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Implementation of Environmental Education Textbooks to Enhance Learning Through Local Content in Selected Schools

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Abstract

As an effort to address issues in the local content subject, an Environmental Education (PLH) textbook has been developed as a teaching material to support local content learning activities in schools. This community service aims to provide PLH books on local content subjects for students and teachers in Timpah District, Kapuas Regency, Central Kalimantan. The development of these textbooks involved a participatory approach. The evaluation method included observing how teachers and students utilized the PLH textbooks from 2022 to 2024. Data collection used a Likert scale-based checklist, with further analysis conducted using the Mann-Whitney U test and effect size (r) test. Results from the community service highlighted the availability of 6 PLH textbooks. The evaluation showed an average Likert scale score increase from 2.91 in 2022 to 3.31 in 2024, indicating a growing usage of PLH textbooks in learning settings. Meanwhile, the results of the Mann-Whitney test state a significant difference between 2022 and 2024 in the increase in the implementation of PLH books within two years. The results of the Effect Size Test (Effect Size - r) state that major changes in the implementation of PLH books occurred within 2 years (2022 to 2024), which is included in the classification of moderate influence with r = 0.41. In conclusion, the findings of the community service program suggest that implementing PLH textbooks plays a vital role in strengthening local content learning in schools.

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INTRODUCTION

Local content is integral to the educational curriculum to foster student competencies that reflect regional characteristics and potential. This subject instills the values of local wisdom, culture, and environmental appreciation, enabling students to understand their surroundings better (Kamila et al., 2024; Noor & Sugito, 2019; Sartika & Semiaji, 2024). Moreover, local content equips students with practical skills that benefit everyday life and promote sustainable development.

In Indonesia, the implementation of local content is governed by various regulations. The Regulation of the Minister of Education and Culture (Permendikbud) Number 79 of 2014 pertaining to Local Content in the 2013 Curriculum underscores the importance of

locally based curriculum in enhancing student competencies. In Central Kalimantan, this initiative is further reinforced by the Governor's Regulation Number 22 of 2011 and the Regent's Regulation Number 25 of 2016, which outline the procedures for implementing the local content curriculum. However, the execution of local content faces significant challenges. Based on the observations and interviews by the community service team with teachers and principals in Timpah in 2021, it was stated that the main obstacles faced were the lack of teaching materials for regional needs and the lack of competent teachers to teach local content. The results of research by Fauzi et al. (2022), Jafar & Yulida (2021), and Susilawati et al. (2020) stated that the challenges of implementing local content in many areas were the lack of teaching materials and teachers who were competent. As a result, the delivery of local content learning has not been optimized and has not received sufficient attention. To address these issues, it is essential to develop teaching materials that can be utilized by both teachers and students in the learning process.

Environmental Education (PLH) emerges as a pertinent topic that needs to be integrated into local content. The objective of PLH is to heighten students' awareness of environmental concerns, facilitate an understanding of mankind's role in maintaining ecosystem balance, and cultivate an early sense of environmental stewardship (Jurdil et al., 2025; Putra, 2021; Rahmayanti & Ilyasa, 2022) Thus, the creation and implementation of PLH textbooks within schools are crucial for reinforcing local content learning. To support the integration of PLH within local content, the Borneo Orangutan Survival Foundation (BOSF) has undertaken the initiative to develop PLH textbooks for educational institutions in Timpah District, Kapuas Regency, Central Kalimantan. BOSF collaborates with various stakeholders, including local governments, schools, and educators, to craft teaching materials tailored to meet students' needs and the local environment's specific context. Following their development, these textbooks undergo testing and evaluation to determine their effectiveness in the educational setting.

This community service aims to supply PLH books for students and teachers while assessing their implementation to enhance educational outcomes (Rasyid et al., 2025). Teachers and students are evaluated on implementing PLH books in their schools. Community service can provide valuable recommendations for future developments and encourage the effective implementation of environmental education within schools.

METHODS

Community service was carried out in several elementary and middle schools in Timpah District, Kapuas Regency, Central Kalimantan. The activity subjects included teachers and students in grades 4, 5, and 6 for the elementary school level and students in grades 7, 8, and 9 for the junior high school level who used PLH textbooks for local content subjects. The activities were conducted over three years, from January 10, 2022, to December 31, 2024. The community service method used is participatory action research (PAR) because the implementation of PLH textbooks involves teachers, students, and the school community in the cycle of planning, implementation, reflection, and improvement actively (Khoiri et al., 2024; Mas'udah et al., 2024). The stages of the activity consisted of three main phases (Effendi et al., 2023):

Socialization and Coordination with Stakeholders

The mapping of stakeholders involved in preparing PLH textbooks is conducted to streamline the socialization and coordination of activities. This process produces three key outputs: a stakeholder matrix, a decree establishing the PLH textbook preparation team, and a cooperation document between the school and BOSF activity implementers.

