be effective in supporting the learning process by utilizing digital technology. To obtain this information, the researcher conducted observations at PKBM Laskar Pelangi and provided a questionnaire containing

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

statements related to the mapping of the competencies of learning facilitators in facing digital learning and after obtaining the results of the questionnaire, the next step was to calculate the results.

RESULTS AND DISCUSSION

Understanding the Professional Competence of Learning Facilitators

Tutors are educators who play an important role in implementing teaching and learning activities, program assessments, and developing non-formal and informal education models in Technical Implementation Units (UPT) or Regional Technical Implementation Units (UPTD), as well as other PAUDNI units. This role requires tutors to have good competency standards, which include pedagogical, personality, social, and professional competencies. These standards are not only guidelines in carrying out tasks, but also as benchmarks for the quality of non-formal and informal education in the midst of changing times.

The competencies possessed by tutors are expected to support the creation of meaningful, effective, and relevant learning to the needs of the community. Training for tutors as mentors or program organizers is an important effort to ensure the existence and quality of their roles. This training has major consequences, both in terms of improving the personal quality and professionalism of tutors. In this context, they are not only required to carry out administrative tasks, but also to be able to innovate in learning and to be able to adapt educational models that are in accordance with the development of community needs.

This is important because tutors often deal with students from various backgrounds, so comprehensive competencies are needed to provide inclusive and effective educational services. Along with the changing times, demands for the quality of public services in the field of education that are evenly distributed are also increasing. Tutors as officials who are directly in contact with the community must be able to meet the needs and expectations of students by providing satisfactory services. The quality of service can be achieved by strengthening the internal strengths of the organization, such as the ability to adapt to change, collaboration, and professionalism.

According to Law Number 14 of 2005 concerning Teachers and Lecturers, teachers—including tutors—are expected to have the competence to manage good learning and have a personality that can be a role model for students. Thus, the services provided by tutors not only cover academic aspects but also contribute to the formation of students' characters in accordance with the

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

demands of the times.

Supporting and Inhibiting Factors of Professional Competence of Learning Facilitators

The improvement of professional competencies among tutors is expected to have a positive impact on their performance, especially in carrying out their mentoring duties. These competencies include the ability to manage, develop, and evaluate non-formal education programs effectively. One of the key supporting factors in implementing the competency development program is the availability of competent and committed human resources at every stage of technical orientation, from needs identification to assessment. This commitment creates a conducive work environment where every individual understands their role in ensuring the success of the training. In addition, government policy support, such as regulations and tutor competency standards, serves as an important foundation to motivate them to continuously improve their professionalism. This aligns with the regulations set by the Ministry of Education and Culture, which mandate that competency training must be carried out in a structured and sustainable manner.

Although supported by competent human resources, various obstacles still hinder the improvement of tutors' professional competencies. One of the main challenges is budget constraints, which directly affect the implementation of the technical orientation program. For example, the needs identification phase is often not optimally carried out due to the lack of budget allocation for field surveys or comprehensive data collection. Furthermore, the evaluation of training impact, which should be a crucial step in assessing the success of the program, is often neglected. As a result, the effectiveness of the training cannot be adequately measured, making it difficult to determine corrective actions for future improvements.

Another significant challenge is the gap between the training materials provided and their application in the field. Many tutors struggle to apply the results of their training in their work environment due to a lack of ongoing support and necessary facilities. For example, training related to assessment and the development of non-formal education models often remains theoretical, without real-world implementation. This shows that even though training has been conducted, without supervision and follow-up, the professional competencies of tutors will not significantly improve. The lack of resources such as technology tools and access to up-to-date information also poses a challenge for tutors in carrying out their tasks.

To address these obstacles, an integrated strategy is required, such as increasing budget

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

allocation specifically for training and providing supporting facilities. Additionally, a needs-based approach in designing training programs can ensure that the materials provided are relevant to the tutors' needs in the field. Regular mentoring is also necessary to monitor the implementation of training results. The government and educational institutions can collaborate with various parties, including the private sector, to provide access to technology and current information. In this way, the professional competencies of learning facilitators can be continuously improved, enabling them to contribute optimally to advancing education.

Utilization of technology in everyday life in mapping technology learning competencies

The use of technology in everyday life has become an indispensable need, especially in the era of globalization, which is marked by rapid advancements in Information and Communication Technology (ICT). In the context of education, the integration of ICT has brought significant changes to the way teachers perform their roles. Teachers are no longer just instructors delivering material in a one-way manner but also serve as facilitators, mentors, collaborators, trainers, and learning companions for students. This role allows students to be more active and independent in exploring learning materials through various devices and digital resources.

