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Aktualisasi Permainan Edukatif Digital Pada Anak Usia Di Di Igtki Tasikmadu Karangnyar

Mukti Widayati[1], Farida Nugrahani[2], Benedictus Sudiyana[3], Nurnaningsih[4], Veronika Unun Pratiwi[3]
Korespodensi: Mukti Widayati

[1]Program Pascasarjana, Universitas Veteran Bangun Nusantara
E-mail: muktiwidayati65@gmail.com

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Abstrak: Urgensi pengabdian ini terletak pada perkembangan teknologi digital yang telah mengubah pola belajar anak, termasuk pada anak usia dini. Banyak pendidik yang belum sepenuhnya memanfaatkan teknologi dalam proses pembelajaran. Pengabdian kepada Masyarakat ini difokuskan pada peran guru dan keterpahaman guru dalam penerapan dan penggunaan media digital dalam pembelajaran di TK di lingkungan IGTKI Tasikmasdu Karanganyar. Metode yang digunakan berupa deksriptif kualitatif dengan tahapan yang sistematis mulai dari sosialisasi kepada beberapa sekolah TK, pelatihan aktualisasi permainan edukatif digital, penerapan teknologi dalam penggunaan permainan edukatif digital, pendampingan dan evaluasi, diakhiri keberlanjutan program pelatihan aktualisasi game edukatif digital ABC Kids pada IGTKI Tasikmadu Karanganyar. Pelaksanaan Pengabdian kepada Masyarakat terdiri dari beberapa tahap yaitu observasi, sosialisasi; pelatihan; dan evaluasi. Data diperoleh dengan Teknik observasi dan penyebaran angket. Penguatan kemampuan literasi di usia dini melalui pendekatan yang menarik dan inovatif berdasarkan aktualisasi game edukatif digital ABC Kids menjadi sangat penting untuk mempersiapkan anak menghadapi tantangan global melalui peningkatan kemampuan membaca dan berhitung. Pelatihan ini bertujuan untuk memberikan pemahaman dan keterampilan kepada para pendidik di IGTKI Tasikmadu Karangnyar mengenai pemanfaatan permainan edukatif digital ABC Kids sebagai media pembelajaran yang menyenangkan dan efektif dalam meningkatkan budaya literasi baca hitung pada anak usia dini. Hasil pengabdian menunjukkan dampak yang positif dalam pembelajaran baik bagi guru maupun anak dengan hasil survey sebagai berikut 82% guru paham, 90% guru terampil dalam mengoperasionalkan, 87 guru telah mengimplementasikan, dan 88% hasil pembelaran memenuhi KKM.

Kata Kunci: permainan edukatif, digital, anak usia dini

***Abstract**: The urgency of this service lies in the development of digital technology that has changed children's learning patterns, including in early childhood. Many educators have not fully utilized technology in the learning process. This Community Service is focused on the role of teachers and teachers' understanding in the application and use of digital media in learning in kindergartens in the IGTKI Tasikmasdu Karanganyar environment. The method used is in the form of*

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qualitative descriptive with systematic stages starting from socialization to several kindergarten schools, training on the actualization of digital educational games, the application of technology in the use of digital educational games, mentoring and evaluation, ending with the sustainability of the ABC Kids digital educational game actualization training program at IGTKI Tasikmadu Karanganyar. The implementation of Community Service consists of several stages, namely observation, socialization; Training; and evaluation. Data was obtained by observation techniques and questionnaire distribution. Strengthening literacy skills at an early age through an interesting and innovative approach based on the actualization of ABC Kids digital educational games is very important to prepare children to face global challenges through improving reading and numeracy skills. This training aims to provide understanding and skills to educators at IGTKI Tasikmadu Karangnyar regarding the use of ABC Kids digital educational games as a fun and effective learning medium in improving literacy culture in early childhood. The results of the service showed a positive impact on learning for both teachers and children with the following survey results 82% of teachers understood, 90% of teachers were skilled in operationalizing, 87 teachers had implemented, and 88% of the results of the presentation met the KKM.