Implementation of textbooks

The implementation stage of the textbook is carried out through several steps, namely the preparation of ATP (The Learning Objek Flow). ATP is a series of systematically and progressively structured learning objectives designed to achieve the competencies expected in the curriculum (Susanti et al., 2022). Data collection, preparation of textbooks in a participatory manner, public discussion, revision based on input, and trial use of textbooks in pilot project schools. This activity produces two main outputs: PLH textbooks and local content schedules containing PLH materials.

Evaluation of activity implementation

The evaluation of implementing PLH textbooks in pilot project schools was conducted through observation (Ambarwati et al., 2022). This process aimed to assess the activities of teachers and students in using PLH textbooks within local content subjects. The observation was carried out by a study team of three members and three teachers who were not involved in teaching local content at the pilot project schools. Before conducting the observation, all observers underwent training to ensure a standardized understanding of observation procedures, measurement instruments, and assessment criteria. This step was essential to ensure the validity and reliability of the collected data.

Observations were conducted annually in November of 2022, 2023, and 2024, using a modified checklist instrument based on a Likert scale, as presented in Table 1 and 2 (Hassan, 2021). Data analysis follows the methodology established by Bartlett et al. (2024). The collected data were categorized and tabulated. Then comparing the implementation of PLH books in schools in Timpah between pairs of years 2022 VS 2023, 2022 vs 2024, and 2023 vs 2024, analyzing it using the paired Mann-Whitney U test. Furthermore, the effect size test (Effect Size - r) was carried out to measure the impact of implementing PLH books in schools. Statistical analysis was conducted using SPSS software version 29.0.0.

Table 1 Likert scale and scores

Answer options	Numerical score	Interpretation
Never	1	PLH textbooks are never used.
Seldom	2	PLH textbooks are used occasionally, but not routinely.
Frequently	3	PLH textbooks are used regularly in learning.
Always	4	PLH textbooks are always used in every learning.

Interpretation of scores is shown in Table 2.

Table 2 Interpretation of scores

Answer options	Average score	Interpretation
Never	1.00-1.99	The findings indicate that PLH textbooks are rarely used by teachers in the learning process.
Seldom	>1.99-2.00	This indicates that using PLH textbooks is still low and has not become a main part of teaching.
Frequently	>2.00-3.99	This indicates that PLH textbooks have been used frequently and have become an integral part of learning.
Always	>3.99-4.00	This indicates that the PLH textbook has been fully integrated into local content learning.

RESULTS AND DISCUSSION

Socialization and Coordination of Activities

Implementing PLH textbooks in local content subjects across several schools began with a stakeholder mapping process to identify those involved in the activity. Table 3 presents a complete overview of the stakeholder mapping results. This mapping aims to identify and understand various stakeholders' roles, influence, and needs (Cuker & Hájek, 2024; Hoang et al., 2024). This process enables the development of effective strategies to strengthen local content subjects with PLH materials supported by PLH textbooks.

