

Developing a Bintan Island Fairy Tale Book to Enhance Early Childhood Social-Emotional Development

Awlya Nanda Awhar¹, Chandra Apriyansyah^{2*}, Nita Priyanti³

Program Studi Magister Pendidikan Anak Usia Dini, Universitas Panca Sakti Bekasi, Bekasi, Indonesia

Article Info

Article history:

Received: 2 April 2026

Publish: 1 July 2026

Keywords:

Fairy Tale Books;

Local Wisdom;

Social-Emotional;

Early Childhood;

Bintan Island.

Abstract

This study aims to analyze the factual conditions of social-emotional learning for children aged 5–6 years, develop a storybook based on the local wisdom of Bintan Island, test the feasibility of the product, and evaluate its effectiveness. The study used the Research and Development method with the 4D model (Define, Design, Develop, Disseminate), which was implemented at YKPP Tanjung Uban Kindergarten, Bintan Regency, in March–May 2025. The subjects of the study were 24 children in group B. Data were collected through observation, interviews, documentation, and expert validation sheets; then analyzed descriptively, thematically, and gain score. The results showed that 62.5% of children had not achieved optimal social-emotional development, with self-control as the lowest indicator (47.9%). The product developed was a 20-page A4 landscape format storybook with five marine biota characters from Bintan Island and a teacher's guide. The product's feasibility was in the very feasible category with an average of 94.6% (content experts 93.3%; language experts 95.0%; media experts 95.6%). The effectiveness test showed an increase in the average score from 25.75 to 41.25, with a 69.7% gain in the medium category. Qualitative findings also demonstrated the transfer of learning to children's real-life behavior. Therefore, the storybook based on local wisdom from Bintan Island is suitable and effective as a social-emotional learning medium for early childhood.

This is an open access article under the [Lisensi Creative Commons Atribusi-BerbagiSerupa 4.0 Internasional](https://creativecommons.org/licenses/by-sa/4.0/)



Corresponding Author:

Awlya Nanda Awhar

Program Studi Magister Pendidikan Anak Usia Dini, Universitas Panca Sakti Bekasi, Bekasi, Indonesia

Email: awlya.nanda@gmail.com

1. INTRODUCTION

Social-emotional development is one of the main foundations of early childhood education because it influences a child's readiness to interact, manage emotions, build empathy, and adapt to learning situations. In the Indonesian context, this aspect is also emphasized as a crucial developmental domain in early childhood education standards. However, learning practices often emphasize early cognitive and academic achievements, while structured social-emotional stimulation has not always received adequate attention.

This problem was also found at YKPP Tanjung Uban Kindergarten in Bintan Regency. Initial observations showed that social-emotional learning was still occurring incidentally and was not supported by media specifically designed for this purpose. Of the 24 children observed, 62.5% had not demonstrated optimal social-emotional development, and self-control was identified as the weakest indicator. These findings highlight the need for concrete interventions that are developmentally appropriate and relevant to their lives.

At the institutional level, the school actually has 23 children's storybook titles, but only five explicitly address social and emotional values, and none integrate local Bintan

Island wisdom. Teachers expressed the need for media that are easy to use, engaging for children, explicitly address the values of empathy, sharing, cooperation, and self-control, and are equipped with practical user guides. This gap suggests that the problem lies not simply in the number of books, but rather in the lack of media that truly aligns with developmental goals and the local cultural context.

For young children, stories are a highly relevant pedagogical medium because they present values in a concrete, imaginative, and emotionally engaging way. Through stories, children can identify characters, conflicts, feelings, and solutions in a way that's more easily understood than direct advice. Storybooks also allow teachers to combine discussion, role-playing, reflection, and follow-up activities into one cohesive learning experience. Therefore, storybooks can function not only as a literacy medium but also as a medium for social and emotional development.

The use of local wisdom further strengthens the pedagogical value of media. Cultural elements close to children's lives make stories easier to understand, more meaningful, and more memorable. In this study, the marine environment of Bintan Island, the local social atmosphere, and the rich biota typical of the region are transformed into settings, characters, and social situations within the story. With this approach, local culture is not merely seen as decoration but as a pedagogical gateway for social-emotional learning.

Various previous studies have shown that role-playing, storytelling, and story-based media can support children's moral and socio-emotional development. However, much of this research focuses on implementing methods or utilizing readily available story materials. Relatively few studies have developed new storybooks specifically aimed at enhancing socio-emotional development while incorporating local wisdom as the conceptual core of the media. It is to this end that this research makes its primary contribution.