According to Warsita (2008), the use of ICT-based media in learning not only facilitates the teaching and learning process but also enriches students' learning experiences by engaging both their visual and auditory senses more effectively. As a result, students can enjoy a more interactive, engaging, and relevant learning process that meets the needs of the times. However, the integration of ICT in education is not without its challenges. Teachers are not only required to master technology but also need to be able to develop appropriate learning materials and use technology effectively.

In addition, it is important for teachers to create an active and interactive classroom atmosphere so that students can participate optimally in the learning process. Collaboration in the development of ICT-based materials and information is key to overcoming this challenge. Continuous training programs, collaboration among educators, and support from the government and educational institutions are necessary to ensure that teachers are competent in utilizing ICT. As part of digital literacy, this competence not only enhances the quality of teaching but also equips students with 21st-century skills such as critical thinking, creativity, and teamwork.

Efforts to fulfill the needs of mapping technology learning competencies

To meet the educational needs in the field of Non-Formal Education (NFE), it is essential to

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

provide high-quality and effective program services. One of the key elements in achieving this is the presence of competent, professional, and experienced educators. Skilled educators are not only capable of identifying the learning needs of the community in their area but are also able to design methods and learning techniques that are relevant to local conditions and potential. They can utilize available resources in the environment as part of the learning process, making non-formal education more contextual and directly impactful in improving the quality of life of the community. According to Sukmadinata (2013), educators in non-formal education play an important role as facilitators and innovators in developing programs that are not only need-based but also empower communities to adapt to the dynamics of change.

However, the evolving role of tutors in non-formal education poses its own challenges. The quality control and impact evaluation functions, previously the responsibility of tutors, have now shifted to supervisors. This shift allows tutors to focus more on program implementation as organizers of out-of-school education. This change demands tutors to demonstrate the quality of program services through innovation and effective execution, even though they no longer serve as supervisors.

This underscores the importance of collaboration between tutors and supervisors to ensure the sustainability of quality non-formal education programs. According to Warsita (2008), the role of tutors as the primary implementers of out-of-school education programs is crucial in determining the success of achieving non-formal education objectives, particularly in addressing the diverse and dynamic needs of the community.

Results of the Analysis of the Mapping of Professional Competencies of Learning Supervisors in Facing Digital Learning at PKBM Laskar Pelang

The assessment of the mapping of professional competencies for learning facilitators in facing digital learning was conducted by distributing a questionnaire to the learning facilitators at PKBM Laskar Pelangi. The questionnaire contained a series of statements related to the professional competencies of the facilitators, specifically in utilizing technology in learning. Each answer selected by the facilitators was assigned a predetermined weight, allowing for a quantitative measurement of their digital competency levels. This data serves as a basis for assessing how prepared the learning facilitators are to face the challenges of technology-based learning in the digital era.

The results of the questionnaire analysis show that approximately 70% of the learning facilitators can be categorized as digitally literate. They are able to effectively utilize technology in

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

teaching, including using software, online learning applications, and other digital platforms. This competency indicates that the majority of the learning facilitators have kept up with developments in information and communication technology (ICT) in the teaching and learning process, aligning with Munadi's (2013) view that the use of ICT can enhance the effectiveness and efficiency of learning, making it more engaging for students.

However, around 30% of the learning facilitators still struggle with or are not accustomed to using technology in their teaching. This points to a digital competency gap among tutors. The challenges they face generally include a lack of intensive training, limited technological resources, or psychological barriers, such as a lack of confidence in using new technologies. As noted by Warsita (2008), educators' mastery of ICT requires adequate infrastructure support and ongoing training to build both competence and confidence. To bridge this gap, strategic steps are needed, such as providing specialized training focused on the use of technology in learning, enhancing technological facilities at PKBM, and establishing learning communities among tutors for mutual sharing of knowledge and experiences. With this approach, it is hoped that all tutors can gradually improve their professional competencies and become better equipped to face digital learning. This step also supports the vision of non-formal education to be more responsive to the demands of the 4.0 industrial revolution and the digital era.

CONCLUSION

The Industrial Revolution 4.0 has had a major impact on the education sector, including non-formal education, by demanding adaptation to technological developments. Tutors as educators in non-formal education play an important role in creating responsive, innovative, and adaptive learning in the digital era. To meet these demands, they must have professional competencies that include digital literacy, superior pedagogical, social, and personality skills. Although most tutors at PKBM Laskar Pelangi have shown readiness to utilize digital technology, there are still competency gaps that need to be addressed immediately through ongoing training, increased access to technology, and a needs-based approach. This step not only supports more effective digital learning but also strengthens the existence of non-formal education amidst global change. However, various challenges still hinder efforts to improve the professional competency of tutors, such as budget constraints, minimal supporting facilities, and minimal mentoring. To overcome this, collaboration is needed between the government, educational institutions, and the private sector in providing infrastructure and training that is relevant to the needs of the digital era. With an integrated and sustainable strategy, tutors can continue to develop as agents of change in supporting quality education in Indonesia. This is in line

Journal of Social Science and Education Research
ISSN 3047-5732
Volume 1 No. 6 2024

with the national education goal of creating a society that is intelligent, competitive, and adaptive to global challenges.

