

Integration of Local Wisdom of West Kalimantan in the Teaching Materials of My Region of Pride for Elementary School Students

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ABSTRACT

The availability of teaching materials that contain the richness of local wisdom in West Kalimantan is still limited, while students need teaching materials that are more interesting and in accordance with their learning experience. This research aims to analyze the needs of teachers and students, develop teaching materials on the materials of My Pride Region, and determine the validity of the product. The research uses the Research and Development (R&D) method with a 4D model which includes define, design, development, and disseminate. Data was collected through interviews, observations, needs questionnaires, and expert validation, then analyzed descriptively. The results of the study show that there is a need for teaching materials that contain the local wisdom of West Kalimantan and have an interesting and easy-to-understand presentation. Two-stage validation showed an increase in scores on the design aspect from 3.41 to 4.33, language from 4.00 to 4.71, and learning from 3.84 to 4.40. All three aspects reached the very valid category in the second stage. The teaching materials were then disseminated on a limited basis to several elementary schools in Pontianak City. The products produced are an alternative teaching material to the Daerahku Kebanggaanku material which raises the richness of local wisdom in West Kalimantan.

Keywords: Teaching Materials, Local Wisdom, West Kalimantan, Elementary School

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INTRODUCTION

Elementary school learning needs to provide space for learners to recognise the social and cultural environment that is close to their lives. New knowledge is easier to understand when students can relate it to experiences they already have, including experiences that come from the environment in which they live. Silseth & Erstad (2022) show that cultural experiences close to students' lives can serve as a starting point for connecting learning material with daily life, while Ernstsens et al. (2025) report that students construct meaning more readily when personal experience is deliberately brought together with the theoretical knowledge presented at school. Niman (2025) emphasises that recognising students' cultural backgrounds gives their identities a place within the learning process, and Ratri et al. (2025) show that retaining local culture in the curriculum helps young learners maintain their identity while acquiring academic content. Taken together, these findings suggest that it is not enough for local culture to be mentioned as the content of a lesson; it needs to be presented through learning experiences that allow students to connect school knowledge with their lives.

Teaching materials are one of the important means of realising this relationship,



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because the material, examples, pictures, and activities presented determine how cultural experience is translated into concrete learning experience. [Adler & Karam \(2024\)](#) demonstrate that using familiar cultural practices as the entry point of a science lesson makes the material more relevant to students, and [Novak & Treagust \(2022\)](#) show that the way material is presented shapes how students build their understanding. [Wang & Hemchua \(2022\)](#) and [Aprico Siregar et al. \(2024\)](#) show that the cultural knowledge and values carried by the texts and images in teaching materials shape the cultural understanding that students acquire. At the classroom level, [Mao & Qi \(2026\)](#) find that teachers actively adapt curriculum materials to the context in which they teach, [Armas-Quintá et al. \(2022\)](#) argue that primary curricula need to be reviewed so that the local landscape becomes part of citizenship learning, and [Uslu Kocabaş & Cirik \(2026\)](#) show that the environment around the school can function as a learning resource when it is planned as part of the learning design.

This condition has not been fully reflected in the teaching materials used in elementary schools. The results of the preliminary study show that Grade V learning still relies heavily on teaching materials provided by the government, and the material does not adequately describe the regional and cultural characteristics that are close to the students. The findings indicate a gap between the available teaching materials and the learning needs of students who live within a rich regional culture. This problem is not only related to the limited amount of cultural information, but also to the lack of optimal use of culture as part of learning material with a clear function. [Aji & Pujiastuti \(2022\)](#) show that local wisdom can be processed into structured teaching materials when cultural elements are combined with learning objectives and material, so that culture does not stop at being additional information.