***Keywords**: educational games, digital, early childhood*

Introduction

Community service will be carried out at partner locations aimed at the IGTKI Tasikmadu Karanganyar Early Childhood Education Institution. IGTKI (Indonesian Kindergarten Teachers Association) Tasikmadu Karangnyar is an organization engaged in early childhood education (PAUD) which has members consisting of teachers at the kindergarten (TK) level and other Early Childhood Educators. The location of IGTKI Tasikmadu is located in Karangnyar, Central Java, which has the characteristics of a rural area with the majority of the population working as farmers, traders, and informal sector workers. The existence of partners in this research and service focuses on the IGTKI Tasikmadu Early Childhood Education Institution which plays an important role in improving the quality of early childhood education in the region. IGTKI has great potential to become an agent of change in improving the quality of children's education in this region. The organization consists of about 70 teachers spread across various kindergartens

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(TK) in the Tasikmadu area. Although most educators already have an adequate educational background, most still do not make optimal use of technology in learning. This affects the interest in participating in the learning process at school as the basis for the formation of a literacy culture of reading and numeracy (1,2).

Geographically, Tasikmadu Karangnyar is an area located in a mountainous area with good road access to the city center, but sometimes internet access and information technology are still limited in some rural areas. Most of the people in this region are farmers and laborers who work in the agricultural and trade sectors. Educational conditions that affect the future of the family start from early childhood education. The majority of people send their children to kindergarten and family planning in the Tasikmadu area according to the location closest to home. It is hoped that people will have better access to education and be ready to face global challenges (3,4). The people of Tasikmadu generally have a very thick culture of mutual cooperation, which can be social capital in the implementation of the ABC Kids digital educational game actualization training program at IGTKI Tasikmadu Karanganyar. However, the challenge faced by the community is limited access to educational technology that can support the learning process, especially among early childhood children. This is motivated by an uneven educational history, the potential to develop technology-based resources in the era of globalization is also not possible. Therefore, the community chose to anticipate this situation by alternatively choosing to send their children to kindergarten and family planning in the Tasikmadu area under the auspices of IGTKI. Although there are some schools that have begun to integrate technology in learning, this is not even and most are still using conventional learning methods. This situation is the basis for the implementation of this research and service.

At the Early Childhood Education level in Tasikmadu, the dominant learning method used is the conventional method that relies more on physical teaching aids and print media. Many teachers still have difficulty integrating technology in learning, although on the other hand, early childhood children are currently exposed to digital technology quite rapidly through various platforms and applications available. Education in this region faces major challenges in improving the quality of children's literacy (5,6). Most children in these regions do not get enough access or support to develop their literacy skills. This literacy education is very important, considering that early childhood is a golden period in their cognitive, language, and social development. Therefore, a more innovative approach is needed in teaching literacy by utilizing the development of digital technology.

Some of the main problems faced by IGTKI Tasikmadu and the local community related to early childhood education are the limited use of technology in learning which is characterized by the majority of teachers who are not familiar with the use of digital technology in the learning process, especially in the use of ABC Kids digital educational games. In addition, there are limitations of devices and internet access that are obstacles to the optimal use of technology.

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The limitations of teachers' skills in using educational digital media are characterized by the phenomenon that teachers have an understanding of the importance of technology in education, but educators still find it difficult to operate digital devices and utilize them in interactive learning. Low literacy culture in early childhood Although most of the regions have begun to recognize letters and numbers, their numeracy skills are still relatively low when compared to the expected standard (7,8). This is due to the lack of activities that prioritize the development of literacy in a fun and interesting way at school. The lack of training and mentoring for teachers has resulted in teachers in this region urgently needing training that suits their needs, especially related to the use of digital educational games that can improve the quality of early childhood learning (9,10). This step is sought to meet and develop educational potential by utilizing technological and information advancements. Based on the analysis of the situation and conditions at partner institutions, a gap was found, that the reality reflects the lack of technology-based education at the early childhood level (11,12). This training program has great urgency in improving the quality of early childhood education in Tasikmadu Karangnyar.

