



## Integrating Sumbang Duo Baleh Values into Early Childhood Character Education through Interactive Google Sites Media

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**Abstract:** Character education in early childhood is crucial for shaping behavior and morals, especially by integrating local cultural values. This study develops interactive Google Sites media to teach Sumbang Duo Baleh character values to children aged 5-6, using the Research and Development (R&D) method with the 4D model. Validated by education and technology experts, the media achieved a "Highly Valid" rating with a 95.31% content feasibility score and 87.96 for media presentation in functionality, usability, efficiency, and portability. It was also rated highly practical, scoring 85.7 for ease of use by teachers in daily activities. Integrating Sumbang Duo Baleh values into interactive media offers an effective strategy for enhancing character education and fostering culturally relevant learning in Indonesian early childhood education.

**Abstrak:** Pendidikan karakter pada anak usia dini sangat penting untuk membentuk perilaku dan moral, terutama dengan mengintegrasikan nilai budaya lokal. Penelitian ini mengembangkan media interaktif berbasis Google Sites untuk mengajarkan nilai-nilai karakter Sumbang Duo Baleh kepada anak usia 5-6 tahun, menggunakan metode Research and Development (R&D) dengan model 4D. Media ini divalidasi oleh ahli pendidikan dan teknologi, dengan penilaian "Sangat Valid" dan skor 95,31% untuk kelayakan konten serta 87,96 untuk penyajian media dalam hal fungsionalitas, kegunaan, efisiensi, dan portabilitas. Praktikalitasnya juga dinilai tinggi, dengan skor 85,7 untuk kemudahan penggunaan oleh guru dalam kegiatan sehari-hari. Integrasi nilai Sumbang Duo Baleh dalam media interaktif ini menawarkan strategi efektif untuk meningkatkan pendidikan karakter dan mendorong pembelajaran yang relevan secara budaya di pendidikan anak usia dini di Indonesia.

**Keywords:** Interactive Media, Google Sites, Character, Sumbang Duo Baleh, Early Childhood

## INTRODUCTION

The development of character values is very important to be carried out from an early age to develop a solid moral foundation and values (Hidayati et al., 2022; Saptatiningsih & Permana, 2019). Erikson (1950) stated that the early years of a child's life are very important for the formation of identity and fundamental values. The results of the research by Heckman et al., (2006), found that investment in early childhood education has long-term benefits on character development and quality of human resources.

However, the reality in Indonesia shows the opposite picture. Multidimensional crises, especially in the field of education, are affected by changes in times and global lifestyles (La Hadisi, 2015; Priyanti & Warmansyah, 2021; Sparrow et al., 2020; Warmansyah & Nirwana, 2023). Data from Dirjen Pemasarakatan shows alarming figures, with the number of child inmates reaching 1,896 in 2022, up from 1,710 children in 2021 and 1,723 children in 2020. This phenomenon reflects the lack of positive contributions from the younger generation during the period of building character values. Therefore, it is important to improve the quality of human resources with character, because childhood is a golden age for building character values (Febriani et al., 2023; Nuruzzaman et al., 2023; Wulandari et al., 2024). The research results by Suri & Chandra, (2021) show that globalization through technological advances opens up access to information from various cultures for children. This needs concrete actions to maintain local cultural values in education.

Observations at several PAUD schools (kindergarten and RA) in Padang Panjang City at the end of the odd semester of 2023/2024, found that there was a lack of stimulation from teachers in shaping students' attitudes and behaviors, especially in speaking, and behaving. The results of the observation show that there are still

some undeveloped behaviors of children, such as interrupting speech and lack of use of polite language such as sorry, please, excuse me, and thank you. Interviews with teachers found that supporting facilities in the form of learning media are still minimal, especially in building children's character values.

These problems need concrete action though approaches, strategies, methods and media. As research by, Halimah et al., (2020), shows that early childhood moral values can be stimulated through the traditional art of wayang golek. Other research also states that building character values in the early stages of child development can be done by integrating Pancasila values through digital media (Ashari & Anwar, 2022; Mulyanti & Bayan, 2022; Nurani et al., 2022). These results are also strengthened by research by Watini (2020) e character values through fun and educational play activities for early childhood. In addition, other studies have also found the benefits of using technology-based media in introducing Minangkabau culture, especially the concept of "Sumbang Duo Baleh," to children during the Covid-19 pandemic (Hartati et al., 2022).

Although previous research has discussed approaches, the use of Pancasila values, and digital media in shaping character, there is a specific research gap on the development of interactive media assisted by Google Sites to build children's character values on the basis of "Sumbang Duo Baleh". This research is innovative by focusing on the development of interactive media using Google Sites." This has not been specifically explored in previous studies that explored more at higher levels of education (Butsiani, 2023; Devya et al., 2022). Therefore, this study makes an important contribution to building children's character values based on Minangkabau cultural values.

This research aims to: identify the need, design, validity, and practicality of interactive Google Sites media in building

character values based on Sumbang Duo Baleh for early childhood education in Padang Panjang.