The novelty of this research lies in three aspects. First, the product is specifically designed to stimulate the social-emotional indicators of children aged 5–6, not just general character values. Second, the storybook integrates local wisdom from Bintan Island through marine life characters, settings, and social situations that are close to children's experiences. Third, the product is equipped with a teacher's guide, reflective questions, and follow-up activities so that the story can be used as a structured learning medium, not just entertainment.

Based on these considerations, this study aims to: (1) analyze the factual conditions of children's social emotional learning, (2) develop a Bintan Island story book product, (3) test the feasibility of the product through expert validation, and (4) evaluate its effectiveness in improving the social emotional development of children aged 5-6 years at YKPP Tanjung Uban Kindergarten.

Table 1. Summary of previous research and research novelty

No	Study	Focus/Method	The Gaps This Research Fills
1	Role play for early childhood social and emotional development	Two-cycle PTK; focus on improving social-emotional behavior	This research not only applies the method but also develops a new storybook product based on the local wisdom of Bintan Island.
2	Edutainment storytelling and	Quasi-experimental; testing the influence of existing storytelling	This research resulted in new media specifically designed for the

	social-emotional development		social-emotional target of children aged 5–6 years.
3	Development of ancient fairy tales for moral values	R&D; development of anti-violence themed fairy tales	This research emphasizes the integration of the local wisdom of Bintan Island and implementation guidelines for teachers.
4	Fairy tale books for children's social values/character	Qualitative/descriptive study; using existing books	This research develops a new contextual product and tests its feasibility and effectiveness.
5	Storybook media for other developmental aspects	R&D: focus on literacy or positive emotions	This research specifically targets comprehensive social-emotional development in the context of PAUD Bintan.

2. RESEARCH METHODS

This study used the Research and Development (R&D) method with the 4D model, which includes the define, design, develop, and disseminate stages. This model was chosen because it is suitable for the development of learning products that begin with needs analysis, followed by product design, validation, and revision, and limited implementation testing. The study was conducted at YKPP Tanjung Uban Kindergarten, Bintan Regency, Riau Islands Province, from March to May 2025. The research subjects were 24 group B children aged 5–6 years. At the needs analysis stage, data were also obtained from learning observations, an inventory of media available at the school, and in-depth interviews with three class teachers.

The product developed is a 20-page A4 landscape-sized storybook entitled *Friendship at the Bottom of the Bintan Sea, Dina and Friends*. The book is designed with five marine life characters representing the values of empathy, cooperation, sharing, self-confidence, self-control, and conflict resolution. The product also includes a teacher's guide, reflection pages, follow-up activities, and a simple glossary. The research instruments consist of a child's social-emotional development observation sheet, a content/PAUD content expert validation sheet, a language expert validation sheet, a media expert validation sheet, an interview guide, and documentation. Expert validation was conducted to assess the suitability of the content, language, and visual appearance of the product before being tested on children.

Quantitative data were analyzed using descriptive statistics to calculate the percentage of feasibility and improvement in pretest-posttest scores. Product effectiveness was analyzed using a gain score based on the Hake formula. Qualitative data from observations, interviews, and implementation notes were analyzed thematically through data reduction, data presentation, and conclusion drawing.

Ethically, the research was conducted after obtaining permission from the educational institution and approval from relevant parties. Children's identities were kept confidential, and all learning activities were conducted in accordance with the developmental characteristics of early childhood through safe, enjoyable, and non-stressful activities.

3. RESULTS AND DISCUSSION

3.1. Needs Analysis and Product Development

A needs analysis shows that the development of social and emotional media in schools remains incidental. Teachers typically instill social and emotional values

through free play, circle time, or daily conflict resolution, but lack a systematically designed, dedicated media platform. In terms of resources, schools have storybooks and hand puppets, but no media explicitly targeting social and emotional development while incorporating local content from Bintan Island.

Based on these needs, researchers developed the storybook *Friendship at the Bottom of the Bintan Sea, Dina and Friends*. The story features marine life characters living in Bintan's waters who face social situations close to children's experiences, such as sharing, dealing with differences, waiting their turn, collaborating, and resolving conflicts. Thus, the product is not only entertaining but also provides concrete social-emotional learning scenarios. The book is designed to be predominantly visual, using brightly colored illustrations, easy-to-read typography, and a simple, progressive storyline. Each section of the book is linked to a specific pedagogical objective. The teacher not only reads the story but also invites children to reflect on the characters' feelings, imitate appropriate responses, and carry out follow-up activities, making the transfer of learning to everyday behavior more likely.