Table 3 Stakeholder mapping for the implementation of PLH textbooks

No	Stakeholders	Roles and responsibilities	Engagement Strategy
1.	Kapuas Regency Education Office	1.1 Develop education policies related to local content. 1.2 Provide guidance and training for teachers in implementing PLH.	a. Conduct routine coordination with schools. b. Provide necessary resources and training.
2.	Timpah District Education Coordinator	Coordinating with elementary and middle schools on the implementation of the PLH textbook use.	a. Conduct routine coordination with the Department of Education and schools. b. With BOSF
3.	Headmaster a). SDN 1 Timpah, b). SDN 2 Timpah, c). SDN 3 Timpah, d). SDN 1 Lawang Kajang e). SDN 3 Lawang Kajang, f). SMPN 1 Timpah, g). SMPN 4 Timpah Satu Atap	3.1 Integrating PLH into the school curriculum. 3.2 Preparing a schedule of local content subjects with PLH material 3.3 Support teachers in implementing PLH learning.	a. Encourage and facilitate teacher training. b. Ensure the availability of PLH textbooks and demonstration tools.
4.	Elementary and middle school teachers who are pilot projects	4.1 Implement PLH learning according to the curriculum. 4.2 Develop interactive and contextual teaching methods.	a. Participate in training related to PLH. b. Collaborate with other stakeholders to improve the quality of learning.
5	Elementary and Middle School Committee	5.1 Support the implementation of PLH through participation and supervision. 5.2 Provide input from the perspective of parents and the community.	a. Holding regular meetings with the school. b. Encouraging parental participation in PLH activities.
6.	Parents of elementary and middle school students	6.1 Supporting PLH learning at home. 6.2 Encouraging children's participation in environmental activities.	a. Participate in school activities related to PLH. b. Provide feedback to teachers and schools.
7.	Community leaders, traditional leaders, and religious leaders	7.1 Convey the importance of environmental education to the community and parents of students. 7.2 Encourage active community participation in supporting PLH programs in schools.	Participate as a source of learning in PLH b. Regular meetings with the community to socialize the PLH program and its benefits.
8.	Timpah District Government	8.1 Support environmental education policies at the local	a. Collaborate with schools in environmental programs.

No	Stakeholders	Roles and responsibilities	Engagement Strategy
		level. 8.2 Provide facilities and resources for environmental education activities.	b. Support school initiatives related to PLH through local policies.
9.	College	9.1 Develop and provide PLH textbooks tailored to the needs of elementary and junior high school students. 9.2 Research to assess the effectiveness of PLH textbook implementation and provide improvement recommendations based on the findings.	a. Establish partnerships with schools to understand their needs and adapt relevant and contextual PLH teaching materials. b. Provide mentoring to teachers in implementing PLH textbooks and innovative teaching methods.
10.	BOSF	10.1 Contribute to developing PLH teaching materials that are contextual and relevant to local conditions. b. 10.2 Organize training and workshops for teachers to improve competency in teaching PLH, including interactive and participatory learning methods.	a. Establish formal cooperation with schools to integrate PLH programs into the local content curriculum. b. Provide modules, textbooks, and demonstration tools in accordance with the needs of environmental education at the elementary and junior high school levels.

After identifying the stakeholder mapping, the next step is to coordinate with key stakeholders with high influence and interest, including the Kapuas Regency Education Office, the Timpah Subdistrict Education Coordinator, and elementary and middle school principals and teachers involved in the pilot project. Coordination is carried out regarding the implementation plan for developing the PLH textbook with school principals and teachers.

Additionally, to inform them about the planned activities, socialization is conducted with stakeholders who have moderate influence and interest, such as the school committee, community leaders, village and subdistrict governments, and higher education institutions. The results of the coordination and socialization indicate strong support from stakeholders for the implementation of the project. This is evidenced by the issuance of the Kapuas Regency Education Office Decree No. 420/110/SK/DISDIK/2022, dated October 17, 2022, regarding the establishment of the PLH textbook development team for local content subjects in Timpah Subdistrict, Kapuas Regency, in 2022. Furthermore, a collaboration agreement was established between the pilot project schools and BOSF as the implementing party, which was formalized through a Memorandum of Understanding (MoU).

Preparation and Implementation of PLH Textbooks

The preparation of PLH textbooks was carried out in a participatory manner involving teachers, community leaders, traditional and religious leaders, academics, village and community governments, and environmentally concerned NGOs. The preparation refers to the Independent Curriculum and the stages of its preparation as follows:

a. Preparation of ATP

The preparation of ATP (Learning Objective Flow) in local content subjects aims to have local content subjects develop competencies, achieve Learning Outcomes (CP), provide a learning planning framework, ensure consistency of subject matter, and support the principle of Independent Learning (Salamah et al., 2023). The preparation of ATP contains three basic elements: culture, social, and environment (Læssøe, 2010; Wolff, 2016; Druker-Ibanez & Caceres-Jensen, 2022). And also refers to the GBPP (Outlines of the Teaching Program). Regulation of the Governor of Central Kalimantan Number 22 of 2011 concerning procedures for implementing the local content curriculum. Preparation of ATP 30 days effective. The compiled local content ATP document is the basis for compiling PLH textbooks. The PLH textbook is used as teaching material for local content subjects. ATP is divided into Phase B for grades 4 of elementary school, Phase C for grades 5 and 6, and Phase D for grades 7, 8, and 9 of junior high school. The content of the PLH subject matter, based on the phase, is shown in Table 4.

