

A Study of Digital Media Content Needs for Early Childhood Education on Balikpapan Tourism

Anggis Rizky Wiyaringtyas¹, Hesti Rosita Dwi Putri², Nursanti Novi
Arisa³

^{1,2,3} Institut Teknologi Kalimantan, Balikpapan, Indonesia

e-mail: *¹Anggis.wiyaringtyas@lecturer.itk.ac.id,

²hesti.rosita@lecturer.it.ac.id, ³Nursanti.novi@lecturer.itk.ac.id

ARTICLE INFO

ABSTRACT

Article history:

Received: November 24, 2025

Accepted: January 11, 2026

Available online on:

January 18, 2026

Keywords:

Early Childhood; Local Wisdom;

Interactive Media; Digital

Learning

Copyright ©2026 by Authors.

Published by Universitas

Muhammadiyah Tangerang

This study aims to identify the needs for digital media content to introduce Balikpapan tourism to early childhood learners. A qualitative descriptive approach was employed through interviews with teachers and parents at Al Azhar Kindergarten 58 Balikpapan. The findings indicate the necessity for educational media that integrates Balikpapan's local cultural values, includes parental supervision features, and utilizes child-friendly visual designs to enhance learning motivation while balancing digital engagement with real-world exploration. These insights serve as the foundation for developing culturally grounded digital media for early childhood, which is expected to strengthen cultural identity and provide a more meaningful learning experience.

Introduction

Early Childhood Education (PAUD) is a fundamental phase in child development that encompasses cognitive, motor, social, and emotional domains. Children aged 4–6 exhibit a high level of responsiveness to

learning media that are visual, interactive, and contextual. Therefore, learning strategies must be designed to provide experiences that are relevant to children's daily lives and immediate environment. One way to achieve this is by integrating the introduction of local tourism and cultural heritage into learning activities. In this context, the tourism potential and cultural values of Balikpapan can serve as contextual learning resources. A learning approach rooted in local wisdom not only broadens children's perspectives but also fosters love for their place of origin and strengthens cultural identity. According to Suwardi and Rahmawati (2019), education based on local wisdom has long-term benefits, including: (1) cultivating competent and dignified generations, (2) reflecting cultural values, (3) shaping national character, (4) strengthening national identity, and (5) contributing to cultural preservation. Thus, integrating local tourism and cultural values into early childhood education through innovative learning media can serve as a strategic step to support character education while promoting regional tourism.

In the educational context, learning media are understood as tools or resources used to effectively convey messages or learning materials to engage cognitive, affective, and psychomotor aspects of learners (Suryani et al., 2024). Considering the characteristics of early childhood learners who tend to respond well to visual and interactive stimuli, interactive digital media serve as an appropriate choice to support their learning needs. Support for digital media use in PAUD also aligns with

the Balikpapan City Government's initiative to distribute smart tables to PAUD institutions as part of efforts to improve early childhood education quality. Various studies have shown that interactive digital media can positively influence children's cognitive development, particularly in enhancing memory, concentration, critical thinking, and creativity (Husain, 2025).

However, learning practices in Balikpapan PAUD institutions still reveal several gaps. Based on observations and interviews conducted at one PAUD school in Balikpapan, the introduction of Balikpapan tourism to young children is still generally carried out through conventional methods, such as storytelling, and has not been incorporated into the formal curriculum. The use of digital media in PAUD learning is also relatively limited, even though many children are already familiar with digital technology in their daily lives. This situation creates a gap between the potential of digital media and children's need for contextual learning experiences that are relevant to contemporary developments.

The rapid proliferation of digital media in contemporary society has substantially transformed the developmental ecology of early childhood, particularly in the domains of language, social, and cultural development. Previous studies have demonstrated that digital media functions as a double-edged tool, offering both developmental opportunities and potential risks depending on the quality, duration, and context of its use.

