

Digital-Based Portfolio Assessment Competence of Early Childhood Educators

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Abstract

In today's era of digital-based learning management, educators must have knowledge and skills in the use of digital technology in teaching and learning activities. This study aims to analyze data on the competence of digital-based portfolio assessment of Early Childhood Care and Education (ECCE) teachers who teach at Kindergarten and Playgroup in the city of Bandung. The research method used was descriptive with a qualitative approach. The research informants included 14 teachers, 3 principals, and 1 vice principal. Data collection techniques used in this study include in-depth interviews, non-participatory observations, documentation studies, and relevant literature. Data analysis techniques used triangulation. The results of the study include: the ECCE educators' competence of digital-based assessment in Lengkong District, Bandung City, are categorized as low and still needs to be improved. Especially related to the knowledge and skills mastery of digital media assessment tools such as Canva and the like, to support the assessment of students' portfolio in schools. This research recommends the digital-based portfolio assessment of ECCE educators competence improvement both through continuous training and also through the establishment of a joint learning forum.

Keywords: *digital based portfolio assessment competence; ecce teacher; ecce online learning*

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Introduction

Faced with the fast increasing era of digital information technology, professionalism has become a requirement of all academic fields, including the Early Childhood and Care Education (ECCE) educator profession (Bahri et al., 2021; Eliza et al., 2022; Nurhayati, 2021). ECCE educators must meet a demand for quality human resources to become educators who can perform their jobs professionally and competently in their respective professions, especially early childhood educators because in Islam every profession must be done professionally (Bahri et al., 2021).

ECCE educators professional today must be able to adapt to changing circumstances. Educators are expected to master technology in the digital age (Novitasari & Fauziddin, 2022; Nurhayati, 2021). In the era of the 4.0 Industrial Revolution, the limited adaptability of ECCE educators especially to technology advancement is a growing source of criticism for the low quality of teaching in many educational institutions (Febianti et al., 2021; Hidayat et al., 2021; Nurhayati & Rakhman, 2017). Obstacles encountered by students, educators, and parents in online teaching and learning activities, including a lack of technological mastery, additional internet quota costs, additional work for parents in assisting children in learning,

communication and socialization between students, educators, and parents are reduced, and educator working hours are not limited because they must communicate and coordinate with parents, other educators, and principals (Musa et al., 2022). The pandemic has also had an impact on the psychology of educators. Educators are being forced to adapt to online learning. Educators' digital competences and chances for educators to gain digital competencies are essential factors in adjusting to online instruction (Bahri, 2021). In addition, educators who are lack professional and competent are increasingly observed in unique areas of an ECCE educator's duties, namely in judging assessment tools or instruments that are utilized as unreliable, with educators utilizing assessment unstandardized tools and instruments in addition to what is in their memories (Nurhayati & Rakhman, 2017). Evaluations performed on a regular basis tend to be shallow and erroneous, and the lack of proper data and administration is another disturbing fact (Setiamihardja, 2012; Sum, 2019).

The benchmark of educational achievement is supported by the competency of qualified educators who are able to encourage pupils by attending to their interests and requirements in accordance with their stage of growth and development (Maulina & Hazilina, 2022; Musa et al., 2022; Rosita et al., 2020). Competence is a skill and knowledge derived from the scope of social life and the scope of work that has been fused, mastered, and can be used to generate value by performing its obligations and functioning effectively (Marienda et al., 2015; Mundia Sari & Setiawan, 2020). Competence is a skill or set of skills that must be acquired by educators, educators, or tutors who define how to perform their profession properly by carrying out tasks and demonstrating good behavior that may be observed by the larger community (Nurhayati & Rakhman, 2017; Ramadani & Syuraini, 2018). In addition to mastering the curriculum, learning materials and procedures, a competent ECCE educator must be devoted to their responsibilities and disciplined in carrying out their responsibilities (Agustin et al., 2020; Marienda et al., 2015). In addition, ECCE educators can carry out their responsibilities effectively if they are able and willing to implement skills in the teaching and learning process by employing methods in accordance with the learning material, objectives, and subjects assigned, as well as if they have mastered assessment techniques (Am, 2018; Saniah & Adriyanti, 2020). It is required to undertake an educational evaluation on short-, medium-, and long-term academic values, attitudes, and behaviors to determine how much feedback an educational institution will provide on the planned educational program (Marienda et al., 2015; Safitri et al., 2019). Assessment is the process of gathering, analyzing, and reporting data obtained from the outcomes of children's learning activities (Nurhayati, 2018; Nurhayati & Rakhman, 2017). Permendikbud No. 137 of 2014 additionally defines the pedagogical competency of a ECCE educator, including the capacity to organize and create assessment reports, process evaluations, and child learning outcomes.