Table 4 Phase, class, and content of PLH subject matter

No	Phase	Class	Subject matter
1.	B	4th	Family, Kapuas Regency society, social institutions, environment, customs, *Pali* (customary prohibition), and vocabulary in Dayak stories in Kapuas Regency
2.	C	5th	The history and struggle of the Dayak tribe in NKRI, the establishment of Kapuas Regency, and its development. ~~Sejarah~~
3.	C	6th	Folk songs, Traditional musical instruments, Traditional dances, Fine arts, Cultural ties of the Dyak Ngaju tribe with forests and rivers, Agricultural equipment, transportation, hunting, health, war, health, communication, mining, sports, and cooking food preservation
4.	D	7th	General image of Kapuas Regency, Natural resources for food, medicine, housing, and renewable energy
5,	D	8th	Dayak tribe customs as a guide to life, traditional ceremonies in Kapuas district, customary law, and legal protection of endangered animals. Traditional musical instruments
6.	D	9th	Traditional sports do not use tools, local technology, traditional clothing, or local cuisine.

b. Preparation of PLH Textbooks

The process of preparing PLH textbooks is also carried out in a participatory manner; there are eight stages of activities, which are as follows:

Data Collection

Data was collected from relevant references, including research reports, textbooks, and research journals, as well as photos obtained from field observations or written documents. The data in Table 4 were adjusted for ATP and learning materials.

Drafting of textbooks

Table 3 shows the book headline framework drafted according to the ATP phase, class, and subject matter. Then, the book was compiled, supported by the collected data and photos. The layout of the text and images was designed. A textbook format was made according to age and academic ability, generally consisting of an introduction, subject matter accompanied by illustrations, sample questions, practice questions, a summary, an evaluation, and a competency test. Compiling the book took two months.

Public Discussion

The draft book that was prepared was then discussed publicly, aiming to get constructive feedback from the discussion participants so that the feasibility and shortcomings of the PLH textbook could be known. The participants in the public discussion were the relevant stakeholders.

Revision of the Textbook

The results of public discussions on the draft of the PLH textbook certainly provided many constructive inputs to improve its content and material. Therefore, revisions were needed systematically and measurably based on the results of the public discussion. Then, the draft of the PLH textbook was printed.

Training on the Use of PLH

Textbooks are conducting training on the use of PLH textbooks for teachers who teach local content at both elementary and junior high school levels. It is expected that teachers are skilled in using PLH textbooks in content, question writing, and competency tests because teachers who are skilled in using PLH textbooks make students interested in taking local content lessons.

Trial of the use of PLH textbooks

PLH textbooks printed and distributed to teachers were tested in the teaching and learning process for elementary and junior high school students. The objectives of the trial use of PLH textbooks are (Ardoin et al, 2018; Jeronen et al., 2016; Tatin et al, 2024): to ensure that the contents of the textbooks are in accordance with the independent curriculum and ATP which are arranged in learning objectives, to measure the relevance of the material to students' needs and local environmental conditions, to find out to what extent students understand PLH material in the form of textbooks, to test the extent to which the language used is easy for teachers and students to understand, to assess the attractiveness of illustrations, layout and visuals by teachers and students, to obtain input from students and teachers regarding the weaknesses and strengths of textbooks and to observe changes in students' attitudes in applying PLH principles in everyday life.

Revision of PLH textbooks

Teachers and students have found some deficiencies in the PLH textbooks that have been tested. These deficiencies are a very important part of improving PLH textbooks so that the material can adapt to the development of science, technology, and current environmental issues and ensure that the textbook's content is relevant to the local, national, and global context. The function of revising the PLH textbook is to ensure that the textbook remains an effective tool for achieving PLH learning objectives.

Implementation of PLH textbooks

The PLH textbooks, ready to be printed, are tested again by teachers and students. And the principal makes a schedule for local content; in one week, there are 2 lesson hours. The local content subject material is PLH. Every teacher who teaches gets incentives from BOSF and support for activities relevant to implementing PLH activities. The use of books starts from June 2022 to December 2024. The output of the ATP document is used for the Independent Curriculum for Local Content at Elementary and Junior High School Levels, Timpah District, Kapuas Regency, Central Kalimantan. The ATP preparation process was carried out in a workshop with stakeholder participants, as shown in Figure 1a. Students also carry out practical activities in the field with external speakers such as

PPL from Buntol Barito Selatan, as shown in Figure 1b. Eligible books are then printed and get an ISBN.