REFERENCE

Andriani, L., & Kusuma, E. (2021). Effectiveness of Online Learning Media During the Pandemic. Journal of Education and Technology, 6(3), 90-98.

Arifin, Z. (2019). Transformation of Education in the Era of the Industrial Revolution 4.0. Journal of Education and Culture, 4(1), 22-30.

Astuti, W., & Rahman, F. (2022). Analysis of Digital Competence of Educators in Indonesia. Journal of Educational Sciences, 9(1), 67-75.

Ayu, PM & Gazali Munawir.2021.(The importance of mastering information and communication technology literacy for elementary Madrasah teachers in preparing students to face the industrial revolution 4.0). SCIENTIFIC JOURNAL OF GLOBAL EDUCATION. (2) 1, 87-95.

Eliza, Fiviah et al. 2019. (IMPROVING TEACHER COMPETENCY IN MASTERING INFORMATION AND COMMUNICATION TECHNOLOGY THROUGH ANDROID-BASED LEARNING MEDIA DEVELOPMENT TRAINING). Journal

Electronic Engineering and Vocational. (5)2. 102-109.

Fauzi, I., & Aziz, M. (2021). Digital Literacy for Improving the Quality of Education. Scientific Journal of Education, 5(2), 70-78.

Handayani, T. (2022). Utilization of Technology by Tutors. Indonesian Journal of Education, 8(3), 130-138.

Hermanto, D. (2019). Challenges of Education in the Era of the Industrial Revolution 4.0. Indonesian Journal of Education, 11(2), 45-54.

Isnaini, Astuti.2023.Analysis of Teacher Professional Competence in the Use of Interactive Learning Media (Case Study at SD Muhammadiyah 01 Pencongan). Journal Elementary Education.12 (1), 10-18.

Lestari, Yunda, Erwanto.2020.Digital Literacy in the Era of the Digital Industrial Revolution 4.0.Journal of the Faculty of Teacher Training and Education.71-78.

Munadi, H. (2021). Teacher Competence in Facing Digital Era Education. Journal of Information Technology Education, 3(2), 120-129.

Nugraha, E. (2019). Teacher Readiness to Face the Digital Era. Journal of Education, 5(1), 88-97.

Prasetyo, T. (2021). The Role of Digital Literacy in Increasing Student Creativity. Journal of Education and Culture, 9(1), 57-66.

Purnamasari, A. (2020). Developing Teacher Digital Competence through ICT Training. Journal of Educational Technology and Learning, 4(2), 56-65.

Putra, A. H. (2019). ICT-Based Learning Strategies in the Era of the Industrial Revolution 4.0. Scientific Journal of Educational Technology, 8(1), 37-48.

Rahayu, S. (2021). The Role of Learning Tutors in Digital Learning. Journal of Non-Formal Education, 10(1), 65-74.

Ramli, A. (2020). Utilization of Technology in Distance Learning. Journal of Education and Culture, 7(1), 35-43.

Rosmiati, Zuhri Saputra Hutabarat.2022.EXPERIENCE OF TEACHING PRACTICE PROGRAM, CREATIVITY, AND LOCUS OF CONTROL TO PREPARE TO BECOME A TEACHER IN THE ERA OF INDUSTRIAL REVOLUTION 4.0.JPE (Edutama Education Journal).9(2),149-162.

Sari, D. K. (2020). The Role of Teachers in the Use of Digital-Based Learning Media. Journal of Education and Information Technology, 5(3), 101-110.

Suryadi, A. (2022). The Importance of Technology for Equivalency Education. Indonesian Education Journal, 8(4), 115-124.

Warsita, B. (2020). Digital Literacy: Challenges and Opportunities in Non-formal Education. Indonesian Non-formal Education Journal, 6(2), 150-160.

Wibowo, A., & Nugroho, D. (2021). Utilization of Digital Media in Distance Learning. Indonesian Journal of Education, 10(1), 45-52.

Wibisono, R. (2022). Collaboration in Technology-Based Non-Formal Education. Journal of Educational Sciences, 11(2), 35-43.

Yuliana, R., & Suryadi, M. (2022). Utilization of E-Learning in Non-Formal Education. Journal of Non-School Education, 9(1), 20-28.

Yunda Lestari, Erwanto.2021.Digital Literacy in the Era of the Industrial Revolution 4.0.Journal of Community Service (Abdimas) Baturaja University. 2 (1), 71-77.

Yunita, E. (2021). Empowerment of Learning Tutors through Technology. Journal of Educational Technology, 4(1), 78-86.