The results of the author's observations from January to March 2022 at several ECCE institutions in Lengkong District, Bandung City regarding digital-based assessments were obtained first through the collection of educator data, which revealed that ECCE educators did not use assessment instruments, but rather immediately concluded the outcomes of their activities. The second mistake was not documenting or archiving the child's learning processes and results. Each of the three ECCE educators has been allowed to utilize digital devices. Based on the aforementioned occurrence, it is urged to conduct a more comprehensive study on the pedagogical competency of ECCE instructors in Lengkong District, Bandung City, regarding how to perform learning assessments for children especially digital-based portfolio learning assessment. The purpose of this study was to determine the competence of ECCE educators in the Lengkong Subdistrict in conducting digital-based portfolio assessments.

Methodology

This study employed a descriptive qualitative research methodology. In this context, descriptive research methods can provide an overview of the situation of the respondents being examined based on real events that occurred at the time of the study. Validity of data is

supported by triangulation of mutually supportive and pertinent data (Moleong, 2018). The subjects of this study were 18 (eighteen) respondents consisting of 14 teachers and 3 principals and 1 vice principal spread across four ECCE institutions. Interviews, observations, field studies, and questionnaires were employed to acquire data for this study. In order to acquire in-depth information, the in depth interviews were conducted. On the basis of classroom experience and theoretical knowledge, field studies are conducted through direct observation at the research site to dig and collect data, followed by data processing and analysis. The gathered data information serves as the basis for the analysis of the research. Data analysis were processed according to Miles & Huberman (2014), in which the four stages of qualitative data analysis are depicted in the diagram in figure 1.

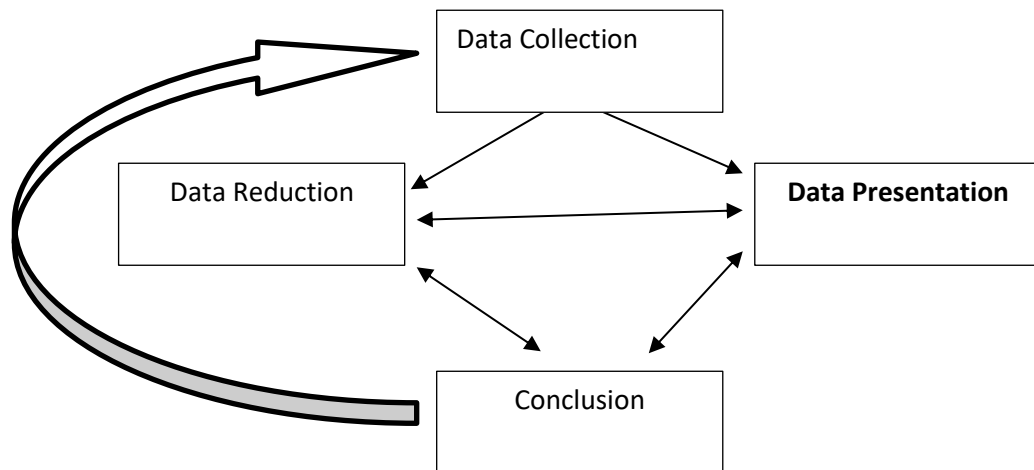


Figure 1. Stages of Qualitative Data Analysis (Sugiyono, 2014)

Findings and Discussions

Findings

Based on the results of data collection through observations conducted from January to July 2022, this study included 18 respondents, including 14 (fourteen) educators and 3 (three) principals and 1 vice principal from 4 ECCE institutions in Lengkong District. The institutions that participated in the study are located in urban regions. When conducting observations on ECCE in the Lengkong District, it was noticed the following elements. The results of observations from the aspects of facilities and infrastructure can be seen from the Figure 2.