Patel, McQueen, and Gold (2025) emphasize that early language acquisition is fundamentally grounded in social interaction and environmental stimulation, which may be altered by increased exposure to digital media. Their review highlights that excessive or developmentally inappropriate digital media use can hinder language development, especially when it replaces direct human interaction. However, the study also acknowledges the constructive role of high-quality educational media in enhancing vocabulary growth and supporting early language skills when used in a balanced and guided manner. Furthermore, the authors underline that digital media exposure is closely intertwined with cognitive and social development, suggesting that its impact extends beyond linguistic outcomes. Importantly, they stress the role of health care providers and families in promoting evidence-based and balanced media usage to support optimal developmental trajectories in young children.

In line with this perspective, Budiarti and Yasmin Adar (2023) investigated the impact of digital media on children's social-emotional development through a qualitative case study conducted at a kindergarten setting. Their findings indicate that the integration of digital media in early childhood education can positively influence social-emotional growth, as reflected in increased enthusiasm, empathy, and positive behavioral responses among children. Additionally, the study revealed that digital media contributes to improved teacher motivation and diversification of instructional strategies. Despite initial

challenges such as limited digital literacy among educators and inadequate infrastructure, collaborative stakeholder efforts gradually mitigated these constraints. Nevertheless, the study's limited scope, being confined to a single institution, suggests the need for broader investigations across diverse educational contexts to better understand the complex relationship between digital platforms and social-emotional development.

Complementing these findings, Ihmeideh and Alkhawaldeh (2017) explored teachers' and parents' perceptions regarding the role of technology and digital media in fostering child culture during the early years. The study, involving a large sample of preschool teachers and parents in Jordan, revealed that both groups generally perceived technology and digital media as having a relatively high contribution to the development of child culture. However, notable differences emerged between teachers' and parents' perceptions, with parents expressing more positive views toward the role of digital media compared to teachers. This discrepancy suggests that stakeholder perspectives may influence how digital media is integrated into early childhood learning environments. The findings also imply that expanding the use of technology and digital media in early childhood education should be accompanied by clear pedagogical guidance and alignment between home and school practices.

The novelty of this study lies in its attempt to address these gaps by analyzing existing learning media content and encouraging the

integration of early childhood education with local tourism promotion. Through the use of interactive digital media, children are not merely introduced passively to local tourism potential, but are also engaged actively in enjoyable learning processes. The urgency of this study is further strengthened by the fact that innovations in digital learning media can not only support educational goals but also serve as a sustainable tourism promotion strategy for the City of Balikpapan.

This study aims to analyze the learning media content used to introduce Balikpapan tourism to early childhood learners. The findings are expected to provide significant benefits for educators, learners, and local government. For teachers, the results may broaden their insights regarding innovative learning media and serve as a foundation for developing curricula based on local wisdom. For children, this study is expected to enhance their understanding of local tourism potential through engaging and contextual learning methods. Meanwhile, for local government, the findings can serve as a reference for designing tourism promotion strategies that are integrated with the education sector.

Methods

This study employs a qualitative descriptive method aimed at obtaining a comprehensive overview of the use of learning media in introducing Balikpapan's local culture and tourism. This approach was selected because it enables an in-depth exploration of the effectiveness of the learning media currently used, as well as the identification of

various challenges and expectations related to the development of interactive learning media within this context.

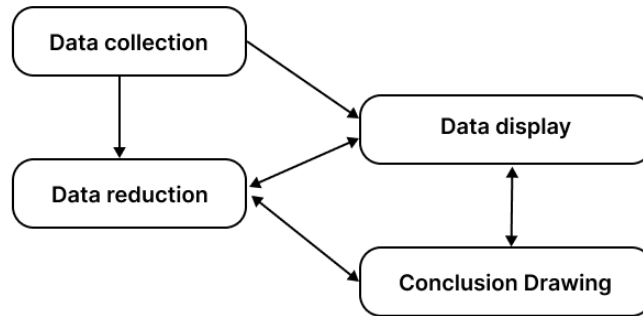
According to Meleong as cited in Wardani & Suryana (2021), qualitative descriptive research is a procedure that produces descriptive data in the form of written or spoken words derived from observable behavior. Consistent with this view, Huyler and McGill as cited in Suryaningrum (2023) explain that the qualitative descriptive method focuses on the processes of description, interpretation, and explanation of the experiences and contexts of individuals or phenomena being observed in order to build a deeper understanding. Based on these definitions, this method is relevant for research on interactive learning because it enables a detailed and holistic description of the issues examined.