This need is becoming stronger because the Independent Curriculum provides wider opportunities for teachers to adapt learning to the characteristics of students and the school environment. [Rahmah et al. \(2024\)](#) show that the shift to the Independent Curriculum changed the way teachers organise learning and gave them a larger space for adjustment, while [Samsudi et al. \(2024\)](#) explain that this space is realised through differentiated instruction that takes account of student characteristics. [Rohmah et al. \(2024\)](#) note, however, that teachers still need support in using this flexibility, so that the availability of concrete teaching materials becomes important. [Suryanti et al. \(2020\)](#) show that regional wealth can be used to connect learning material with student experience, because local wisdom-based teaching materials were able to support the scientific literacy of primary school students. These studies indicate that local culture can be incorporated through material, illustrations, and activities so that students not only recognise a culture but also learn through it. Cultural integration therefore needs to be designed from the moment teaching materials are prepared, because the presence of local elements is not enough if they are only added as pictures, traditional names, or complementary information.

A number of studies show that this approach has been applied to various subjects and learning objectives. [Aji & Pujiastuti \(2022\)](#) developed a science supplement book based on local wisdom and showed that cultural elements can be combined with academic material systematically. [Oktavia & Hadi \(2024\)](#) and [Martadi & Sampurno \(2025\)](#) developed local culture-based learning materials that connect regional culture with character formation, so that culture functions as a source of learning experience as well as a source of values. [Hadianto et al. \(2022\)](#) and [Tetteh et al. \(2025\)](#) show that literacy teaching materials built from local

discourse and indigenous stories can also support academic skills such as reading and thematic understanding, and not only introduce cultural identity, while [Leton et al. \(2025\)](#) and [Miravalles \(2025\)](#) report a similar pattern in mathematics and language learning. This pattern indicates that the main value of local wisdom-based teaching materials lies in the relationship between cultural elements, learning objectives, and student experience.

This need has a particular meaning for West Kalimantan because the region has very diverse cultural riches, such as traditional houses, traditional clothing, languages, dance, musical instruments, traditional ceremonies, regional songs, and various community traditions. [Panggarra et al. \(2025\)](#) show that community traditions in West Kalimantan carry values that can be used for educational purposes. This wealth has the potential to become a learning resource that is close to students' experience, but its use needs to be adjusted to the material and to the level of student development. [Barella \(2020\)](#) developed teaching material content based on West Kalimantan local wisdom and showed that the cultural richness of the region can be processed into teaching materials. That study provides the basis for stating that West Kalimantan culture has strong educational potential; however, its research focus, subject, and grade level differ from those of the present study.

The material of Daerahku Kebanggaanku (My Pride Region) is a strategic part of the curriculum because it is closely related to the introduction of the region, the environment, diversity, and community identity. The preliminary study reinforces this need. Three Grade V teachers stated that teaching materials are an important part of learning, and all of them considered the development of specific teaching materials for instilling the values of local wisdom to be necessary. Students also showed a clear need for more engaging teaching materials: 83.3% considered teaching materials to be very important, 85.9% preferred an illustrated and colourful cover, and 52.9% considered the values of local wisdom to be very important to raise during learning. These findings provide an empirical basis showing that the development of teaching materials does not depart from the developer's assumptions, but follows the needs of the users who will use them.

The novelty of this research is not based on the claim that teaching materials grounded in West Kalimantan local wisdom have never been developed. [Barella \(2020\)](#) has already shown the potential of West Kalimantan culture as a source of teaching materials, and [Kusuma et al. \(2024\)](#) on ethnomathematics, [Syarif et al. \(2024\)](#) on multiculturalism in schools, [Wahyuddin et al. \(2025\)](#) on cultural awareness in language learning, and [Panggarra et al. \(2025\)](#) on local ecological traditions confirm that local culture is an established source of learning content in Indonesia. The novelty of this research lies in the way the needs of teachers and students are used as the basis for selecting and arranging the elements of local wisdom, after which the quality of the product is examined through three aspects, namely design, language, and learning. This approach allows the research not only to produce a product, but also to explain the reasons for material selection, the design characteristics, and the basis for the feasibility of the product.