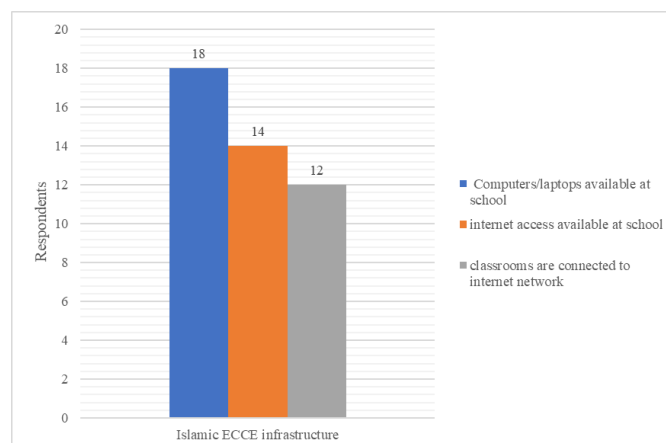


Figure 2. ECCE Infrastructures and Facilities Chart

Source: Empirical Data

The observations supporting the digital competency of ECCE educators in terms of infrastructure and facilities are summarized in Figure 2. 18 (eighteen) respondents stated that their institutions have computers or laptops. This means that of the four ECCE institutions, all of them have computers or laptops. Fourteen respondents from 3 ECCE institutions replied that in their schools they have internet access, while 4 (four) respondents or 1 ECCE institution did not have internet access, and there are only 2 (two) institutions have their classrooms connected to the internet network, while the other 2 (two) institutions for classrooms are not connected to the internet.

Regarding the ECCE's Educators in the Lengkong Subdistrict, 14 samples of observational features pertaining to educators' competency in conducting digital-based evaluations were gathered. The fourteen aspects observed are detailed in Figure 3.



Figure 3. Educators' Digital Based Portfolio Assessment competencies Chart

Source: Empirical Data

From Figure 3, it can be shown that all 18 respondents from four institutions welcome every technological advancement. Fifteen (15) respondents used information technology to complete daily tasks such as creating reports and school assignments; preparing teaching materials and making official papers; creating media and learning materials; performing daily tasks; creating school financial reports and bop; storing children's data; and creating school administration documents. Using information technology, the three first responders cannot fulfill daily chores. One respondent cannot access the internet, but the remaining seventeen can. All respondents were prepared and optimistic to accept and implement portfolio assessments utilizing internet/digital technology. 17 (seventeen) respondents said they were competent of mastering and using IT equipment, while 1 (one) said they were incapable. In addition, fourteen (14) respondents have designed and developed learning assessments in the era of digital technology, but three (3) respondents have not and are merely at the next level. 13 (thirteen) respondents indicated likes and had conducted a digital evaluation, while 5 (five) respondents expressed likes and had never conducted a digitally-based assessments. 2 (two)

respondents have attempted to conduct a digital-based assessment, while 16 (sixteen) respondents have not conducted a digital-based assessment due to limited IT capabilities and devices owned, as well as a lack of and insufficient support from the school foundation. When there is digital-related training, there is a concern of making a mistake and forgoing the opportunity. As a result, 15 (fifteen) respondents were attempting a digital assessment using privately held IT equipment. Similarly, 3 (three) of the respondents have never attempted to create digital assessments. They are also aware of the preparations that must be made before administering digital-based assessments. A total of 17 (seventeen) respondents are already aware of the importance of employing digital-based assessments and when to utilize them. In the meantime, one individual is uninformed of the relevance of digital assessment, when it will be implemented, and what preparations must be made to administer the digital-based assessment. Regarding technology, the school's policy is outlined in Figure 4.

