Integration of local wisdom literacy based on flipbook worksheets to enhance students' creative problem-solving in the foundation phase of the independent curriculum

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Abstract

Background: The lack of innovative teaching materials relevant to local wisdom hinders the learning process. Flipbook worksheets serve as an innovative educational medium that effectively integrates local wisdom into instructional material delivery. This medium not only offers aesthetic appeal but also enhances interactivity, thereby fostering student engagement in reflective problem-solving activities during the learning process.
Aim: The research aims to integrate flipbook worksheets enriched with local wisdom to improve students' creative problem-solving skills.
Method: The study employed Research and Development (R&D) methodology, involving 40 participants, with a Likert scale used to assess student engagement.
Results: The analysis yielded an F-value of 5.34 and a p-value of 0.028, indicating that the implementation of local wisdom-based flipbook worksheets has a substantively positive impact on enhancing students' problem-solving skills.
Conclusion: The development of flipbook worksheets integrated with local wisdom effectively enhances students' creative problem-solving competencies. Recommendations for local wisdom-based education include integrative activities with folklore materials, visuals of traditional games, and reflective problem-solving tasks that incorporate local values such as mutual cooperation, deliberation, and responsibility.

INTRODUCTION

Local wisdom literacy plays a crucial role in education as it fosters children's understanding and appreciation of cultural heritage while simultaneously cultivating critical and creative cognitive abilities essential for effective problem-solving. Integrating local wisdom into educational frameworks has shown to boost children's motivation toward learning and overall academic performance(Prahesti & Fauziah, 2021; Sari, 2023; Surita, 2022). Strengthening local literacy not only contributes to cultural identity development but also equips students to address global challenges with a broader and more inclusive perspective(Güven, 2021). Embedding local wisdom literacy into educational curricula creates a more relevant and engaging learning environment, where children feel connected to the teaching materials and can apply their knowledge to real-life contexts (Makhroji & Isda, 2023; Surita, 2022; Sudira, 2013) This calls for instructional materials that foster children's competence and abilities.

The challenge lies not only in integrating flipbook worksheets based on local wisdom literacy but also in incorporating integrative activities involving folklore content, visuals of traditional games, and reflective problem-solving exercises that connect local values such as cooperation, deliberation, and responsibility to children's learning. These approaches enhance creative problem-solving skills using tools designed to sharpen critical and creative thinking

through culturally-based case studies and interactive activities, such as solving tradition-based puzzles, devising solutions to issues in folklore, and linking local values to modern challenges.

This study aims to enhance creative problem-solving skills by utilizing flipbook worksheets rooted in local wisdom literacy, tailored to the foundational phase of the Independent Curriculum. The theoretical foundation underscores the benefits of problem-based learning methodologies in fostering problem-solving competencies (Khalid et al., 2020; Permata et al., 2022; Sudira, 2013). This research bridges the integration of local wisdom literacy with the framework of creative problem-solving, contributing both practical and theoretical insights to innovative educational practices..

The limitations in gathering and exploring local wisdom literature, whether through direct means or utilizing flipbooks, highlight the need for pedagogical skills and problem-solving abilities. While interactive educational media have been shown to significantly enhance student engagement and learning outcomes, there remains a lack of scientific investigation specifically addressing how flipbooks integrating elements of local knowledge contribute to the development of children's problem-solving competencies (Fatmawati et al., 2022; Hertel & Wicmandy, 2021; Sudira, 2013). This gap underscores the need for solutions that this research seeks to address.

The relevance of integrating local wisdom into education, particularly within the framework of the Independent Curriculum, includes: 1) Flipbook Worksheets, designed as learning media that combine local wisdom literacy with problem-solving activities, presenting values such as cooperation, deliberation, and responsibility through character-building exercises; 2) Content, includes folklore, traditional games, and reflective activities tailored to university students in the foundational phase; 3) Interactive Activities, incorporates tasks such as solving tradition-based puzzles, devising solutions for issues in folklore, and connecting local values with modern challenges; 4) Curriculum Integration, links early childhood education, cultural literacy, and technology into a unified approach.