## METHOD

This study employs a Research and Development (R&D) method, specifically adopting the 4D Model (Thiagarajan, 1974), focusing on the development stage without extending to dissemination. The Four D Model comprises four key phases: Define, Design, Develop, and Evaluate.

In the Define phase, we analyze the issues related to instilling character values in early childhood education (ECE) at the PAUD Stuan in Padang Panjang. The Design phase involves conducting a needs analysis to understand the values and characteristics of Sumbang Duo Baleh to be integrated into the learning materials for children aged 5-6 years. This phase includes selecting an interactive media format using Google Sites, which accommodates gamification, interactive multimedia, and evaluation tools tailored for young learners. Content selection focuses on local short stories, traditional songs, and educational games relevant to the children's culture and age. The Develop phase consists of creating a child-friendly user interface (UI) and implementing interactive content, such as rearranged traditional songs and educational games, to support understanding of Sumbang Duo Baleh values. Initial trials with a small group of 5-6-year-old children at PAUD help assess responses, identify improvements, and ensure alignment with educational expectations.

The subjects of this study are students from PAUD Cahaya Bangsa in Padang Panjang, where the interactive Google Sites media will facilitate the character-building process based on Sumbang Duo Baleh. This media will be evaluated by experts after limited trials. For validation, an instrument consisting of a questionnaire is utilized, featuring a 4-point Likert scale, with ratings from "excellent" to "poor." Data analysis

involves assessing the validity and practicality of the media, calculated using the formula:  $NP = (R/SM) \times 100$ , where NP represents the desired percentage value, R is the raw score obtained from participants, SM is the maximum ideal score of the test, and 100 is a constant.

## RESULTS AND DISCUSSION

### Results

This development research aimed to create interactive media using Google Sites to instill character values based on Sumbang Duo Baleh in early childhood education (ECE) at PAUD Kota Padang Panjang, following three stages: Define, Design, and Develop.

In the Define stage, researchers distributed questionnaires to ECE teachers to assess their understanding and application of character values.

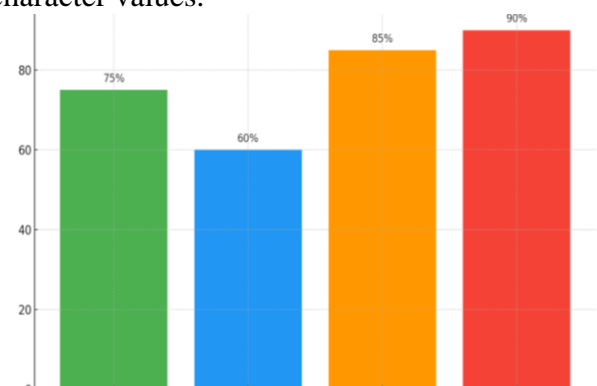


Fig 1. The results of kindergarten teacher questionnaires in Padang Panjang

Results showed that 75% of teachers recognized the importance of these values, but only 60% applied them effectively in their teaching. Additionally, 85% reported difficulties in integrating Sumbang Duo Baleh values into interactive media due to limited training and resources. The analysis also highlighted a low level of parental involvement in character development and a lack of suitable media to facilitate teaching.

These findings provided a solid foundation for the next stages of designing and developing effective interactive media to enhance character education based on Sumbang Duo Baleh in PAUD Kota Padang Panjang.

**The design phase** focuses on creating interactive media to foster early childhood character values based on Sumbang Duo Baleh. This begins with defining the twelve guidelines of Sumbang Duo Baleh, which encompass behaviors, communication, and social interaction, ensuring each value is clearly articulated for easy integration into the media. Relevant literature on character education and Google Sites usage is collected to guide the design. The structure of the interactive media is then established, organizing main pages within Google Sites to support continuous learning, with each page dedicated to specific character values and accompanied by engaging activities. Content tailored to early childhood development—such as text, images, and videos—is developed to be both understandable and appealing. Finally, a prototype of the interactive media is created and tested to ensure all elements function effectively and align with the intended learning objectives, ultimately providing a valuable educational tool that makes learning enjoyable for children.

**The result of this design stage** is an interactive media based on Google sites that is ready to be tested and further developed. This media is designed to assist PAUD teachers in building early childhood character values based on Sumbang Duo Baleh, with structured and easily accessible content. The steps that have been taken in this design phase provide a solid foundation to proceed to the development stage, where this interactive media will be tested and refined based on user feedback. The results of this development can be seen in the following link:

<https://sites.google.com/view/sumbang12-planing-b/home>



Fig 2. Final Interactive Media design using Google Sites

**The result of this develop stage** are three professionals validated the interactive material developed by Google Sites, offering input on several areas. The media was graded as "Highly Valid," with an amazing average score of 95.31%. The media's goal was to promote character qualities in early childhood education using the Sumbang Duo Baleh method. The presentation earned 95.31%, while the content received a rating of 94.79%. Three of the sixteen indicators evaluated were classified as "Valid," with the remaining signs falling into the "Highly Valid" category. The media was noteworthy

for its alignment with the national curriculum and developmental initiatives, but with significant room for improvement in terms of language use.