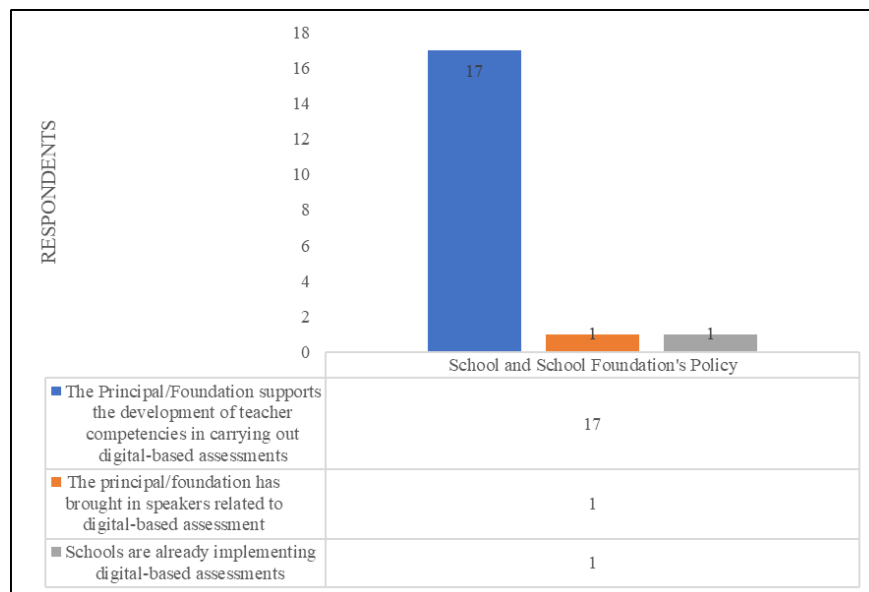


Figure 4. Digital Based Assessment Practice Chart
Source: empirical data

Two of the eleven schools have provided training for educators on the use of technology, whereas the remaining nine (nine) have never utilized it. Two (two) of the eleven (eleven) new schools have incorporated digital-based assessments, whereas the remaining nine (nine) schools have not. 1 (one) institution out of 11 (eleven) new schools regulates the use of the internet in schools, whereas 10 (ten) schools do not regulate the use of the internet in schools. To obtain more precise data, interviews with respondents to gain a better understanding of educators' proficiency in administering digital portfolio exams were conducted. In general, ECCE instructors in Lengkong Subdistrict are quite familiar with utilizing android cellphones or smartphones, although their use is confined to personal necessities such as communicating with family and friends via Whatsapp, TikTok, Facebook, and Instagram.

Teacher Z stated that:

"I just use my cell phone for calling, text messaging, and tiktok. I have never been taught how to conduct a digital portfolio evaluation, and even if it is possible, i have a headache. If i have to create anything, I use a computer or laptop to type. Yes, if there are youngsters, I request their assistances. I cannot use it by my own. I once attempted to study to use technology device, but I was unable to succeed.."

In accordance with Mrs. Z's assertion, the findings of an interview with teacher OS yielded essentially the same conclusion:

"I use my mobile phone for phone calls, WhatsApp, taking photos, playing tiktok, accessing Facebook, and on occasion, Instagram. I hardly use Instagram, however. When accessing the Internet via a mobile device, the majority of users seek out trending news. For making a digital portfolio assessment, I have never. If I open and turn off my computer or laptop, I use it simply to type, however I cannot do it if it's for others. Only a few educators use smartphones for educational purposes in schools."

According to teacher N and NR, they have never provided instructors to train on the use of digital technology in science, especially on digital portfolio assessment through InShoot and videoShow, teachers are able to utilize digital technologies on smartphone to create simple videos. they once assessed child's development and conveyed their findings to the parents. They gained knowledge through YouTube. They stated that it is more convenient to do an assessment using digital tools. It is more readily accepted and viewed by parents, but they are bound by quotas. Due to the lack of WiFi at school, they have to rely on personal quotas thus far.

In addition to interviewing ECCE educators, six ECCE principals were also interviewed. They reported using digital portfolio assessments for the children. They learned how to do digital-based portfolio assessment from YouTube. They utilized Kinemaster and InShoot on android and smartphone mobile phones to create portfolio assessment. In addition, the school principals expressly requested that resource persons should train their teachers in the use of digital technology, particularly in the creation of learning and evaluation videos utilizing the Canva program and other applications. They stated that to promote the digital competency of educators in ECCE schools, facilities and infrastructure should be outfitted with computers or laptops proportional to the number of educators, as well as wifi connectivity.

One of the ECCE school principal said that ECCE educators can conduct digital-based portfolio assessments using both android/smartphone mobile devices and computers/laptops. Moreover, computerized portfolio assessments have been introduced in their schools. During the latest COVID-19 epidemic, he was able to design a digital portfolio after taking a free training on the Canva Online program hosted by the "Great Educator Team." He also encouraged educators in his institution to participate in training connected to digital technology, which they practice together using mobile phones. However, he maintained that schools have not been able to adequately enable facilities and infrastructure in order to increase the digital competence of their educators due to inadequate financial resources.