The research subjects were selected from individuals capable of providing verbal information. The participants consisted of teachers and parents of students at Al Azhar Kindergarten 58 Balikpapan. Data were collected through observation and interviews. Interviews were conducted to explore children's perceptions, learning habits, and the expectations of teachers and parents regarding the use of digital media for early childhood learners. Meanwhile, observations were carried out to examine the learning process when children engaged with educational game media.

Data analysis was conducted using the Miles and Huberman model as cited in Nurrisa & Hermina (2025), which includes three main stages:

(1) Data Reduction, (2) Data Display, and (3) Conclusion Drawing.

Figure 1. Qualitative Data Analysis Techniques



Result and Discussions

Use of Media in Introducing Balikpapan Tourism

The interview results indicate that teachers and parents utilize various general media, such as YouTube videos, to introduce Balikpapan tourist attractions to early childhood learners. Additionally, interactive digital media have been used in schools, both in the form of instructional videos and interactive games available on smart tables. Children appeared highly enthusiastic when engaging with these media, creating a more engaging and dynamic learning environment. However, no educational game or video has been specifically designed for introducing Balikpapan tourism. Outside the school setting, children gain additional knowledge through direct visits with their parents, although the information they receive is generally limited to popular tourist sites that frequently appear on social media. These findings suggest that while digital media have been employed to support the

introduction of Balikpapan tourism at Al Azhar Kindergarten 58, their use has not yet been fully optimized and still requires further development.

Media needs for Introducing Balikpapan Tourism

a. Need for Local Content Based on Local Culture

Based on interviews with teachers and parents, the current introduction of Balikpapan tourism to children relies heavily on videos from platforms such as YouTube or educational games that predominantly feature global characters and content from platforms like YouTube, Roblox, and BabyBus. At Al Azhar Kindergarten 58, there is still no digital learning media specifically designed to represent the cultural heritage or tourist attractions of Balikpapan. Integrating local culture into early childhood education is essential for strengthening cultural identity, instilling moral values, and shaping environmentally conscious character as part of efforts to prepare resilient generations in the face of globalization (Larasati et al., 2025). The integration of local cultural elements in the educational process not only helps children recognize and appreciate cultural heritage but also provides a more relevant and meaningful learning context (Wahyuni, 2024).

This condition highlights the need to develop educational media based on local culture that incorporates visual elements and characters unique to Balikpapan to enhance children's understanding of their cultural environment. These findings reinforce previous studies indicating that local content plays a crucial role in fostering cultural

identity from an early age (Anggreni & Fachrurrazi, 2025). The limited availability of culturally grounded media results in children being more familiar with global characters, causing local potential to be insufficiently internalized in their learning experiences. This underscores the urgency of developing visual media that are not only engaging but also contextually aligned with Balikpapan's cultural identity.

b. Need for Supervision and Control

Parents face significant challenges in raising children in the digital era, as they must simultaneously support the positive use of digital media and control its negative impacts by supervising device use so that children can employ technology wisely (Wulandari et al., 2021). Parents continue to experience difficulties in filtering digital content appropriate for their child's age, compounded by disruptions such as frequent advertisements in non-premium applications. On the other hand, teachers express concerns about potential negative effects on children's eye health if gadget use is not properly regulated. Although the availability of digital devices at home can be utilized to stimulate early childhood development, this can only be achieved with strict parental supervision through appropriate device provision, content selection, rule setting, and monitoring of all digital activities (Iskandar et al., 2022).