In order to answer these needs theoretically and practically, this training will focus on the use of ABC Kids digital educational games to improve reading and numeracy literacy in early childhood. Digital educational games can be a very effective means because in addition to being fun, they can also accommodate various children's learning styles and provide a more interactive and meaningful learning experience in accordance with the early childhood thinking development process (7,13). The use of technology in early childhood learning is expected to have a positive impact, both in mastering reading and numeracy literacy skills, as well as in increasing children's creativity and problem-solving skills which are marked by meticulousness in reading and counting without experiencing significant difficulties (14,15). By using the ABC Kids digital educational game application, teachers will be able to teach basic reading and counting concepts in a more interesting and easy-to-understand way for children.

The expected goal of completing the service research at IGTKI Tasikmadu Karanganyar is that teachers at IGTKI Tasikmadu have a high commitment to improving the quality of education. Teachers have openness to innovation even though there are limitations in terms of facilities, teachers at IGTKI Tasikmadu are open to various innovations and training that can improve their skills, especially in the use of educational technology in the ABC Kids digital educational game. With this potential, the planned training will greatly contribute to the development of early childhood education in Tasikmadu Karangnyar, which can ultimately help improve the literacy culture of early childhood in the region which will later become a supporting agent for the fulfillment of superior and creative human resources in the future.

Method

Research methods and community service related to actualization training digital based ABC Kids educational games to improve literacy culture reading and numeracy at IGTKI Tasikmadu Karanganyar are carried out in various stages that are systematically designed including; observation, socialization; Training; and evaluation. The distribution of the questionnaire was carried out to find out the understanding, use skills, implementation of Kids educational game media and evaluation. The observation stage is carried out to identify the

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learning media that has been used. The socialization stage aims to provide an initial understanding to partners about the goals, benefits, and implementation of digital educational game actualization training programs. The Training Stage is at the core of this program, aiming to improve teachers' understanding and skills in utilizing ABC Kids digital educational games in early childhood. The evaluation stage was carried out to determine the understanding, implementation, and impact of digital media utilization in learning in kindergartens in the IGTKI Tasikmadu environment. The method used was the distribution of questionnaires with relevant questions as well as the criteria of SS (Strongly Agree), S (Agree), CS (Strongly Agree), TS (Strongly Disagree), and STS (Strongly Disagree).

Result

This socialization activity involves delivering program information to all Kindergarten partners/teachers through online meetings. This activity is carried out with the role of competent human resources from the Postgraduate lecturer of the Master of Indonesian Language Education at Veteran Bangun Nusantara University who have expertise in the field studied in this research and service activity. The steps in the socialization stage include; Coordination with partners from several schools under the auspices of IGTKI Tasikmadu Karanganyar. The initial meeting with the management of IGTKI Tasikmadu was held to explain the details of the ABC Kids digital educational game actualization training program to improve the literacy culture of counting and reading in early childhood. The discussion focused on the schedule of activities, technical needs, and teachers' expectations. Presentation of the purpose and benefits of ABC Kids' digital educational game actualization training program to improve literacy culture of numeracy and reading in early childhood. An explanation of the importance of using digital media in the ABC Kids digital game in improving literacy in early childhood is delivered in a simple way so that it is easy to understand. Receiving suggestions and input from partners at research and community service sites. IGTKI teachers and administrators are actively involved in providing feedback and agreeing on the implementation of the program.

The steps of the training program include theoretical material. Teachers were given material on the concept of digital literacy in early childhood, the importance of digital educational games such as ABC Kids in improving reading and numeracy skills, and the principle of choosing learning media that is appropriate for children's age. Direct practice with the ABC Kids digital educational game website system by installing and operating the ABC Kids, demonstration of application features for reading and counting activities, and simulation of learning scenarios using applications. Group discussion on ABC Kids digital educational game actualization training to improve literacy culture of numeracy and reading in early childhood. Teachers are grouped to discuss and share ideas on how best to integrate digital media into learning. Teachers actively participate in hands-on practice and group discussions, and are motivated to ask questions and provide suggestions.