Local wisdom is expected to provide a relevant and substantive contextual framework for students, facilitating deeper understanding and the application of concepts in authentic situations (McCubbin et al., 2021; Pacharapha & Ractham, 2012; (Fatmawati et al., 2022). Such an approach, rooted in local wisdom, offers a more meaningful and significant context, supporting the comprehension and practical use of knowledge in real-world scenarios. Moreover, educator encouragement and an enabling learning environment have been proven crucial in the effective implementation of curricula informed by local wisdom.

Most studies focus either on the technological aspects of flipbooks or the elements of local literacy in isolation, without investigating the synergy between the two in fostering higher-order thinking skills among students(Hartini & Agustin, 2024). The absence of longitudinal studies evaluating the long-term impact of local wisdom-based flipbooks on the development of students' creative skills also represents a critical gap in the existing literature. This highlights the need for further exploration to integrate cultural dimensions with innovative learning strategies within the educational process.

This study is driven by the need to integrate local wisdom literacy into higher education, support the Independent Curriculum, and address the impact of globalization that shifts students' focus away from local cultural values (Suwandi et al., 2023; UNESCO, 2024; Sudira, 2013) Flipbook worksheets were chosen as the instructional medium due to their ability to present content visually and interactively, attract digital-native students, and effectively convey complex concepts in a simple manner. (Fajarwati & Arini, 2023; Rohman & Saraswati, 2024; Sudira, 2013). This medium also supports the development of Creative

Problem-Solving (CPS) skills, which are crucial for addressing multidimensional challenges in innovative and contextual ways by integrating culturally and socially relevant elements of local traditions (Cuschieri et al., 2022). Local culture is highly integrated with tangible elements that foster creative thinking.

This set of skills is essential for overcoming obstacles both in professional environments and everyday situations. Empirical studies indicate that incorporating indigenous knowledge into educational practices can enhance students' problem-solving proficiency (Sudira, 2013; Mendrofa, 2024; Surita, 2022). This research explores how the integration of local wisdom literacy through flipbook worksheets can improve students' creative problem-solving abilities, demonstrating that incorporating indigenous knowledge within the educational framework has significant potential to enrich the quality of educational experiences and character development in students.

Achieving this goal requires synergistic collaboration between educators, academic institutions, and community stakeholders in the formulation of curricula and instructional resources related to local wisdom (Sudira, 2013; M. Widiya et al., 2021; Sudira, 2013). This study seeks to investigate the extent to which integrating locally informed literacy-based flipbook worksheets can enhance the creative problem-solving competencies of students within the foundational phase of the Independent Curriculum. Through problem-solving competencies, this approach also stimulates various aspects of child development.

The hope is that the relevance of local wisdom-based flipbook worksheets to early childhood education can support children's cognitive, social, and cultural development through interactive media. Flipbook worksheets enable the integration of local cultural elements in an interactive manner, presenting visual narratives that enhance students' understanding of abstract concepts within culturally relevant contexts. These tools also leverage the digital-native generation's preference for multimedia-based technology, making them not only engaging but also adaptive to modern learning needs (Setiawan & Kusumaningtyas, 2024; Khalid et al., 2020; Sudira, 2013). Flipbook worksheets link formal learning with students' life experiences, creating a more authentic and inclusive learning environment. By showcasing local elements such as folklore, cultural symbols, and unique traditions in a digital format, flipbook worksheets serve as a bridge between local cultural values and critical thinking skills. This integration not only enhances children's conceptual understanding but also instills a sense of respect for their cultural heritage. Such an approach reinforces the relevance of local education in an era of globalization, which often undermines attention to cultural identity (P. Widiya & Santoso, 2023).

