



Needs Analysis for Developing an SDG 14 (Life Below Water) Big Book to Support Preschoolers' English Learning through Shared Reading

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Abstract

In early childhood education, English language learning played an important role in developing children's early literacy skills. This study aimed to analyze the need for developing an SDG 14 (Life Below Water)-based Big Book to support preschool children's English learning through shared reading activities at PAUD Pelita Kasih Singaraja. The study employed a descriptive qualitative method involving classroom observations and semi-structured interviews with the English teacher of Class A2. The findings indicated that current teaching practices had not fully supported children's early literacy development due to a lack of engaging and effective learning materials. Although teachers used strategies such as questioning, repetition, and picture guessing, student engagement tended to decline as the lesson progressed. The use of media such as flashcards and small storybooks was insufficient to sustain children's interest and support meaningful shared reading activities. Furthermore, environmental education related to SDG 14 (Life Below Water) had not been effectively integrated into shared reading activities. Teachers expressed positive views regarding the development of SDG 14-based Big Books, as they could enhance student engagement, support shared reading activities, and build environmental awareness.

Keywords: *Big Book, Early Literacy, SDG 14, Shared Reading.*

INTRODUCTION

The development of literacy in childhood is an important foundation for academic success and lifelong learning. The development of reading literacy in preschool children significantly improves their language skills and engagement with texts. According to Suras et al., (2025), reading literacy is the process of preparing children to master the skills of understanding the content of a text and interpreting it verbally. In early childhood education, the development of reading literacy requires appropriate learning strategies that are tailored to children's developmental characteristics, as children tend to learn more effectively through interactive and meaningful experiences than through passive learning.

One effective approach to supporting language learning in children is shared reading (Weadman et al., 2023). Shared book reading is a learning activity in which teachers and children read books together and interact during the reading process, allowing children to actively engage with the text. During this activity, teachers guide children by explaining new vocabulary, pointing to illustrations, and encouraging them to express their ideas about the story. This type of interaction has been shown to improve children's communication skills, vocabulary development, and comprehension of texts (Cárdenas et al., 2020). Therefore, shared reading can be considered an effective strategy to support early literacy development

and enhance young learners' language abilities. In addition to the importance of shared reading as an effective learning strategy, the use of appropriate learning materials is also vital in supporting the language development of pre-school children

One of the most suitable media for shared reading activities is the Big Book. Big books are large books containing text and illustrations in large print that are easy for children to read. These books contain a considerable amount of content and pictures designed to attract and engage young learners, usually through simple and interesting storylines. Big books serve as an effective tool for capturing children's attention and stimulating their interest in reading (Susanti, 2020). According to Rizka (2020) the use of Big Books in storytelling activities significantly increases children's interest in reading and enhances their ability to retell stories, demonstrating their effectiveness in early literacy development. Incorporating meaningful themes such as Sustainable Development Goal (SDG) 14: Life below water into the content of the Big Book will foster environmental awareness in children from an early age.

Sustainable Development Goal 14 (SDG 14) focuses on the conservation and sustainable use of oceans, seas and marine resources for sustainable development. The objectives of SDG 14 are to reduce marine pollution, protect marine and coastal ecosystems, regulate fishing to prevent overfishing, and improve scientific knowledge and research capacity (Andriamahefazafy et al., 2022). Through stories about marine life, children will be introduced to basic English vocabulary whilst learning to care for and protect marine ecosystems.

To ensure that the development of a Big Book containing SDG 14 (Life Below Water) content aligns with the needs of preschool students and teachers, a needs analysis is a crucial step. A needs analysis helps identify children's language proficiency levels and interests, as well as the challenges teachers face when conducting shared reading activities. Based on observations conducted at PAUD Pelita Kasih Singaraja, the use of Big Books in English language learning has not yet been implemented, and the school still relies on media such as flashcards, which can sometimes cause children to become bored quickly and limit opportunities for interactive learning. Therefore, a needs analysis is necessary to identify the gap between current practices and the use of engaging learning media. According to Ika et al, (2020), a needs analysis is necessary to develop effective teaching materials. Additionally, the content of SDG 14 (Life Below Water) must be adapted to children's level of understanding to ensure it is easily comprehensible (UNESCO, 2017). This study aims to develop a Big Book based on SDG 14 (Life Below Water) to support English language learning for preschool children through shared reading activities while fostering early awareness of marine life conservation.