The steps taken in the process of applying technology based on research and service include, the integration of the ABC Kids digital educational game application in early childhood learning. Teachers develop learning plans based on the ABC Kids application. The preparation of the learning plan is directed to apply digital technology in helping children learn to read

letters, spell words, and perform simple counting operations. Data collection on the implementation of the ABC Kids digital educational game actualization training program to improve literacy culture of counting and reading in early childhood. Teachers are asked to document teaching and learning activities that use applications, such as photos, videos, or reflection notes that are sustainable. Teachers are fully responsible for the implementation in the classroom, supported by the implementation team to monitor progress and provide technical assistance.

Table 1. Results of Observation of ABC Kids Learning Media Understanding

ASPECTS	YIELD (%)				
	SS	S	CS	TS	STS
I understand the basic concept of ABC Kids learning media	32	50	18	0	0
I know the benefits of using ABC Kids media in early childhood learning	41	41	18	0	0
I get operate ABC Kids media well	27	50	23	0	0
ABC Kids media is easy to integrate with the learning methods I use	27	59	14	0	0
Average	31,75	50	18,25	0	0

From the survey conducted, the results of Agree got the most average with a percentage of 50%, the average respondent answered Strongly Agree 32%, and Quite Agree got an average result of 18%.

Table 2. ABC Kids Media Usage

ASPECTS	YIELD (%)				
	SS	S	CS	TS	STS
I feel interested in using ABC Kids media in the learning process	23	68	9	0	0
The use of ABC Kids makes learning more engaging for children	27	64	9	0	0
I believe that ABC Kids media can improve children's learning outcomes	18	77	5	0	0
I am willing to continue learning and develop ability to use ABC Kids	14	68	18	0	0
Average	20,5	69,25	10,25	0	0

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From the four diagrams above, it can be concluded that the majority of respondents answered Yes with an average percentage of 70%. Strongly Agree gets an average of 20% answers, and Strongly Agree an average of 10%.

Table 3. Application of ABC Kids Learning Media in Learning

ASPECTS	YIELD (%)				
	SS	S	CS	TS	STS
I have applied ABC Kids media in teaching and learning activities in class	14	68	18	0	0
Kids show enthusiasm when I use ABC Kids media	23	63	14	0	0
ABC Kids Media helped me in explaining the teaching material more effective	18	73	9	0	0
I experienced ease in accessing and downloading contents from the ABC Kids	18	73	9	0	0
Average	18,25	69,25	12,5	0	0

The results of the survey in the statement "The Application of ABC Kids Learning Media in Learning" obtained the following average results: Strongly Agree 18%, Agree 69%, and Fair 13%.

Table 4. Evaluation and Impact of ABC Kids Media Use

ASPECTS	YIELD (%)				
	SS	S	CS	TS	STS
ABC Kids Media increases children's active participation in learning	23	68	9	0	0
ABC Kids Media makes it easier for teachers to create interactive learning	23	68	9	0	0
I recommend the use of ABC Kids media to other teachers in my PAUD district	18	64	18	0	0
Average	21,33	66,66	12	0	0

From the graph above, the statement "Evaluation and Impact of ABC Kids Media Use" can be summarized as follows: Strongly Agree gets an average of 21%, Agree gets an average of 67%, and Strongly Agree 12%.

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Discussion

Based on the results of a survey conducted in Community Service (PkM) activities at IGTKI Tasikmadu District, Karanganyar Regency, it can be concluded that kindergarten teachers in the environment show a positive attitude towards the use of ABC Kids learning media. The majority of respondents stated Agree at 64%, followed by Strongly Agree at 23%, and Strongly Agree at 13%, for various statements that include understanding, attitudes, application, and the impact of the use of these media in early childhood learning. The findings of this survey show that ABC Kids learning media has the potential to be an effective and interactive tool in the early childhood learning process, and deserves to be recommended for wider use in other PAUD institutions.

Daftar Referensi

Septarianto TW, Subyantoro S. Development of a Book for Enrichment in Writing Observation Report Texts Containing Local Wisdom for High School Class X Students. Seloka J Educator of English Language and Literature. 2016; 5(2):216–24.