This study aims to analyze the needs of teachers and students for teaching materials based on local wisdom, design teaching materials that integrate the richness of local wisdom of West Kalimantan in the materials of Daerahku Kebanggaanku grade V elementary school, and determine the validity of products based on aspects of design, language, and learning. The goal is directed to explain the relationship between user needs, the selection of cultural

elements, the preparation of teaching materials, and the quality of the products produced.

METHODS OF RESEARCH

This research uses the Research and Development (R&D) approach to produce teaching materials containing local wisdom of West Kalimantan in the material of Daerahku Kebanggaanku grade V elementary school with the 4D Thiagarajan model consisting of define, design, development, and disseminate. The 4D model was chosen because this research departs from the real needs of teachers and students, so product development needs to begin with the identification of needs, followed by designing based on these findings, then going through a validation and revision process before the product is used more widely. The 4D structure provides a development sequence that is directly in accordance with the character of this research because the define stage functions to determine the needs and characteristics of the product, the design stage prepares a design based on the needs that have been found, the development stage allows the product to be tested and refined through expert validation in stages, while the disseminate stage places the final product at the dissemination stage after the quality is checked.

The define stage is used to obtain an overview of the teaching material needs before the product is designed. The preliminary study was carried out through interviews with grade V teachers, teacher needs questionnaires, student needs questionnaires, and learning outcome analysis. Interviews are used to obtain information about the teaching materials that have been used and the obstacles felt by teachers, while questionnaires are used to obtain an overview of the needs of teachers and students. The results of this stage are the basis for determining the content and characteristics of the teaching materials to be developed.

The design stage is carried out by compiling a design of teaching materials based on the results of a needs analysis. The product is designed to complement the material that has been available with local wisdom materials from West Kalimantan, while paying attention to the appearance of teaching materials so that they are attractive to students. The design includes the structure of the material, presentation of information, the use of images, the selection of letters, and the preparation of materials that allow students to obtain information about the richness of the region through the teaching materials developed.

The development stage is carried out through product development, expert validation, and revision. The products that have been designed were assessed by three validators, namely a design expert, a language expert, and a learning expert. The three validators were selected purposively on the basis of an academic qualification and a field of expertise corresponding to the aspect assessed, together with long experience of teaching and of supervising the development of elementary school learning materials. The design expert is Drs. Hery Kresnadi, M.Pd., a lecturer in the Elementary School Teacher Education (PGSD) Study Programme, Faculty of Teacher Training and Education, Tanjungpura University, who has served at the faculty since 1987, a period of about thirty-eight years, and whose work concerns learning and learning media in elementary schools. The language expert is Dr. Sesilia Seli, M.Pd., a lecturer in the Indonesian Language and Literature Education Study Programme of the same faculty, who has served since 1990, a period of about thirty-five years, and whose field of expertise covers regional and local literature and the teaching of literature, so that she is familiar with

the presentation of local cultural material in texts intended for school readers. The learning expert is Prof. Dr. Hairida, M.Pd., a professor in the Elementary School Teacher Education Study Programme of the same faculty, who has served since 1991, a period of about thirty-four years, with a field of expertise in learning and educational evaluation and a research focus on literacy and numeracy-based learning in elementary schools. Each validator conducted the assessment in two stages, so that the results of the first stage could be used as a basis for improvement before the next assessment. The validation by the design expert was carried out on 23 June and 4 August 2025, by the language expert on 23 June and 7 August 2025, and by the learning expert on 23 June and 12 August 2025. Revisions were made on the basis of the validators' notes and assessments before the product was reassessed.

The disseminate stage is the stage of dissemination of the product that has gone through the development and validation process. The product was distributed on a limited basis to several elementary schools in Pontianak City. This stage is used to expand the utilisation of the product after the results of the expert assessment have been obtained.