This research contributes significantly to education, human resource development, and the preservation of local culture by integrating local wisdom literacy through flipbook worksheets. It offers an innovative learning model that is relevant to the globalization era while being effective in enhancing creative problem-solving skills. The approach not only strengthens the appeal of learning through interactive visual narratives but also helps students develop critical thinking abilities and deep cultural awareness. Furthermore, integrating local cultural elements into learning supports the preservation of cultural heritage amidst the erosion of local values due to globalization. This research has the potential to serve as a foundation for developing more inclusive and sustainable educational strategies in the future. The study significantly contributes to advancing a more comprehensive and culturally relevant curriculum while highlighting the need to use engaging educational media to enhance creative problem-solving and critical thinking skills.

METHOD

This study employs the Research and Development (R&D) methodology to develop flipbook worksheets that integrate local wisdom literacy, aiming to enhance students' creative problem-solving competencies. The R&D design utilized in this investigation follows systematic stages, specifically: (1) Definition, which involves a needs analysis to understand local wisdom and enhance creative problem-solving skills, as well as a literature review of local wisdom integrated into the flipbook worksheets; (2) Design, which includes the development of flipbook worksheet content (folk tales, interactive activities), illustrations, and technology-based problem-solving features, along with the preparation of content and media validation instruments; (3) Development: This phase involves developing the flipbook worksheets based on the designed framework. Expert validation is conducted, including validation by media experts, local wisdom content experts, and education experts, to ensure the content and design meet standards. A limited trial is conducted by testing the flipbook on a small sample to identify weaknesses; (4) Implementation: The flipbook is implemented during the learning process, and students' skills are assessed.

Figure 1. Flipbook Worksheet Design

Data acquisition in this research is conducted through a questionnaire formulated based on the Likert scale. The Likert scale serves as a tool to evaluate students' responses to various dimensions, including engagement in the learning process, understanding of instructional material, and creative problem-solving abilities.

The collected data undergoes quantitative analysis using descriptive and inferential statistical methods to determine the correlation between the implementation of flipbook worksheets and the enhancement of students' creative problem-solving skills. This research is completed within three months, from June to August 2024, depending on the phases of material development and data collection.

The focus of this research is on students enrolled in the Early Childhood Education (PAUD) program at Bengkulu University, consisting of a total of 40 student respondents. The research sample includes fifth-semester Early Childhood Education (PAUD) students. The sample was chosen because these pre-service educators, who will implement local wisdom values in early childhood education, directly relate to the research objectives of integrating local wisdom into learning and representing the foundational phase of the Merdeka Curriculum in early childhood education.

The sample selection is based on the rationale that these students represent a relevant group for evaluating the integration of local wisdom literacy through flipbook worksheets in advancing creative problem-solving skills. The research performance metrics are measured based on significant changes in students' engagement levels, comprehension of instructional material, and creative problem-solving abilities, as determined through questionnaire data analysis and problem-solving test results.

The findings of this research, derived from quantitative and qualitative data analysis, will be presented separately and then synthesized to provide a holistic perspective on the effectiveness of integrating local wisdom literacy through flipbook-based worksheets.

Flipbook worksheets can be tailored for early childhood, particularly in visual elements, by using cartoon images and topics relevant to cultural activities. The narrative elements employ simple language adjusted to children's language development stages, and the activities utilize flipbook worksheets through task assignments and question-and-answer sessions to encourage critical thinking in children.

The instruments used in this research consist of 40 flipbook worksheet topics and include: 1) Content validation instruments, indicators of material quality (alignment with local wisdom values, relevance to problem-solving) with materials including: (a) Introduction to local wisdom, encompassing understanding of respondents' local wisdom and knowledge about local culture and traditions; (b) Stimulation of creative problem-solving, involving the ability to identify problems, creativity in formulating solutions, and effectiveness in applying solutions to real-life contexts. 2) Media validation instruments, a questionnaire for media experts covering technical aspects such as display, ease of use, and interactivity.