Sasmita H. Application of Goal Programming Method for Solving Production Cost Optimization Problems and Sales Targets [Internet]. Vol. 1, KERNEL: Journal of Innovation Research in the Field of Informatics and Informatics Education. Adhi Tama Institute of Technology Surabaya; 2021. pp. 82–93. Available from: http://dx.doi.org/10.31284/j.kernel.2020.v1i2.958

Sharma G, Bosch C, Obelleiro G. Exploring Pedagogical Practices to Cultivate Wisdom, Courage, and Compassion as Key Tenets of Global Citizenship: A Qualitative Study [Internet]. Vol. 25, International Journal of Multicultural Education. Eastern University; 2023. p. 45–65. Available from: http://dx.doi.org/10.18251/ijme.v25i2.3403

Sumargono S, Sinaga RM, Ariyani F, Rini R. Studies of multicultural education in three last decades: global trends and future directions in educational researches [Internet]. Vol. 13, International Journal of Evaluation and Research in Education (IJERE). Institute of Advanced Engineering and Science; 2024. p. 2957. Available from: http://dx.doi.org/10.11591/ijere.v13i5.28482

Zainuddin M, Saifudin A, Lestariningsih L, Nahdiyah U. Development of Big Books with the TPACK Model in Improving Elementary School Children's Writing Literacy Skills. Brilliant J Ris and Conceptual. 2022; 7(3):770.

Rigianti HA, Situmorang F. The Effect of English Literacy Programs on English Language Skills in Elementary School Students [Internet]. Vol. 4, System-Among : Journal of Elementary School Education. Current Insight; 2024. pp. 27–34. Available from: http://dx.doi.org/10.56393/sistemamong.v4i1.2111

Anggita IS, Yusuf H, Naimah N, Putro KZ. Guidelines for Teachers' Digital Literacy to Improve Early Childhood Cognitive Abilities. J Obs J Early Childhood Educator. 2022; 6(5):4697–704.

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Pengabdian
Teknologi Tepat Guna
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https://jurnal.usahidsolo.ac.id/index.php/TTG/

Hidayatullah S, Syihabuddin S, Damayanti V. Analysis of Literacy Media Needs Based on Ddgital in Early Childhood. J Obs J Early Childhood Educator. 2021; 6(3):1190–6.

Yansyah Y, Hamidah J, Ariani L. Development of Bilingual Big Book Storytelling to Improve Early Childhood Literacy. J Obs J Early Childhood Educator. 2021; 6(3).

Mahmudah S, Widayati M, Purbosari PM. Improving Science Literacy Skills and Learning Outcomes through the Problem Based Learning Model. Educ J Educ Res. 2021; 4(4).

Ati AP, Widiyarto S. Language Literacy in Increasing Reading and Writing Interest in Bekasi City Junior High School Students. Baseless. 2020; 9(1):105–13.

Ramli RB, Taufik, Musriani, Hajar I, Kaharuddin. Students' Ability to Tell Stories Using Digital Literacy-Based Podcast Applications in Speaking Skills Course [Internet]. Vol. 8, Journal of Onoma: Education, Language, and Sastra. Universitas Cokroaminoto Palopo; 2022. p. 808–17. Available from: http://dx.doi.org/10.30605/onoma.v8i2.2070

Supriyaddin S, Prayudi A, Putra A. Development of Android-Based Dompu Local Cultural Numeracy Literacy Educational Game [Internet]. Vol. 4, Ainara Journal (Journal of Research and PKM in the Field of Education). Ainara; 2023. pp. 130–5. Available from: http://dx.doi.org/10.54371/ainj.v4i3.282

Mardhotillah H, Rakimahwati R. Development of Android-Based Interactive Games to Improve Early Childhood Reading Skills. J Obs J Early Childhood Educator. 2021; 6(2):779–92.

Djatmika GH. The Influence of Practical Lecturer Competence and Innovation on Improving Soft Skills and Hard Skills in Early Children. J Obs J Pendidik Anak Usia Dini. 2023; 7(2):1836–46.