Table 2. Core components of the Bintan Island fairy tale book and its pedagogical function

No	Component	Pedagogical Function
1	Title and cover visual	Building children's initial attraction and introducing the marine nuances of Bintan Island.
2	Character and figures page	Help children recognize the characters, traits, and social-emotional values represented.
3	Synopsis and storyline	Setting children's expectations for conflict, emotions, and resolution in stories.
4	Fill in the picture story	Becoming the primary medium for instilling empathy, cooperation, sharing, and self-control.
5	Reflection page	Guide children to discuss the characters' feelings and relate them to real experiences.
6	Teacher's guide and advanced activities	Assist teachers in conducting interactive reading, discussions, and follow-up learning.

Table 3. Recapitulation of expert validation results for the Bintan Island fairy tale book

Validator	Percentage (%)	Category	Key Notes
PAUD content expert	93,3	Very worthy	Content according to social-emotional indicators and local wisdom context.
Linguist	95,0	Very worthy	Simple, communicative, and age-appropriate language.
Media member	95,6	Very worthy	Attractive visuals, balanced layout, and expressive illustrations.
Rerata	94,6	Very worthy	The product meets the eligibility requirements for content, language, and visual appearance.

3.2. Product Effectiveness

A limited trial showed that storybooks based on local wisdom from Bintan Island had a positive impact on children's social and emotional development. The average total score increased from 25.75 in the pretest to 41.25 in the posttest. Percentage-wise, achievement increased from 53.6% to 85.9%, representing an absolute increase of

15.50 points. These results indicate that after the intervention, children were better able to recognize emotions, cooperate, share, wait their turn, and manage their social responses.

The gain score analysis yielded a score of 69.7%, which falls within the medium category and approaches the high category. Consistent improvement occurred across all measured indicators. Self-control, which initially had the lowest score (47.9%), increased to 81.3%. The indicator with the highest increase was self-confidence, with a gain score of 75.1%, followed by sharing/waiting one's turn (72.9%), and empathy (70.8%). This pattern demonstrates that media works well on both intrapersonal and interpersonal aspects.

Qualitative findings corroborated the quantitative results. During implementation, children began to use references to story characters in their interactions, for example, imitating the characters' patient, kind, or sharing behaviors. Teachers also reported that children were more receptive to discussing feelings and conflicts after the storytelling activity because they had concrete examples from the storyline. This means that the product's effects extend beyond scores and are evident in more tangible behavioral changes.

Table 4. Comparison of pretest, posttest, improvement, and gain score results

Component	n	Pretest	Posttest	Improvement	N-Gain	Category
Social-emotional average score	24	25,75	41,25	15,50	69,7%	Medium
Self-control (lowest initial indicator)	24	47,9%	81,3%	33.4 points	64,0%	Medium
Confidence (highest gain)	24	—	89,6%	—	75,1%	Medium–high

Table 5. Improvement in key social-emotional indicators

No	Indicator	N-Gain / Findings
1	Self-confidence	75.1% (highest increase)
2	Sharing/waiting for turn	72,9%
3	Empathy	70,8%
4	Self-control	64.0% (lowest baseline, but largest absolute increase)

3.3. Discussion

Research findings confirm that story-based media can be an effective tool for social-emotional learning in early childhood education (PAUD). The main strength of this storybook lies in its ability to present social-emotional values in a narrative form that is close to the child's world. Children do not receive abstract advice, but learn through characters, conflicts, and problem-solving that they can imagine and feel. From an instructional design perspective, the product's success is also related to the book's

structure, which extends beyond the main story. The presence of teacher guides, reflective questions, follow-up activities, and a local glossary makes this media easier to integrate into daily learning practices. Thus, the book functions as both a medium and a scenario for pedagogical interaction between teachers and children.

The use of local wisdom from Bintan Island is a key differentiator in this study. Local content is not merely ornamental, but rather provides a context that makes the story more relevant and meaningful for children. When the characters, settings, and social experiences in the story feel close to children's lives, the process of identifying and internalizing values tends to be stronger. This finding supports the importance of contextual learning media in early childhood education. The highly successful expert validation results indicate that the product is not only visually appealing but also meets the demands of content, language, and child development. This means that the effectiveness found does not stand alone but is supported by the quality of the product design, which has undergone a revision process based on validator input. In development research, consistency between design quality and implementation results is an important indicator that a product is indeed suitable for use.

The medium gain score should be interpreted proportionally. In the context of social-emotional development, changes in children's behavior do not always occur instantly, requiring habituation, repetition, and reinforcement across various situations. Therefore, the 69.7% achievement represents a realistic and promising result for an intervention conducted over a relatively limited period of four weeks or twelve sessions. However, the effectiveness results remain limited. The study used a one-group pretest-posttest pre-experimental design without a control group, so score increases cannot be fully separated from factors external to the intervention. Furthermore, the trial was conducted at a single institution with a limited number of subjects. Therefore, further research with a more robust experimental design and a broader sample size is needed.