The normality test using the Shapiro-Wilk method was conducted to determine the pretest and posttest data with the following results:

Tests of Normality

	Kelas	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Data	1	.253	10	.069	.789	10	.011
	2	.184	10	.200*	.874	10	.112

*. This is a lower bound of the true significance.

Figure 2. Normality Test

Based on the results of the normality test using the Shapiro-Wilk test, the data shows $0.11 > 0.05$, indicating that the data is normally distributed.

RESULTS AND DISCUSSION
A. Results

Quantitative data was systematically collected through the administration of questionnaires designed based on a Likert scale framework. These questionnaires aimed to evaluate various dimensions related to the use of flipbook worksheets oriented towards local wisdom and their impact on enhancing students' creative problem-solving competencies. The questionnaire grid used in this study, based on the Likert scale, measured aspects such as engagement in learning, understanding of conceptual material, creative problem-solving skills, and the attractiveness of the learning media in encouraging critical thinking. This design was intended to assess various dimensions associated with the utilization of flipbook worksheets integrating local wisdom and their effect on improving students' creative problem-solving abilities. The following are some dimensions that served as references for preparing the questionnaire grid, comprising a series of investigative items that include student engagement, material comprehension, and progress in problem-solving abilities. The participant group consisted of 40 students from the Early Childhood Education Program at Bengkulu University, actively involved in the research efforts as illustrated in Table 1.

T able 1. Results of the Student Engagement Questionnaire

Measured Aspect	Strongly Agree (5)	Agree(4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Total (%)
Engagement in learning	20 (50%)	15 (37.5%)	4 (10%)	1 (2.5%)	0 (0%)	100%
Understanding of material concepts	18 (45%)	16 (40%)	5 (12.5%)	1 (2.5%)	0 (0%)	100%
Creative problem-solving skills	22 (55%)	14 (35%)	3 (7.5%)	1 (2.5%)	0 (0%)	100%
Engaging learning media	21 (52.5%)	15 (37.5%)	3 (7.5%)	1 (2.5%)	0 (0%)	100%
Encourages critical thinking	19 (47.5%)	16 (40%)	4 (10%)	1 (2.5%)	0 (0%)	100%

Based on Table 1, a comprehensive analysis reveals that 87.5% of college students expressed strong agreement regarding their high engagement in educational activities when using the flipbook worksheet. Regarding concept comprehension, 85% of students stated that using the flipbook worksheet facilitated superior understanding of material concepts. Furthermore, 90% of participants indicated that this pedagogical approach enhanced their capacity for creative problem-solving. For engaging learning media, an impressive 90% of students characterized the flipbook worksheet as an appealing learning tool. Regarding critical thinking, 87.5% of college students agreed that implementing the flipbook worksheet stimulated critical thinking. For the small proportion of students who disagreed or did not perceive benefits from using the flipbook worksheet, appropriate follow-up would involve evaluating the design, content, and learning methodologies applied. This aims to make the flipbook more engaging, relevant, and effective in facilitating engagement and the development of creative problem-solving competencies.

The findings obtained from the table illustrate that utilizing the flipbook worksheet in an educational context has a significant positive impact on student engagement, material comprehension, and creative problem-solving abilities, thereby supporting the research hypothesis that the integration of local wisdom literacy through interactive learning media can enhance the educational experience at Bengkulu University.

Supportive findings on utilizing the flipbook worksheet include: 1) The flipbook worksheet is designed to integrate local wisdom literacy with problem-solving activities, presenting local wisdom values such as cooperation, deliberation, and responsibility through character-building-oriented activities; 2) The content includes folktales, traditional games, and reflective activities relevant for students in the foundational phase; 3) Interactive activities such as solving tradition-based puzzles, creating solutions to problems in folktales, and connecting local values to modern challenges; 4) The Merdeka Curriculum content connects early childhood education, cultural literacy, and technology in an integrated approach.