Discussions

Based on the findings of the study, it is evident that the competency level of ECCE educators in Lengkong District, Bandung City, in conducting digital-based portfolio assessments is still quite low. This demonstrated that the ability of ECCE educators has not been able to adjust to numerous changes, particularly in terms of digital-based portfolio assessments. The usage of technology is a requirement for the abilities that ECCE educators must possess nowadays. It is impossible to separate the use of digital technology from various school administrations, child development reports, learning materials, and media. It can be envisioned a scenario in which an ECCE educator is incapable of utilizing digital technology while their students are more adept. It can be argued that the ECCE educator's digital technology literacy is very low (Novitasari & Fauziddin, 2022). In addition, ECCE institutions in the Lengkong District of Bandung City did not provide digitalization-related training. Moreover, in an era of rapid digitalization, the growth of existing human resources is not necessarily accompanied by and in tandem with digitalization. There are currently students in

ECCE institutions who are able to use digital devices for a variety of school-related purposes, then other educators typically regard these students as having mastered digital technology. The educators encourage themselves with age-based arguments and are careless. Additionally, if the school implements a facilitation strategy by supplying complete computer/laptop devices, giving wifi facilities, and phoning in resource personnel, there will be little gain if the ECCE educator does not wish to improve himself to stay current (Nadila, 2021).

The COVID-19 epidemic has a favorable effect on the adoption of new behaviors, particularly the mastery of digital technological devices. This is highly pertinent and consistent with advancements in the Era of Industry 4.0 and the Era of Society 5.0 (Prayogi & Estetika, 2019). The current generation of educators must unavoidably cope with digital devices that permeate all disciplines, including the education field and all of its components. Educators must have digital technology knowledge and skills (Gordillo et al., 2021; Ranieri & Bruni, 2018; Reisoğlu, 2021). An indicator of the success of a professional and competent ECCE educator is if he is able to adapt to learn and master the development of the times, which from day to day is becoming increasingly complex and changing so rapidly (Taib & Mahmud, 2021). And this must be supported by facilities and infrastructure that can accommodate the needs of ECCE educators in improving their digital competence, for instance, by conducting training to enhance the ability to use digital tools (Musa et al., 2022).

From the research findings it is clear that ECCE educators in Lengkong Subdistrict till have trouble using the internet and digital technology to access information for teaching and assesment. This difficulty is consistent with the findings of Wiwin et.al (2022), Musa et.al (2022), Novitasari and Fauziddin (2022) and Hibana and Surahman (2021). To strengthen the digital competence of ECCE educators, particularly in relation to digital-based portfolio assessments, training and a willingness to change are unquestionably required, especially for those associated to digital-based portfolio assessments. In other words, ECCE educators must have adequate competence in using technology to keep up with the times, or ECCE educators must be technologically literate (Reza & Eliza, 2021) and in its use for positive things such as planning, implementing, and evaluating learning to maximize growth and early childhood development (Novitasari & Fauziddin, 2022).

Conclusion

Based on the findings of this study, it can be concluded that in order to improve the competence of ECCE educators in conducting digital-based portfolio assessments, it is necessary to employ the appropriate strategies, one of which is a facilitative strategy involving the provision of complete digital technology-supporting facilities and infrastructure, along with digital technology-related training. Nevertheless, these facilitative strategies and training won't be of any value if the ECCE educators are not ready to modify or upgrade their competence. ECCE educators must be able to modify their thinking, upgrade, and adapt to the digital era to contribute to or become agents of change in terms of digital technology, which is also permeating the education sector. There is also a need for a forum or activity that may support and meet the needs of ECCE educators to improve their digital-based assessment skills as the study founds that digital-based assessment competence of the ECCE educators still need to be improved. In this era of digitization, it is crucial that ECCE educators adopt a mindset that accepts and embraces positive change so that their motivation to become competent and adaptable educators can grow. Neither the findings nor the added value provided by the research can be stated to be flawless, and it is recommended that additional research can be conducted on the competency of early childhood educators in conducting digital-based portfolio assesments.

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