The research data were obtained from teachers and students at the needs analysis stage and from three experts at the product validation stage. The needs analysis involved three Grade V teachers. Student questionnaires were used to obtain an overview of their perceptions of and needs for the teaching materials used and the teaching materials they expected. Product validation involved a design expert, a language expert, and a learning expert. Data collection was conducted using observations, interview guidelines, and questionnaires. Interview guidelines were used to obtain information about the use of teaching materials and teacher needs, while questionnaires were used to obtain data on teacher and student needs as well as validator assessments of the product. The instruments were used to produce data that were then analysed qualitatively and quantitatively.

This research was carried out with attention to research ethics. The study was conducted as an institutional research activity of the Faculty of Teacher Training and Education, Tanjungpura University, approved by the university's Institute for Research and Community Service (LPPM) and funded by the faculty's non-tax state revenue (PNBP) budget for the 2025 fiscal year, with a research period of eight months. Access to the field was obtained through the school. The researchers first contacted the school and the Grade V class teacher and explained the purpose of the research, the procedures to be followed, and the type of data to be collected; the interview and the distribution of the needs questionnaires to teachers and students were carried out only after the school had given its agreement, and the questionnaires were administered during scheduled lesson time with the knowledge of the class teacher responsible for the students. Participation was voluntary, and teachers or students who did not wish to respond were not required to do so. The responses are reported without identifying individual respondents: teachers appear only as Teacher 1, Teacher 2, and Teacher 3, and student responses are reported as aggregate percentages. The interview records and completed questionnaires are held by the research team and are used only for the purposes of this study. The same procedure of prior explanation and school agreement was followed at the limited dissemination stage.

The product validation instrument covers three main aspects. The design expert's instrument assesses the elements of display and visual presentation, such as the suitability of the cover, layout, image, typeface and size, use of color, and the clarity of the table of contents.

The language expert's instrument assessed vocabulary, sentence clarity, text structure, Indonesian language rules, language suitability with student development, language consistency, and language difficulty. The learning expert instrument assesses the suitability of indicators, objectives and materials, exercises, instructions, completeness, clarity, depth, the logical sequence of the material, ease of understanding, material coverage, brief information, and summary (Li et al., 2023).

The data was analyzed qualitatively and quantitatively. Interview data and observation results were used to identify needs and problems that were the basis for product development, while questionnaire data was analyzed descriptively. Expert validation data was analyzed using an average score on each aspect of the assessment and then interpreted based on the validity category used in the study. The assessment is carried out in two stages so that the development of product quality can be seen through a comparison of validation results before and after revision.

The series of analyses allows the research to connect three main sources of information, namely user needs, product characteristics, and expert assessment. The results of the needs analysis are used as the basis for design, the validation results are used as the basis for revision, while the results of the final assessment are used to determine the validity of the teaching materials before the product is disseminated.

RESULTS AND DISCUSSION

The define stage produces findings regarding the condition of the teaching materials used by teachers and the needs of students. The interview showed that class V learning still uses Teacher's Books, Student Books, and resources from the internet. The teacher said that the available teaching materials are still general and do not contain material that describes regional peculiarities and local culture that is close to the lives of students.

The results of the questionnaire to three teachers of grade V showed that all teachers stated that teaching materials were very important and all stated that special teaching materials to instill local wisdom values in students needed or needed to be developed. Teachers' assessments of the ability of the available teaching materials to instill local wisdom values also show that their availability is not fully adequate.

Table 1 Data from the Questionnaire Results of the Questionnaire on the Need for Teaching Materials of the Wealth of Local Wisdom in West Kalimantan for Teachers

Aspects	Teacher 1	Teacher 2	Teacher 3
Knowing what teaching materials are	Yes	Yes	Yes
Commonly used teaching materials	Teacher's Books, Student Books, Internet	Teacher's Books, Student Books, Internet	Teacher's Books, Student Books, Internet
The importance of teaching materials	Very important	Very important	Very important
Sufficiency of teaching materials for the cultivation of local wisdom values	Enough	Less	Less
Have you ever heard of the term teaching material	Yes	No	Yes
Teaching materials as learning support	Strongly agree	Agree	Agree
The Need for Local Teaching Materials	Necessary	Indispensable	Necessary

The student questionnaire shows that the teaching material is considered important and students have certain choices regarding the form of presentation. The internet is the most widely used learning resource, while students also provide an assessment of the attractiveness of teaching materials, the shape of the cover, the use of images and colors, and the clarity of material explanations.