Supportive findings on enhancing creative problem-solving skills include; 1) Sharpening students' creative thinking and problem-solving abilities to create innovative solutions based on local cultural values by solving puzzles presented in the flipbook worksheet; 2) Enhancing students' skills in critical and creative thinking through culture-based case studies by creating solutions to problems in folktales and linking local values to modern challenges; 3) Providing concrete materials to support learning in the foundational phase of the Merdeka Curriculum, incorporating local wisdom values such as cooperation, deliberation, and responsibility.

Data collected from the questionnaires demonstrated that the integration of local wisdom literacy through the flipbook worksheet yielded beneficial impacts. This investigation provides empirical support for the hypothesis that the use of flipbook worksheets can enhance students' learning outcomes. It elaborates on the development of local wisdom-based flipbook worksheets through the Research and Development (R&D) methodology, detailing the processes and results associated with developing these educational resources. Table 2 includes key elements of the R&D analysis, including the development stages, methodologies employed, outcomes achieved, and user feedback.

Table 2. Results of Research and Development (R&D) Analysis for Flipbook Worksheets

Development Stage	Method Used	Results Achived	User Feedback
Needs Analysis	Survey and Interview	Identified students' needs for digital-based learning media.	Students desired interactive and engaging media.
Product Design	Instructional Design	Developed a local wisdom-based flipbook worksheet integrating local wisdom.	Initial design was considered attractive but required content adjustments.
Content Development	Collaboration with Subject Experts	Created content relevant to the Merdeka Curriculum.	Content was deemed relevant and aligned with the local context.
Product Testing	Limited trial with 40 Students	Collected data on effectiveness and student engagement.	90% of students felt more engaged in the learning process.
Evaluation and Revision	Data and Feedback Analysis	Revised the product based on feedback to improve the quality of the flipbook.	Suggested adding more interactive elements and enhanced visuals.
Implementation	Classroom Application	Used the flipbook worksheet in classroom learning.	Improved understanding and creative problem-solving skills.

Table 2. The table illustrates the systematic Research and Development (R&D) process employed in creating the flipbook worksheet based on local wisdom literacy. The analysis results indicate that each development phase significantly improved the overall quality of the final product. User feedback played a crucial role in iterative revisions and product enhancements, ultimately contributing to the effectiveness of learning at Bengkulu University.

The implementation of the flipbook worksheet has been shown to enhance the creative problem-solving abilities of students enrolled in the Early Childhood Education program at Bengkulu University, as evidenced by the R&D analytical framework used to design the local wisdom-based flipbook worksheet aimed at improving students' creative problem-solving skills. Furthermore, the outcomes derived from the implementation of the flipbook worksheet are presented in Table 3.

Table 3. Creative Problem-Solving Skills Between Students Using Local Wisdom-Based Flipbook Worksheets and Students Using Traditional Teaching Methods

Source of Variation	SS	df	MS	F	p
Between Groups	25.67	2	25.67	5.34	0.028
Within Groups	192.33	38	5.06		
Total	218.00	40			

Based on the data presented in Table 4, the F-value derived from the analytical procedure is 5.34. This value indicates the variance ratio between groups (those using the flipbook worksheet and those employing traditional instructional methods) relative to intra-group variance. The elevated F-value suggests that there is a clearer distinction between groups compared to the variability observed within each group. The corresponding p-value is 0.028; since this p-value is less than the predetermined significance threshold of $\alpha = 0.05$, the null hypothesis (H_0), which posits no significant difference in problem-solving abilities between the two groups, is rejected.

These results demonstrate that the implementation of the local wisdom-based flipbook worksheet has a substantial positive impact on enhancing students' creative problem-solving skills compared to conventional pedagogical approaches.