METHOD

This study was conducted at PAUD Pelita Kasih Singaraja. The subjects of this study were preschool teachers as the primary source of data, while preschool children were considered the target users of the proposed learning material. Preschool children aged 4–5 years were considered the target users of the proposed learning material. The selection of students was based on their involvement in English learning activities in the classroom. It employed a descriptive qualitative design with a focus on needs analysis to identify the requirements for developing an SDG 14 (Life Below Water)-based Big Book to support preschool children's English learning through shared reading activities.

Data were collected through classroom observations and semi-structured interviews. Classroom observations were conducted over several English language learning sessions to gain a comprehensive understanding of the teaching practices currently employed by teachers. The observations focused on classroom conditions, the learning environment, teaching media, teachers' strategies, and students' engagement during English learning activities. An observation checklist and field notes were used to systematically record the data during the teaching and learning process. Meanwhile, semi-structured interviews were

conducted with preschool teachers to obtain in-depth information regarding teachers' perspectives on English language instruction and the use of learning materials. The interview questions covered several aspects, including teachers' experiences in conducting shared reading activities, the challenges they faced, the availability of learning media, and teachers' expectations regarding the development of Big Books, particularly those based on SDG 14. The interviews were conducted flexibly so that teachers could explain their answers in detail, and the data were recorded and transcribed for analysis.

The data were analyzed using descriptive qualitative analysis, focusing on identifying learners' needs, teachers' needs, and the gaps between existing practices and ideal learning conditions. The findings of this needs analysis served as the basis for proposing the development of an SDG 14 (Life Below Water)-based Big Book that is appropriate, engaging, and aligned with the needs of preschool children.

FINDINGS AND DISCUSSION

Findings

The findings of this study are presented based on two main data sources: classroom observation and semi-structured interviews with preschool teachers. These findings highlight the current teaching practices, challenges, and needs related to the development of an SDG 14-based Big Book for shared reading activities.

Table 1 Findings from Classroom Observation

No	Aspect	Findings
1.	Classroom condition	The classroom environment was generally conducive, with adequate space, lighting, and seating arrangement to support learning activities.
2.	Learning environment	The learning process was teacher-centered, with limited interactive engagement between teacher and students.
3.	Teaching method	The teacher mainly used simple explanation and repetition techniques in teaching English vocabulary.
4.	Learning media	The primary instructional media used were flashcards and printed worksheets. No Big Books or large visual storytelling materials were used.
5.	Student engagement	Students showed initial interest but became easily bored, especially during repetitive activities using flashcards.
6.	Vocabulary learning	Students were introduced to basic English vocabulary; however, their understanding was limited due to lack of contextual learning.
7.	Interaction during learning	Interaction was minimal, with few opportunities for students to express ideas or participate actively.
8.	Use of storytelling	Storytelling activities were rarely conducted, and when used, they lacked visual support and interactivity.

Classroom observations indicate that the learning environment generally supports learning, such as comfortable classrooms and lighting, but the learning materials do not specifically support English language instruction. Teaching practices, which primarily rely on flashcards and worksheets, are indeed appropriate for preschoolers but are limited in maintaining student engagement; although the teacher employs shared reading with repetition strategies, this approach has not effectively encouraged deeper student interaction. The lack of student interaction is caused by limited variety in learning media and unengaging teaching strategies.

Overall, these findings indicate the need for more interactive, engaging, and story-based learning media, such as big books, to support effective shared reading activities and maintain student engagement in English language learning. The findings obtained from the semi-structured interviews with teachers further support the classroom observation results. A summary of these interview findings is presented in Table 2.

STable 2 Findings from Teacher Interview

No	Aspect	Findings
1.	Students' attention and participation	Students show varying levels of attention; some are enthusiastic and actively participate, while others tend to lose focus due to complex and less engaging content.
2.	Students' motivation	Students who are motivated show happiness, focused expressions, and active participation such as asking and answering questions.
3.	Teaching strategies	Teachers use strategies such as repetition, asking students to follow simple words, and encouraging them to guess pictures or sounds.
4.	Learning media used	Teachers use short storybooks (8–10 pages), but the small size makes them less effective for group reading activities.
5.	Perception of Big Book	Teachers believe that SDG-based Big Books can improve engagement through attractive visuals, simple language, and meaningful contextual content.
6.	Environmental teaching practice	Environmental topics are introduced through videos (e.g., underwater animals) and flashcards, but not integrated into reading activities.
7.	Challenges in teaching reading	One major challenge is the small size of books, which causes students to lose focus during reading sessions.
8.	Expectations for learning media	Teachers expect learning media that are visually attractive, meaningful, age-appropriate, and able to improve literacy skills and environmental awareness.

