

# *Use of the E-Raport Application in Improving Preschool Educators' Digital Literacy Competency*

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**Abstract**— It is hoped that the use of technology, especially the e-Report application, will open up opportunities to increase the understanding and application of digital literacy among ECCE educators. By focusing on the question of how implementing the e-Report application can enrich the digital literacy competencies of ECCE educators, this article explores various scientific literature to identify the benefits, challenges and implications of using this technology in the context of early childhood education. Through in-depth literature analysis, this article details the positive impacts that may result, such as increased efficiency, monitoring children's progress, and the integration of digital literacy in the teaching process. On the other hand, challenges related to policy, infrastructure and lecturer training are also considered to provide a balanced picture.

**Keywords:** *Digital Literacy, E Report Application, ECCE Educators*

## III. INTRODUCTION

In carrying out their work, ECCE educators have main tasks ranging from planning learning, carrying out learning activities, to conducting assessments, evaluations, and reporting children's progress to parents (Indonesia, 2014a). In the implementation of the Merdeka Curriculum, learning in early childhood includes intracurricular learning, namely programmed play activities and habits carried out to optimize children's development achievements, be it religious values and character, identity, as well as literacy and STEAM. Use As well as Co-curricular Learning in project learning activities to strengthen the Pancasila student profile, which is usually abbreviated as P5 to strengthen the dimensions of the Pancasila Student Profile. The learning program is said to be successful if the students experience development during and after the learning is carried out. So that children's development can be known by parents and educators, communication is necessary. One effort to communicate child development between educators and parents is through child development reports.

Early childhood development reports do not consist of purely quantitative data but qualitative data. Educators narrate the child's development that has been achieved, what has not been achieved, and recommend stimulation that needs to be continued through reports on this development (Suminah et al., 2015). So far, ECCE teachers have mostly prepared narrative reports by handwriting. Then, with the current development of computer technology, the competency of ECCE educators is expected to be able to utilize information technology in carrying out their duties and work (Sugiarti, 2013), accompanied by the use of the 2013 ECCE curriculum, child development reports need to be prepared using computer technology. The child's development report must also be accompanied by photos of activities that represent the child's developmental achievements as authentic evidence.

The presence of digital technology needs to be accompanied by knowledge and understanding regarding the use of digital technology itself from the perspective of teachers, parents and children (Kuntarto & Prakash, 2020). Teachers are the first factor determining the success or failure of efforts to improve the quality and innovation of education at the school level, especially in early childhood education units. Early Childhood Education (ECCE) teachers are professional educators with the basic tasks of educating, teaching, guiding, directing, training, assessing and evaluating early childhood children aged 0-8 years. The teacher's role in learning focuses on construction, search and discovery; Previously, education was defined as something that was one-way, requiring the delivery of information by an expert and the acquisition of prepared knowledge by students (Zulaiha, 2013). PAUD teachers must be able to adapt learning strategies to current situations and conditions. As explained by Raharja & Kusumawardani (2021), PAUD teachers must quickly adapt to various changes and applicable policies so that children continue to receive the best educational services so that learning goals are achieved and children will grow and develop optimally. To support the professionalism of early childhood educators, teacher mastery of information technology is very necessary, this is in line with the learning implemented in the scope of early childhood education in accordance with the demands of the Merdeka curriculum.

The use of digitalization in the learning process to the process of reporting children's development achievements is intended to make it easier for teachers to provide quality learning for early childhood children in ECCE. Therefore, digital literacy is very necessary for teachers and prospective teachers to optimize early childhood development. Besides that, early literacy skills (emergent literacy) are important abilities that children must achieve before they enter the school phase (Hidayatullah et al., 2021).

Digital literacy is the knowledge and skills to apply digital media, communication tools or networks in finding, evaluating, using, creating information and utilizing it in a healthy, wise, intelligent, careful, precise and law-abiding manner in order to foster communication and interaction in everyday life. . Digital literacy can also be interpreted as an individual's ability to apply functional skills on digital devices so that he or she can find and select Digital Literacy Analysis of Educators in Early Childhood Education information, think critically, be creative, collaborate with others, communicate effectively, and remain attentive. electronic security as well as the developing socio-cultural context (Payton & Hague, 2010).