(a) (b)

Figure 1 (a) A group photo with the Head of the Kapuas Education Office and (b) Students of SMPN 1 Timpah receive field instruction from PPL officers

Evaluation of Activity Implementation

The evaluation of the implementation of environmental education textbooks in strengthening local content lessons in several pilot project schools at the elementary and junior high school levels in Timpah District, Kapuas Regency, Central Kalimantan, was carried out using observation methods. The observations from 2022 to 2024 focused on using PLH textbooks by teachers teaching local content subjects and students receiving the lessons. The complete results of the observations are presented in Table 5.

Table 5 Average results of observations of the implementation of PLH textbooks in schools

No	Aspects observed	2022	2023	2024	% Change (2022-2024)
1.	Use of Books by Teachers				
1.1	Using PLH textbooks as the main reference	3.1	3.4	3.5	12.90
1.2	Explaining the concept of PLH based on the PLH book	2.9	3.0	3.1	6.90
1.3	Provides additional illustrations relevant to PLH	3.4	3.6	3.8	11.76
1.4	Motivate students to read and discuss the contents of the PLH book together	2.4	2.6	2.9	20.83
1.5	The assignments and exercises given by the teacher come from the PLH textbook.	2.7	2.9	3.1	14.81
2.	Student Participation in the Use of PLH Books				
2.1	During the lesson, students read the PLH textbook	2.7	2.9	3.0	11.11
2.2	Answering teacher and student questions using the PLH textbook as a source of answers	2.3	2.5	2.7	17.39
2.3	The contents of the PLH textbook become a topic of discussion for students.	2.1	2.4	2.5	19.05
2.4	Students understand PLH learning materials with the PLH textbook	2.9	3.2	3.4	17.24
2.5	The PLH textbook is interesting, so students are interested in using it.	2.8	3.0	3.1	10.71
3.	Quality of Textbooks in Learning				
3.1	The presentation can stimulate critical, creative, and innovative thinking.	3.2	3.4	3.8	18.75
3.2	The material's content is correct, accurate, and conceptual; the data is up-to-date and supports the achievement of national education goals.	3.6	3.7	3.9	8.33
3.3	The content encourages motivation for self-	2.9	3.0	3.4	17.24

No	Aspects observed	2022	2023	2024	% Change (2022-2024)
	development, independence, and innovation in students and teachers.				
3.4	The content and illustrations maintain national unity by accommodating diversity, mutual cooperation, and respect for differences.	3.4	3.8	3.9	14.71
3.5	The language is precise, straightforward, clear, and appropriate for the age of the students.	3.2	3.4	3.5	9.37
	Amount	43.60	46.80	49.60	211.10
	Average	2.91	3.12	3.31	13.76
	Standard deviation	0.42	0.43	0.44	4.29

Based on the analysis results in Table 5. There is an increase in the use of PLH textbooks every year from 2022 to 2024. The average score, which increased from 2.91 (2022) to 3.31 (2024), increased by 13.67%. Based on the Likert scale, it is classified as often used in PLH textbooks. The increase in the use of PLH textbooks from 2022 to 2024 is linked to teacher engagement, student participation, content quality, and alignment with national education goals. These results are consistent with educational research trends emphasizing teacher preparation, active learning, content relevance, and high-quality resources (Garrison & Anderson, 2004; Hattie, 2008; Mulyasa, 2014; Squire, 2005). However, several aspects have low scores, which are fully displayed in Table 6.

Table 6 Aspects and scores of PLH book users

No	Aspect	Scores (%)
1.	Explaining the concept of PLH based on the PLH book	6.90
2.	The PLH textbook is interesting, so students are interested in using it.	10.71
3.	The material's content is correct, accurate, and conceptual. The data is up-to-date and supports the achievement of national education goals.	8.33

The low percentage of changes in the three aspects is because teachers still use the lecture method compared to PLH textbooks Megahutami, 2022; Ruthanam et al., 2021; Salsabila et al., 2024). The lecture method is easy but reduces interaction and student-teacher participation, and inhibits the use of textbooks. Many illustrate the material based on personal experience, internet media, or other book sources that are not relevant to PLH; do not provide materials or teaching aids that are easy to use as interactive teaching materials; and teachers have not maximized the use of PLH textbooks as the main source of learning. PLH textbooks have not been printed and submitted to students as photocopies, so the book's appearance is still conventional and not visual. This impacts students' interest in PLH lessons (Cad et al., 2022). Otherwise, PLH books are still relevant and can be used as teaching materials in local content subjects, as shown by a change in use of 12.90%. The use of PLH textbooks in local content subjects has been used for 3 years, from 2022 to 2024, so we can find out how long the book has been used in what year. Based on the data from Table 5, it is possible to compare the implementation of PLH books between pairs of years using the Mann-Whitney U test and Effect Size - r analysis. The results of the analysis are presented in full in Table 7.