The findings from the semi-structured interviews corroborate the results of classroom observations; the interviews indicate that the level of student engagement in language learning varies significantly. Some students are active and motivated, while others tend to lose focus due to the lack of interest and interactivity in the learning materials. The teacher uses repetition, pronunciation guidance, and simple guessing activities that are appropriate for learning but limited in fostering deeper interaction. The use of small storybooks also hinders effective shared reading activities; students struggle to stay focused during these sessions. Environmental topics have not yet been integrated into reading activities, so the teacher expressed a positive view of using SDG 14-based big books, emphasizing their potential to enhance student engagement through large illustrations, simple language, and meaningful content. Overall, these findings highlight the need for learning media that are more visually engaging and contextually meaningful to support effective shared reading activities and foster student engagement and motivation in English language learning.

Discussions

This study highlights several key issues in early childhood English language learning, particularly in relation to shared reading activities, student engagement, and the use of learning materials. By integrating these findings with both foundational and recent studies, this discussion offers a clearer understanding of the gap between current classroom practices and ideal early literacy instruction, as well as its implications for developing an SDG 14 (Life Below Water)-based Big Book.

The findings show that students' engagement during shared reading activities tends to fluctuate. Some children are able to stay focused, while others quickly lose attention, especially during repetitive and less interactive learning processes. This condition reflects the characteristics of young learners, who generally require meaningful and interactive experiences to maintain their attention (Neumann, 2020). In the context of shared reading, interaction plays a crucial role. According to Cárdenas et al. (2020) active interaction between teachers and students supports vocabulary development and encourages children to express their ideas. However, the observations in this study indicate that such interaction is still limited, which may affect students' involvement and language development.

Information obtained from the interviews also indicates that teachers have implemented several strategies, such as repetition, questioning, and picture guessing. These strategies are appropriate for early learners; however, their effectiveness appears to be constrained by the limited availability of suitable learning materials. Teaching strategies alone are not sufficient without the support of well-designed instructional media. According to Weadman et al., (2023), shared reading can effectively enhance early literacy skills when supported by engaging and interactive materials. In this case, the absence of such materials reduces the overall impact of the strategies applied in the classroom.

Another important aspect concerns the use of learning materials. The findings suggest that commonly used media, such as flashcards and small-sized storybooks, are not yet able to support meaningful learning experiences. Although these materials are useful for introducing basic vocabulary, they tend to lack visual appeal and contextual depth, which are essential for sustaining children's interest. According to Mayer, (2024) combining visual and verbal elements can significantly improve learning effectiveness. In line with this perspective, Big Books offer a more suitable alternative, as they present large illustrations and simple texts that are easier for children to follow and engage with (Susanti, 2020; Marlina et al., 2024). Moreover, Rizka, (2020), found that the use of Big Books can enhance children's reading interest and their ability to retell stories, indicating their potential to support early literacy development.

The findings also reveal that environmental education, particularly related to SDG 14 (Life Below Water), has not been fully integrated into shared reading activities. Although teachers have introduced environmental topics through videos and flashcards, these have not been incorporated into structured reading experiences. According to UNESCO (2020)

Education for Sustainable Development (ESD) should be introduced from an early stage to build awareness and responsible behavior. Integrating SDG-related content into reading materials can create more meaningful learning experiences and help children relate language learning to real-life environmental issues (Andriamahefazafy, et al., 2022).

In addition, teachers expressed strong support for the development of an SDG-based Big Book. They believe that such media has the potential to increase student engagement, support shared reading activities, and promote environmental awareness. Previous studies have also shown that Big Books can improve students' participation, motivation, and literacy skills (Susanti, 2020; Andini et al., 2025; Neite et al., 2024). The use of large, colorful illustrations combined with simple and repetitive language makes Big Books particularly suitable for young learners, as they allow teachers to guide comprehension while encouraging active participation.

Overall, the findings point to a clear gap between current classroom practices and the expected conditions for effective early literacy instruction. Although teachers demonstrate an awareness of the importance of interactive and meaningful learning, the lack of appropriate instructional media remains a challenge. For this reason, the development of an SDG 14-based Big Book is considered highly relevant, as it can address multiple needs at once, including improving student engagement, supporting shared reading practices, strengthening early literacy skills, and fostering environmental awareness from an early age.