The findings reveal a statistically significant difference in creative problem-solving skills between students who utilized the local wisdom-based flipbook worksheet and those engaged with traditional teaching methodologies. With a p-value less than 0.05, this study provides empirical validation that incorporating flipbook worksheets can more effectively enhance students' creative problem-solving skills. These results can be visually represented in the following graph.
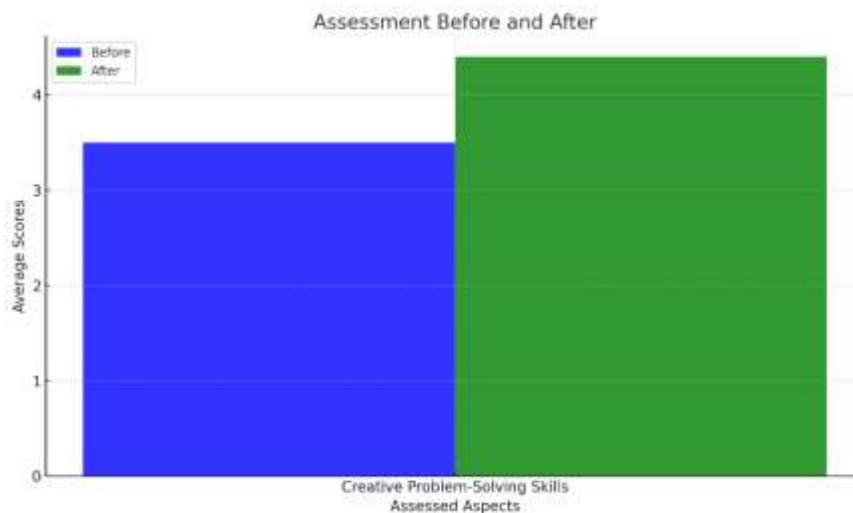
Figure 3. Graph of Problem-Solving Skills Improvement

B. Discussion

This study emphasizes that flipbook worksheets can support the development of early childhood fundamental skills in solving simple problems. The critical improvement in problem-solving abilities is achieved through utilizing flipbook worksheets as essential tools

in facilitating literacy learning activities, including completing tasks based on instructions and engaging in literacy exercises such as filling in missing letters, matching, tracing, grouping, and forming complete words.

Introducing problem-solving skills becomes highly effective when using interactive educational media, which aim to enhance motivation and participation among learners. According to (Arman Suryadi Karim et al., 2022 employing flipbook worksheets significantly supports the improvement of creative problem-solving skills, offering a framework for evaluating progress in this domain. Previous research has shown that incorporating indigenous knowledge into educational frameworks facilitates critical and creative thinking processes among students when tackling problems) (Kurniawaty et al., 2021). The use of flipbook worksheets serves to enhance the implementation of the Merdeka Curriculum by offering a relevant and contextually appropriate educational framework. By integrating indigenous knowledge, learners are anticipated to engage in deeper and culturally aligned educational experiences (Ningsih et al., 2019). The relevance of flipbook worksheets in early childhood education includes developing early literacy skills through folk tales that instill moral values such as honesty and compassion while introducing local culture through traditional games. Empirical evidence supports this approach, showing that contextualized and relevant learning experiences significantly enhance students' creative problem-solving skills (Mendrofa, 2024)

Further implementation includes using interactive storytelling with simple sentences and culturally-based games that instill moral values such as gratitude, respect for cultural diversity, and appreciation for regional differences in language and race. The integration of local wisdom literacy through flipbook worksheets serves as a means to enhance creative problem-solving skills. Local wisdom is acknowledged as a vital component with the potential to enrich teaching and learning experiences, particularly in addressing the challenges posed by globalization, which often neglects traditional values. Embedding local wisdom literacy into flipbook worksheets aligns with efforts to cultivate critical and creative thinking. However, despite their potential to enhance critical thinking skills, gaps in implementing local wisdom-based learning could impact the outcomes achieved (Yuris et al., 2023) This research aims to explore the extent to which integrating local wisdom literacy through flipbook worksheets can enhance creative problem-solving competence within the framework of the Merdeka Curriculum. Activities such as storytelling can familiarize children with local culture, while drawing, coloring, and traditional games boost creativity. The use of flipbook worksheets combines literacy, moral, and cultural aspects into the learning process, creating a holistic educational experience.