Based on these findings, the design of digital learning media must include parental control features that enable parents to regulate usage

duration, select age-appropriate content, and monitor children's digital activities more effectively.

c. Need for Balance Between Digital Media and Real-World Activities

According to teachers, early childhood is a critical period for children to engage in direct environmental exploration. Therefore, activities such as field trips and nature-based play are still considered essential to support children's social and motor development. In integrating these with digital learning media, teachers emphasize the importance of developing media that continue to encourage children to engage in real-world exploration of their surroundings. The use of digital media must be balanced with traditional learning methods and involve the active participation of teachers and parents. Thus, technology should function as a complement to learning strategies rather than a replacement, ensuring that children's development remains holistic (Salim, 2022).

Accordingly, there is a need for educational media that can combine digital experiences with physical activities or field observations in a balanced manner. The integration of technology in early childhood education can support cognitive development when used purposefully and proportionally. The combination of digital and traditional play offers transformative possibilities for preschool curricula. By leveraging the cognitive and engagement benefits of digital tools alongside the social and physical advantages of traditional play, educators can create enriched learning environments that meet diverse developmental needs

(Sitanggang et al., 2025).

d. Need for Child-Friendly Visual Design to Support Learning Motivation

The implementation of multimedia-based learning not only improves children's learning focus but also provides a more meaningful and enjoyable educational experience (Firdausih et al., 2025). According to teachers and parents, learning about culture and tourism should be delivered through engaging approaches that stimulate children's imagination, such as through game-based activities. With such an approach, children do not feel as though they are participating in a formal learning process, allowing their curiosity and motivation to increase naturally.

Based on these findings, there is a need for learning media that incorporate challenge mechanisms and reward systems and are designed in the form of educational games to maintain the engagement and interest of early childhood learners. The use of educational games as learning media has been shown to enhance students' knowledge and transform learning patterns into more enjoyable experiences. Educational game media are highly suitable for improving the cognitive abilities and skills of young children (Dewi & Agung, 2021).

Conclusion

This study concludes that the digital media needs of early childhood learners at Al Azhar Kindergarten 58 Balikpapan for introducing Balikpapan tourism include: (1) local content that

introduces Balikpapan's culture and tourist destinations, (2) parental control features for safety and supervision, (3) a balanced integration of digital experiences and real-world activities, and (4) child-friendly visual design. These findings serve as an important foundation for the subsequent stages of designing interactive educational media based on local wisdom.

References

- Anggreni, M. A., & Fachrurrazi, A. (2025). Revitalisasi Kearifan Lokal Untuk Membangun Identitas Budaya Pada Anak Usia Dini. *Zaheen: Jurnal Pendidikan, Agama Dan Budaya*, 1(1), 172–187.
- Budiarti, E., & Yasmin Adar, S. (2023). Impact of Digital Media on Social-Emotional Development in Early Childhood: A Case Study at TK Kartika XX-46 Kendari. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 8(2), 89-98. <https://doi.org/10.14421/jga.2023.82-04>
- Dewi, N. P. A. P., & Agung, A. A. G. (2021). Game Education Berbasis Multimedia Interaktif pada Aspek Bahasa Anak Usia Dini. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 9(2), 149–157. <https://doi.org/10.23887/paud.v9i2.35439>
- Firdausih, I., DP, T. T., & Ali, M. (2025). Implementasi Pembelajaran Berbasis Audio Visual Dalam Meningkatkan Konsentrasi Belajar Anak Usia 5-6 Tahun Di Ra Nurul Islam. *IJIGAE: Indonesian Journal of Islamic Golden Age Education*, 6(1), 13–21. <https://doi.org/10.32332/10507>
- Husain, I. A. (2025). Dampak Game Edukatif pada Perkembangan Kognitif Anak Usia Dini. *Jurnal Kajian Pendidikan Dan Cakrawala Pembelajaran*, 1(1), 46–56. <https://doi.org/10.64690/jakap.v1i1.5>
- Ihmeideh, F., & Alkhalwaldeh, M. (2017). Teachers' and parents' perceptions of the role of technology and digital media in developing child culture in the early years. *Children and Youth Services Review*, 77, 139-146. <https://doi.org/10.1016/j.childyouth.2017.04.013>
- Iskandar, B., Syaodih, E., & Mariyana, R. (2022). Pendampingan Orang Tua Terhadap Anak Usia Dini dalam Menggunakan Media Digital. *Jurnal Basicedu*, 6(3), 4192–4201. <https://doi.org/10.31004/basicedu.v6i3.2781>