Table 7 Results of the mann-whitney u test analysis and the effect size test - r

Comparison	U-Value	p-Value	Effect Size (r)	Interpretation
2022 vs 2023	80.0	0.1819^{ns}	0.25	Small effect
2022 vs 2024	59	0.0273*	0.41	Current Effect
2023 vs 2024	82	0.2111^{ns}	0.23	Small effect

Description: ns = insignificant* = significant

The Mann-Whitney U test analysis results show no significant difference in the implementation of PLH books between 2022 and 2023 and between 2023 and 2024. While there is a significant difference between 2022 and 2024, which shows an increase in the implementation of PLH books within two years. The greatest increase occurred after 2023, because the difference between 2023 and 2024 was not significant. The results of the effect size r test support the results of the Mann-Whitney test, strengthening the results of the analysis that significant changes in the implementation of PLH books occurred within a period of 2 years (2022 to 2024), not in 1 year (2022 to 2023 or 2023 to 2024).

Based on the results of the analysis of Table 6, it can be interpreted that in implementing the use of PLH books as open materials in local cargo. The 2022-2023 period is relatively stable. It is still new to use PLH books and policies from the school that have not been maximally supportive; thus, new material becomes a workload for teachers and schools (Marques & Xavier, 2020; Longmuir & McKay, 2024). Also, local content lesson hours have not been recognized as part of the requirements for teacher certification, so some teachers have not maximally taught and used PLH books (Novitasari, 2024). In 2023-2024, there is no significant difference in that the use of PLH textbooks remains consistent, and the factors influencing the use of PLH textbooks are the same as in 2022-2023.

Period 2022-2024 shows a significant difference, with a real increase in using PLH textbooks for three years. This change is caused by the school providing policies that support the use of PLH textbooks, as well as BOSF's contribution to improving the content of PLH textbooks, increasing and distributing PLH textbooks, teacher training in the use of PLH textbooks, and intensifying the number of teachers who teach PLH. And BOSF helps student activities such as simultaneous lessons from related agencies about making compost, assistance in creating school gardens, trash bins, repairing toilets, renewable energy, namely solar energy, student activities such as environmental camping and school garden competitions, and field visits that are environmentally educational, and additional graves for students.

The conducting of joint evaluation and revision of the material in the PLH book aims to ensure continuous mutual improvement and updating of relevant material, and the latest environmental issues, and adjust to students' needs and interests. To increase the attractiveness and effectiveness of open books (Liu & Gao, 2020; Stern et al., 2014; Silva et al., 2019; Xiong & Mok, 2020). Teacher training must be carried out, especially in interactive teaching methods and using PLH textbooks effectively, to increase student involvement in learning (Muir et al., 2022; Pedler et al., 2020; Ong & Quek, 2023). Smart and skilled teachers who deliver PLH material with interesting techniques can motivate students to be more active in using textbooks. The availability of interactive modules, student worksheets, learning videos such as those about orangutans, and teaching aids that support PLH textbook materials helps students understand PLH concepts well and increases students' interest in environmental topics (Aulia et al., 2024; Ballantyne et al., 1998).

CONCLUSION

Based on the stages of activities carried out, the preparation and implementation of PLH textbooks in local content subjects were well received by schools. The statistical analysis results showed a significant difference in the use of textbooks from year to year, with the most prominent increase occurring between 2022 and 2024. This strengthened the existence of local content subjects in schools.

Recommendations to strengthen the existence of school content subjects in Timpah include training teachers and students to utilize PLH books, providing more evenly distributed and quality PLH books, and receiving policy support from the Kapuas Regency Education Office, Central Kalimantan.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTION STATEMENT

The authors' contributions to the research article were conceptualization, data analysis, and original draft preparation: RJ, HL, and LYU. JR, HK, and MK designed the methodology. W and RMS collected data in the field. W and RMS reviewed and edited the draft.

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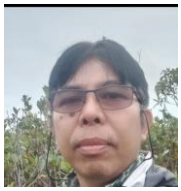

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