From a practical perspective, this research implies that social-emotional learning should not be separated from children's cultural experiences. Storybooks based on local wisdom can be an alternative medium that is inexpensive, flexible, and easily replicated by teachers. Such media also has the potential to strengthen the implementation of the Pancasila Student Profile from an early age by connecting value learning with real-life social and cultural contexts. Thus, the primary contribution of this research is not only the creation of a storybook but also the proposal of a media development model that integrates social-emotional values, story pedagogy, and local wisdom. This combination makes the product relevant for early childhood education units (PAUD) that require contextual media to strengthen children's development more holistically.

4. CONCLUSION

This study demonstrates that the Bintan Island storybook was successfully developed using the 4D model as a contextual, engaging, and appropriate social-emotional learning medium for children aged 5–6 years. A needs analysis revealed a gap between the need for social-emotional learning and the availability of media in schools, thus providing a strong empirical basis for the development of this product.

In terms of feasibility, the product achieved an average validation score of 94.6%, categorized as highly feasible. In terms of effectiveness, limited trials showed an increase in the average score from 25.75 to 41.25, with a gain of 69.7%, categorized as medium. These findings indicate that the product has real potential to support children's social and

emotional development, particularly in the areas of self-confidence, sharing, empathy, and self-control.

However, interpretation of effectiveness still requires proportionate consideration due to the pre-experimental nature of the study design and limited sample size. Further research is recommended using a control group, a longer intervention duration, and a more diverse school context. Overall, however, storybooks based on local wisdom from Bintan Island can be recommended as a social-emotional learning medium in early childhood education (PAUD).

5. BIBLIOGRAPHY

- Arsyad, A. (2011). *Media pembelajaran*. PT Raja Grafindo Persada.
- Asnawir. (2015). *Media pembelajaran dan teknologi komunikasi pendidikan*.
- D'Angelo, T., Bunch, J. C., & Thoron, A. C. (2018). Instructional design using the Dick & Carey systems approach. EDIS. <https://doi.org/10.32473/edis-wc294-2018>
- Darling-Churchill, K. E., & Lippman, L. (2016). Early childhood social and emotional development: Advancing the field of measurement. *Journal of Applied Developmental Psychology*. <https://doi.org/10.1016/j.appdev.2016.02.002>
- Denham, S. A., Bassett, H. H., Thayer, S. K., Mincic, M. S., Sirotkin, Y. S., & Zinsser, K. (2012). Observing preschoolers' social-emotional behavior: Structure, foundations, and prediction of early school success. *Journal of Genetic Psychology*. <https://doi.org/10.1080/00221325.2011.597457>
- Hake, R. R. (1999). *Analyzing change/gain scores*. Indiana University.
- Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and future public health. *American Journal of Public Health*. <https://doi.org/10.2105/AJPH.2015.302630>
- Junaidi, J. (2019). Peran media pembelajaran dalam proses belajar mengajar. *Diklat Review*. <https://doi.org/10.35446/diklatreview.v3i1.349>
- Martinson, B., Supe, I., Stokenberga, I., Damberga, I., Cefai, C., Camilleri, L., Bartolo, P., O'Riordan, M. R., & Grazzani, I. (2022). Social emotional competence, learning outcomes, emotional and behavioral difficulties of preschool children. *Frontiers in Psychology*.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.
- Nurmadiyah, N. (2016). *Media pendidikan*. Al-Afkar: Jurnal Keislaman & Peradaban. <https://doi.org/10.28944/afkar.v5i1.109>
- Satriana, M., Haryani, W., Jafar, F. S., Maghfirah, F., Sagita, A. D. N., Sophia, S., & Septiani, F. A. (2022). Media pembelajaran digital dalam menstimulasi keterampilan literasi anak usia 5–6 tahun. *Jurnal Pendidikan Anak Usia Dini Undiksha*.
- Smaldino, S. E., Lowther, D. L., & Russell, J. D. (2011). *Teknologi pembelajaran dan media untuk belajar*. Kencana.
- Suryadi, A. (2020). *Teknologi dan media pembelajaran*. CV Jejak.
- Wahyuni, I. (2018). *Pemilihan media pembelajaran*. Jurnal Pendidikan.
- Yudha, R. P. (2020). *Asesmen unjuk kerja geometri*. CV Budi Utama.