In its development, digital literacy is defined as the practice of communicating, associating, thinking and becoming connected with digital media (Jones & Hafner, 2021). Digital literacy is of course also influenced by several factors including; a) use of online media, b) academic grades, c) role of parents/family, and d) reading intensity (Nai Cheng, 2016). Digitalization can help ECCE teachers prepare and present interesting and fun learning according to the needs of children in ECCE. According to Huda (2017) there are seven advantages of information technology and computers in the learning process: a) as equipment to support knowledge construction; b) as a means of accessing necessary information; c) as social media to support learning (collaboration) and discussion; d) as an intellectual partner to support students; e) as a means of improving the quality of education; f) as a means of increasing the effectiveness and efficiency of the learning process; and g) as a means of making it easier to achieve educational goals.

Based on the explanation above, the use of the E Report Application has strength, attractiveness and uniqueness in its application which can enable preschool educators to prepare systematic and automatic progress reports as a form of progress in digital technology. So this research takes a literature review to see what the components of the E Report Application are in digital literacy. Also see whether the E Report Application is able to improve the digital literacy skills of ECCE educators

### III. METHODS

The research was conducted using a literature review method. A literature review has advantages, this method is not a positional article, in the sense that the researcher only selects data that supports his views (Efron & Ravid, 2019), but it also does not mean presenting all data in the field clearly. According to Boote & Baile in Efron & Ravid (Efron & Ravid, 2019) a literature review should present a fresh and creative perspective that contributes to thinking and understanding of the topic being researched. The instrument of literature review research is the researcher himself (Efron & Ravid, 2019), to be a good instrument the researcher must be careful and careful in choosing data sources. A data source contains many research articles, to help researchers select good articles and analyze the data so that it is not biased, a tool is needed in the form of a selection table. Researchers can limit their search by using saturation points or repeated information (Efron & Ravid, 2019). Guidelines for collecting, recording and analyzing data in this research using guidelines from Efron and Ravid. The data sources in this research are 10 previous research articles that have been published so that they have reliable data.

### III. RESULTS AND DISCUSSION

The results of this research were obtained through a literature review study which analyzed 5 research and community service articles about the E-Raport ECCE Application, 3 research articles about Early Childhood Development Reporting and 2 research articles about the digital literacy of ECCE educators. This data source was obtained either through an electronic library. The electronic library accessed is Google Scholar, with the help of Boolean operators which are useful for expanding and narrowing searches. The research articles used in this research are articles with a period of the last three years. However, there is one article published in 2017. This article was still analyzed on the grounds that there was a primary data source and the following results were obtained.

#### *Utilization of the ECCE E-report Application*

In the article with the title Implementation of Assessment Based on the My Report Card Application in Kindergarten by Rahmat Hamdani, Rabiatal Adhawiyah, Amalia Muchsinun, Harisa US, Salamah, Ity Rukiyah (2023) using the Miles and Huberman analytical model research method, namely flowing analysis by going through several stages, starting from data collection, data condensation, data display, and finally conclusion. Current technological advances can facilitate assessments carried out by teachers in assessing student learning outcomes. With this online-based report, student learning achievement data is presented more quickly, and documentation of children's development achievements is stored well online. Apart from the advantages, there are also disadvantages to this application, namely that it must be connected to a stable internet network.

Research article entitled Facilitating Reporting on Kindergarten Children's Development Through Application Programs by Bambang Harmanto, Dian Kristiana (2017) with the development research approach method. With the breakthroughs offered, kindergarten teachers can find it easy to describe their assessment reports. And by writing the criteria that are available in the application, teachers who have limitations in composing sentences feel helped. The time spent filling out reports becomes more efficient and the appearance is neat. Loss of reports or errors in writing can be anticipated by reprinting the document recap that has been saved. It is hoped that services to students will no longer be disrupted with assistance in automatically writing assessment results reports

ECCE 1.0 e-Report Prototype for Compiling Early Childhood Development Reports written by Prima Suci Rohmadheny, Intan Puspitasari, Miftahurrahma Rosyda, Avanti Vera Risti Pramudyani 1(2022). Using the R&D method, modification of the Borg & Gall model to the stage of expert validation &

limited testing on users. A total of 24 Aisiyiah ECCE teachers were involved in the limited trial. Data was collected using a user response questionnaire and analyzed descriptively.