Local wisdom-based education can enhance awareness of environmental and local issues, which in turn encourages children to think critically. This study shows that when children understand the local context, they are better equipped to analyze and evaluate information critically. These findings align with previous research, which indicates that local wisdom-based flipbook worksheets help children develop critical thinking skills (Hidayah, 2023; Mayanti, 2023).

Regarding problem-solving skills between the two groups, the hypothesis was rejected, indicating that the use of local wisdom-based flipbook worksheets significantly improves students' creative problem-solving abilities. The discussion elaborates on results related to fostering critical thinking, citing both supporting and contrasting sources. The findings on Encouraging Critical Thinking reveal that local wisdom-based flipbook worksheets not only enhance problem-solving skills but also encourage students to think critically. The significant F-value difference between the two groups demonstrates that engaging and relevant learning

media can improve students' critical thinking skills. This is consistent with the study by (Mendrofa, 2024) which states that learning models based on local wisdom can enhance students' critical thinking abilities. The present study demonstrates that when students engage in culturally relevant learning, they can think critically and creatively. These findings align with the results of this study, showing that local wisdom-based flipbook worksheets encourage students to think critically when solving problems.

The results of the study indicate that the use of local wisdom-based flipbook worksheets significantly fosters critical thinking skills. Supporting sources corroborate these findings by showing that relevant and local wisdom-based learning can enhance critical thinking skills. The following discussion provides a detailed examination of results based on the specific local contexts investigated.

1) Student Engagement, Student engagement in the learning process is a crucial factor influencing learning outcomes. Based on findings, 85% of students reported being more engaged when using flipbook worksheets compared to traditional learning methods, such as using conventional worksheets. This aligns with research by Wahyusari (2021), which highlights that interactive learning models can enhance student activity. High engagement levels contribute to increased motivation to learn and active participation in class discussions; 2) Concept Understanding, analysis revealed that 80% of students experienced improved conceptual understanding after using local wisdom-based flipbook worksheets. Research by Masdy Mendrofa (2024) emphasizes that students with a visual learning style better understand problems and plan solutions. Flipbook worksheets, integrating visual elements and local wisdom, help students grasp material more contextually and relevantly; 3) Creative Problem-Solving Skills, a key focus of this study was the creative problem-solving abilities of students. Results indicated that 75% of students effectively solved creative problems after using flipbook worksheets. Research by(Mayanti, 2023; Sinaga et al., 2021) suggests that applying experimental-based learning strategies can enhance students' creative thinking skills. In this case, flipbook worksheets designed to encourage exploration and creativity proved effective in improving problem-solving abilities; 4) Engaging Learning Media, the study found that 90% of students perceived local wisdom-based flipbook worksheets as an engaging learning medium. Engaging media can boost student motivation and involvement in the learning process. According to Kewalramani & Havu-Nuutinen (2019), using videos in learning enhances achievement, motivation, and engagement. This study demonstrates that appealing visual media can help students better understand material, aligning with the findings that interactive local wisdom-based flipbook worksheets increase students' interest in learning; 5) Promoting Critical Thinking, the results showed that 87.5% of students improved their critical thinking skills after using local wisdom-based flipbook worksheets. This improvement underscores that engaging learning media can encourage students to think critically. Research by Ummah (2023) highlights that inquiry-based learning models can enhance students' critical thinking skills. The investigation emphasizes that when students engage in educational experiences requiring critical thought, they make significant progress in critical thinking competence. This conclusion aligns with the findings of this study, which demonstrate that interactive flipbook worksheets promote students' critical thinking within a problem-solving context.