- Larasati, L., Azis, B. H., Anasyahrie, N. S., Fitriani, N. A., & Purwanto, E. (2025). Pengaruh Media, Budaya, dan Pendidikan Karakter Lingkungan pada Anak Sekolah. *CONVERSE Journal Communication Science*, 2(1), 9.
- Nurrisa, F., & Hermina, D. (2025). Pendekatan kualitatif dalam penelitian: Strategi, tahapan, dan analisis data. *Jurnal Teknologi Pendidikan Dan Pembelajaran* | E-ISSN: 3026-6629, 2(3), 793–800.
- Patel, R., McQueen, E., & Gold, C. (2025). Balancing digital media exposure: Enhancing language and social development in early childhood. *Pediatrics in review*, 46(5), 245-257. <https://doi.org/10.1542/pir.2024-006413>
- Salim, N. A. (2022). Integrasi teknologi dalam pendidikan anak usia dini: menilai dampaknya pada perkembangan kognitif. *Jurnal Warna: Jurnal Pendidikan Dan Pembelajaran Anak Usia Dini*, 7(02). <https://doi.org/10.24903/jw.v7i2.1533>
- Sitanggang, T. W., Priyono, H., & Patel, L. (2025). Lingkungan bermain digital mengintegrasikan teknologi dengan permainan tradisional di prasekolah: Digital play environment integrating technology with traditional play in preschool. *Jurnal MENTARI: Manajemen, Pendidikan Dan Teknologi Informasi*, 3(2), 187–194. <https://doi.org/10.33050/mentari.v3i2.775>
- Suryani, A., Loliyana, L., Rohman, F., Sowiyah, S., Sugianto, S., & Khomsiyati, S. (2024). Artificial Intelligence sebagai Media Pembelajaran untuk Anak Usia Dini. *Ceria: Jurnal Program Studi Pendidikan Anak Usia Dini*, 13(3), 391–415.
- Suryaningrum, S. (2023). Strategi pengembangan keterampilan berbahasa anak sekolah dasar melalui cerita bergambar. *Edukasi Tematik: Jurnal Pendidikan Sekolah Dasar*, 4(1), 1–7. <https://doi.org/10.59632/edukasitematik.v4i1.284>
- Suwardi, S., & Rahmawati, S. (2019). Pengaruh nilai-nilai kearifan lokal terhadap pola pengasuhan anak usia dini (AUD). *Jurnal Al-Azhar Indonesia Seri Humaniora*, 5(2), 87–92. <http://dx.doi.org/10.36722/sh.v5i2.347>
- Wahyuni, A. (2024). Media pembelajaran berbasis kebudayaan lokal pada pembelajaran anak usia dini. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, 743–753. <https://doi.org/10.19105/kiddo.v1i1.12929>

- Wardani, E. K., & Suryana, D. (2021). Permainan edukatif setatak angka dalam menstimulasi kemampuan berfikir simbolik anak usia dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(3), 1790–1798. <https://doi.org/10.31004/obsesi.v6i3.1857>
- Wulandari, H., Asiah, D. H. S., & Santoso, M. B. (2021). Pengawasan orangtua terhadap anak usia prasekolah dalam menggunakan gawai. *Jurnal Penelitian Dan Pengabdian Kepada Masyarakat (JPPM)*, 2(1), 46–55. <ps://doi.org/10.24198/jppm.v2i1.33437>