The result of this research is a prototype of the Aisiyiah ECCE e-Report product Version 1.0 based on Ms. Excel has feasibility in terms of material of 0.833-1.000 and 0.5 - 1.000 in terms of computer technology based on expert validation assessments, while the results of limited trials show that this product is well received, easy, practical and efficient. However, several technical improvements are still being made to perfect it.

Sardiarinto, Gunawan Budi Sulisty, Lina Ayu Safitri, Sri Kiswati (2020). Using the waterfall method starts from needs analysis, then continues with system and software design, program code creation and testing. This research produces a child development assessment application using web-based technology which is able to simplify the process of assessing child development by ECCE teachers and is able to produce fast, precise and accurate reports.

Development of a ECCE Learning Assessment System through the SAKA Application written by Enda Puspitasari, Ria Novianti, Zulkifli N (2022) with this research method is development research by Borg and Gall. Limited trials were carried out at Assalaam Kindergarten Air Molek, and data analysis using tests. The development of this assessment application is based on Android and is named SAKA (Simple Assessment Comprehensive Authentic), which contains assessment procedures in accordance with the 2013 curriculum starting from carrying out daily assessments, weekly, monthly and semester assessment summaries. Based on a feasibility test by experts, this application was declared very feasible with a percentage of 95.87%. From the results of limited trials, it is known that there are differences before and after Assalaam Kindergarten teachers use assessment using the SAKA application, namely manually it is still not good because it is less effective and efficient, while the assessment carried out using the SAKA application is very good.

#### *Child Development Report in the Independent Curriculum Era*

In an article entitled Assessment of Children's Development in the Era of Independent Learning (Mardiyana et al, 2023), a qualitative research method with a phenomenological type is used which aims to obtain in-depth data regarding curriculum changes that can change the assessment of children's growth and development. And the result is PH and SK Kindergarten assessment activities starting from the planning to reporting stages through three types of assessment, namely diagnostic, formative and summative. The assessment instruments include checklists, anecdotal notes, work results and series of photos. The reporting process to parents is carried out so that parents can find out about their child's developmental achievements. Photo series is the most difficult instrument to do.

Article title Early Childhood Development Assessment Trainer Training Merdeka ECCE Curriculum (Andepi et al, 2023) The service program "Training of Trainer Assessment of Early Childhood Development in the Merdeka ECCE Curriculum" is designed comprehensively with preparation stages including literature study, material preparation and training tools. So this training provides an effective solution in improving the quality of ECCE education, with suggestions for continuing similar training and ongoing monitoring to support ECCE PTK in applying the knowledge and experience gained.

#### *Digital Literacy of ECCE Educators*

The article entitled Analysis of Digital Literacy of Educators in Early Childhood Education (Novitasari, et al. 2022) This research method is descriptive research using a quantitative approach. The population includes all ECCE teachers at 8 institutions in Gugus Mawar, Rumbai Pesisir District, totaling 30 people. The sampling technique uses a total sampling technique which includes all ECCE teachers in Gugus Mawar, Rumbai Pesisir District. The Influence of Digital Literacy on Teacher Pedagogical Competence. The results of the research show that the average digital literacy score for

ECCE educators is in the quite good category. Thus, the digital literacy competency of teaching staff in ECCE must be improved so that they can better utilize digital devices in learning to optimize the growth and development of early childhood.

In an article written by (Putra, A.et al. 2023). Entitled The Influence of Digital Literacy on Teacher Pedagogical Competence. with Methods

The research used is quantitative research with a correlation analysis design. and the instruments used consist of pedagogical competencies and digital literacy. The data collection technique used instruments in the form of questionnaires and analyzed using descriptive and inferential statistical analysis. The research results showed that there was a very significant positive influence between digital literacy variables on pedagogical competence with a low strength of relationship ( $r = 0.261$   $p < 0.01$ ). The existence of a positive relationship means that the higher the digital literacy, the higher the pedagogical competence.

### III. CONCLUSION AND RECOMMENDATION

The E Report application in the era of the independent curriculum with various digital components is able to increase the digital literacy competency of ECCE educators. The existence of similarities and differences in the E Report Application both in the 2013 curriculum era and the curriculum will certainly create challenges for teaching staff to further improve their mastery of digital literacy. The E Report application throughout Indonesia needs to be developed in accordance with the needs and learning outcomes that have been determined by each educational unit. This can indirectly increase the independence and mastery of digital literacy competencies for ECCE Educators to be more optimal.

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