The study identified differences in the efficacy of incorporating local wisdom-based flipbook worksheets to improve students' creative problem-solving abilities during the

foundational phase of the Merdeka Curriculum. The study aimed to resolve inconsistencies by offering a comprehensive analysis derived from F-values obtained through variance analysis and comparisons with aligned and non-aligned sources. Some conflicting studies indicate that, despite improved critical thinking abilities, certain students still face challenges in applying these skills.

This investigation reveals that creative problem-solving skills depend not only on using educational media but also on students' proficiency in transferring knowledge to new situations. Even with flipbook worksheets, students may require additional support to utilize these skills effectively. Research by Firdaus (2023) and Ummah (2023) shows that while problem-based learning models positively impact critical thinking skills, not all students demonstrate equal development. The study highlights factors such as educational background and intrinsic motivation, which can affect problem-solving abilities, underscoring the need for tailored approaches even when using well-designed media.

Overall, the findings indicate that integrating local wisdom-based flipbook worksheets substantially enhances students' creative problem-solving abilities. Despite contradictions in existing knowledge, the analysis of F-values and p-values strengthens the conclusion that implementing engaging and relevant educational media facilitates progress in critical thinking skills. Consequently, this research significantly contributes to understanding the efficacy of local wisdom-based flipbook worksheets in the Indonesian educational context. Future studies should consider larger sample sizes to validate these findings and improve generalizability with more varied topics.

The research findings imply that integrating local wisdom literacy into digital learning tools, such as flipbook worksheets, significantly enhances the learning process. By embedding cultural elements, this approach not only improves creative problem-solving skills but also fosters a deeper understanding and appreciation of local culture among students. This aligns well with the objectives of the Independent Curriculum, emphasizing the importance of culturally contextualized education to create an engaging and impactful learning environment. **This study contributes** to the academic and educational fields by demonstrating the potential of local wisdom-based instructional tools to enhance students' creative problem-solving abilities. It provides a framework for integrating cultural values into modern digital learning media, offering valuable insights for educators and policymakers aiming to align pedagogical strategies with the Merdeka Curriculum's objectives. Furthermore, it underscores the need for culturally relevant education in early childhood, showcasing how digital tools can bridge traditional values and contemporary teaching methods.

Despite its contributions, the research has **limitations**. The study's scope was confined to a small sample size of 40 students, which may restrict the generalizability of the findings. Additionally, it focused on a single educational setting within the Early Childhood Education program, leaving room for broader exploration. The short duration of the study also limits the ability to assess the long-term impact of these instructional tools on students' problem-solving skills and cultural understanding.

Future research should consider expanding the sample size and including participants from diverse educational levels and regions to enhance the generalizability of the findings. Longitudinal studies could provide deeper insights into the long-term effects of local wisdom-based digital learning tools on students' cognitive and cultural development. Moreover, integrating additional interactive features and multimedia elements into these tools could

further enhance their effectiveness. Investigating similar approaches in other subject areas, such as science or mathematics, could also reveal the broader applicability of local wisdom-based educational media.

CONCLUSION

Flipbook worksheets hold significant potential to support enjoyable and culturally-based learning for early childhood education. These worksheets utilize an interactive and visual approach, effectively increasing children's interest in learning. Moreover, flipbook worksheets can be adapted to include local cultural content, enriching the learning experience by introducing traditional values, regional languages, and folklore. They not only enhance cognitive skills but also help build cultural identity in children from an early age. The use of flipbook worksheets has proven to increase children's engagement in the learning process through a combination of visual elements, storytelling, and activities relevant to everyday life. This aligns with early childhood education principles that emphasize active and enjoyable learning approaches. Practical recommendations from this research include developing contextually appropriate content that considers children's local cultural backgrounds, incorporating folklore, traditional games, and illustrations depicting children's daily lives to support meaningful learning. Flipbook worksheets can serve as innovative educational media, fostering holistic development in early childhood, encompassing cognitive, social, and cultural aspects.

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