After validation, the research team included recommendations from media and content specialists, resulting in several improvements. To improve usability for young children, the media's navigation and layout were made simpler, and educators were given better instructions to help with usage. In order to accurately communicate the ideals of Sumbang Duo Baleh, the material was also improved, and interactive elements were included to promote kids' interest in learning. Additionally, the wording was changed to make it more understandable and applicable for younger students. Following these changes, the product was tested on 20 early childhood educators, who gave it very good reviews.

The medium had an average score of 85.07%, which indicated that it was "Very Practical," emphasizing how well it supported different learning activities and was simple to use. Teachers were grateful for the ease with which the media facilitated classroom management and allowed them to monitor students' development. All things considered, this interactive medium not only increases kids' active involvement but also makes the classroom more interesting and fun.

## **Discussion**

This research focuses on developing and evaluating interactive media based on Google Sites to instill character values rooted in the Sumbang Duo Baleh within Kindergarten) in Padang Panjang. The results demonstrate that the media is both valid and practical, validated by experts and practitioners. The discussion below emphasizes the need, design, validity, practicality, and implications of this media.

According to the study, there is a clear need for technology-based interactive media in kindergartens in Kota Padang Panjang, as educators face challenges in providing learning tools that promote both cognitive

growth and character development in children. Trilling & Fadel (2009) highlight the importance of adapting education to technological advances to enrich learning experiences. Integrating Sumbang Duo Baleh values is essential for character formation. However, the incorporation of local wisdom into technology-based learning remains limited (Afifah et al., 2023; Bisma et al., 2023; Puspitasari & Ni'mah, 2024; Warmansyah et al., 2023). Survey findings reveal that 90% of teachers believe existing media are inadequate for effectively conveying character values. This underscores the urgent need for media that marries technology with local cultural values.

The design of the interactive media prioritizes active engagement, fostering a learning environment where children participate actively. Mayer (2002) emphasizes the need to address cognitive, affective, and psychomotor aspects in educational media. The inclusion of interactive features—like images, videos, and animations—captures children's interest and motivates them to learn, creating enjoyable experiences. Laurillard (2013) points out that accessibility and flexibility in media use allow teachers to implement it in diverse learning situations. Features such as quizzes and educational games related to Sumbang Duo Baleh values facilitate fun learning. Dewey's (1938) theory of experiential learning further supports the notion that children learn best through direct engagement. Moreover, this media assists teachers in monitoring character development systematically, enhancing the child-centered learning approach (Garrison & Vaughan, 2007; Khamidah & Sholichah, 2022; Latifa et al., 2023; Sari et al., 2024; Warmansyah, 2019).

The validity of the media was confirmed through rigorous assessments by early childhood education and educational technology experts, achieving an impressive average validity score of 85.07%. Sugiyono (2017) defines validity as how well an instrument measures its intended purpose. The media successfully supports the teaching



of Sumbang Duo Baleh character values, with experts praising its content quality, visual design, and user-friendliness, affirming its alignment with essential pedagogical standards (Clark & Mayer, 2016). Children's understanding of the taught values improved, illustrating that effective character education encompasses cognitive, affective, and behavioral dimensions (Lickona, 1992). The appealing design aids comprehension of abstract concepts, validating Mayer's (2002) assertion that effective visualization enhances learning.

In terms of practicality, teachers evaluated the media during their daily learning sessions, yielding a high usability score of 85.07%. Practicality refers to how easily the media can be implemented in the learning environment, facilitating educators in achieving their educational objectives (Reeves & Hedberg, 2003). Positive feedback highlighted the media's accessibility and interactive features, which help clarify abstract moral concepts. Laurillard (2013) notes that effective media should translate abstract ideas into concrete learning experiences. The media's flexibility allows for adaptation in various contexts, fostering collaboration between educators and parents. Beetham & Sharpe (2013) emphasize that flexibility in media use is crucial for creating comprehensive learning experiences. Additionally, the media enables teachers to monitor children's progress, providing targeted feedback that enhances the learning process. In summary, the results affirm that this interactive media is highly suitable for Kindergarten settings, offering a practical and effective tool for teaching character values to young children systematically.

## CONCLUSION

This study creates interactive media using Google Sites to promote values in early childhood education utilizing the Sumbang Duo Baleh approach in kindergartens in Padang Panjang. The results show a high demand for such media,

highlighting the importance of local culture. The design promotes appealing images and interactivity, encouraging active learning while making it easy for teachers to utilize. Validity and practicality studies indicate its quality and efficacy in satisfying educational requirements, presenting a unique approach for incorporating technology into the learning process that meets the demands of students in the digital era. Future research should explore broader implementation of this media in different regions and educational contexts to assess its adaptability and effectiveness. Long-term studies are also needed to evaluate its impact on children's character development, cultural awareness, and social responsibility.

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