CONCLUSION

This study analyzes the need for developing an SDG 14 (Life Below Water)-based Big Book to support English language learning for preschool children through shared reading activities. The findings show that current teaching practices have not fully supported early literacy development. Although teachers use strategies such as repetition, question-and-answer sessions, and picture guessing, learning remains less optimal due to limited interactive and engaging materials. Student engagement also tends to fluctuate, with many learners losing focus during lessons. While storybooks and flashcards help introduce basic vocabulary, they are insufficient to maintain interest or support meaningful learning. In addition, interaction during shared reading is still limited, reducing opportunities for active participation and language development. Environmental education related to SDG 14 has also not been effectively integrated into language learning, despite being introduced in general topics. Teachers, however, view the development of SDG 14-based Big Books positively, as they may enhance engagement, support shared reading, and build environmental awareness. In conclusion, there is a gap between current practices and ideal early literacy instruction, making the development of SDG 14-based Big Books highly recommended to provide engaging, meaningful, and age-appropriate learning experiences.

REFERENCES

- Andini, D., Dewi, A. I., Hariana, K., & Aqil, M. (2025). *ANALISIS PENGGUNAAN MEDIA BIG BOOK TERHADAP MINAT MEMBACA PESERTA DIDIK DI KELAS II SD INPRES 3 TONDO PALU*. 13, 1–8.
- Andriamahefazafy, M., Touron-gardic, G., March, A., Hosch, G., & Palomares, M. L. D. (2022). Sustainable development goal 14 : To what degree have we achieved the 2020 targets for our oceans? *Ocean and Coastal Management*, 227(January), 106273. <https://doi.org/10.1016/j.ocecoaman.2022.106273>
- Andriamahefazafy, M., Touron-Gardic, G., March, A., Hosch, G., Palomares, M. L. D., & Failler, P. (2022). Sustainable development goal 14: To what degree have we achieved the 2020 targets for our oceans? *Ocean and Coastal Management*, 227(July), 106273. <https://doi.org/10.1016/j.ocecoaman.2022.106273>
- Cárdenas, K., Moreno-núñez, A., Miranda-zapata, E., & Harris, Y. R. (2020). *Shared Book-Reading in Early Childhood Education: Teachers ' Mediation in Children ' s Communicative Development*. 11(September), 1–21.

<https://doi.org/10.3389/fpsyg.2020.02030>

Development, S. (n.d.). *Education for Sustainable Development A roadmap*.

Education, S., Goals, S. D., & Objectives, L. (n.d.). 1 . 2 . 14 . *SDG 14 | Life below Water | Conserve and sustainably use the oceans , seas and marine resources for sustainable development*. 38–41.

Ika, Y., Sari, H., Wienanda, W. K., Nugraheni, N. E., Persatuan, J., & Sari, B. (2020). *NEED ANALYSIS TO DEVELOP TEACHING MATERIALS AT VOCATIONAL COLLEGE UGM*. 10(2), 138–149.

Marlina, V. E., Awal, V., Melvita, V., & Interest, R. (2024). *Jurnal Profesionalisme Guru The Use of Big Book Media in Improving Reading Interest*. 1(1), 160–166.

Mayer, R. E. (2024). The Past , Present , and Future of the Cognitive Theory of Multimedia Learning. *Educational Psychology Review*, 36(1), 1–25.
<https://doi.org/10.1007/s10648-023-09842-1>

Neite, D., Muyapa, E. F., Dina, E., Singgamui, L., Raraawi, V., Mote, M., & Bonai, S. (2024). *BIG BOOK MEDIA AS A LITERACY INTERVENTION IN PRIMARY CLASSROOMS : IMPROVING READING OUTCOMES*. 371–377.

Neumann, M. M. (2020). Social Robots and Young Children's Early Language and Literacy Learning. *Early Childhood Education Journal*, 48(2), 157–170.
<https://doi.org/10.1007/s10643-019-00997-7>

Rizka, N. (2020). *The Effect of the Storytelling Method Using Bigbook on the Language Ability of Children Aged 5-6 Years in Group B TK Mutiara Bunda Bangkinang*. 449(Icece 2019), 110–115. <https://doi.org/10.2991/assehr.k.200715.022>

Suras, F. E., Pamungkas, J., & Rolina, N. (2025). Reading Literacy: Exploring the Potential of School to Support Children's Literacy Development. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 13(1), 188–197. <https://doi.org/10.23887/paud.v13i1.86957>

Susanti, E. R. (2020). Using Big Books to Promote the Elementary School Students' Participation in English Classes. *PANYONARA: Journal of English Education*, 2(2), 97.
<https://doi.org/10.19105/panyonara.v2i2.3620>

Weadman, T., Serry, T., & Snow, P. C. (2023). *Oral Language and Emergent Literacy Strategies Used by Australian Early Childhood Teachers During Shared Book Reading*. 1335–1348.