Table 2 Data from the Questionnaire Results of the Need for Teaching Materials for Students

No.	Aspects in question	Response	Percentage (%)
1	Opinions about the teaching materials that teachers use when teaching	Very important	83.3
		Important	10.5
		Quite important	6.2
		Not important	0
		Very insignificant	0
2	Teaching materials commonly used when studying	Internet	88.5
		Books	5.8
		Polio paper	2.2
		Other sources	3.5
3	Opinions related to the teaching materials used by teachers when providing materials	Very interesting	30.3
		Interesting	38.9
		Quite interesting	30.8
		Unattractive	0
		Very unattractive	0
4	Whether students had heard the term teaching material	Yes	86.0
		No	14.0
5	Agreement with the use of teaching materials in learning	Strongly agree	28.8
		Agree	53.8
		Somewhat agree	10.5
		Disagree	6.9
		Strongly disagree	0
6	Type of book cover considered attractive	Illustrated and colourful	85.9
		Illustrated and black and white	3.2
		Illustrated in a single colour	2.2
		Not illustrated but with colourful text	3.2
		Not illustrated and black and white	2.2
		Motivational words	3.2
7	Whether students had heard the term local wisdom	Yes	87.7
		No	12.3
8	Importance of raising the values of local wisdom during learning	Very important	52.9
		Important	37.7
		Quite important	9.4
		Not important	0
		Very unimportant	0

These findings are the basis for determining the content and presentation of teaching materials. The product is directed to contain the richness of local wisdom of West Kalimantan while complementing the material that is already available in the Daerahku Kebanggaanku material.

A Collection of Local Wisdom Materials in West Kalimantan

The design stage produces a design of teaching materials that complements the available materials and is arranged with an attractive appearance for students. The design includes the cover design and the initial design of the learning material, as shown in Figure 1.



Gambar 3: Ritual Adat Ngampar Bide Buka Gawai Dayak ke 36 Kalbar
 Sumber: pontianak.tribunnews.com



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2. Hubungan dengan Alam dan Lingkungan

Suku Dayak memiliki keterikatan erat dengan alam, menganggap hutan sebagai bagian tak terpisahkan dari kehidupan spiritual dan ekonomi mereka. Banyak individu Dayak yang berperan dalam pelestarian hutan dan lingkungan melalui praktik-praktik tradisional, seperti sistem perladangan yang berkelanjutan. Seiring dengan eksploitasi sumber daya alam di Kalimantan, banyak individu Dayak terlibat dalam upaya perlindungan lingkungan, baik melalui gerakan masyarakat adat maupun keterlibatan dalam organisasi non-pemerintah (LSM) yang berfokus pada konservasi dan hak-hak tanah. Seperti contoh pada hutan adat di Riam Batu, Kecamatan Tempunak, Kabupaten Sintang, Provinsi Kalimantan Barat yang Dimana hutan ini dikelola dengan kearifan lokal dari Masyarakat setempat dengan mengelola hutan adat tersebut



Gambar 4: Peta batas hutan adat Suku Dayak seberuang Riam Batu
 Sumber: Relungindonesia.org

keadilan, pengelolaan lahan, hingga ritual keagamaan. Hukum adat adalah keseluruhan kaidah-kaidah atau norma baik tertulis maupun tidak tertulis yang berasal dari adat istiadat atau kebiasaan Masyarakat. (Rachmat, 2023). Dalam kebiasaan suku dayak hukum adat sangat dijunjung tinggi karena menjadi sebuah aturan yang akan mengikat setiap individu yang termasuk ke dalam suku tersebut.

B. Hubungan dan Peran Individu Suku Melayu Kalimantan Barat dengan Masyarakat

Suku Melayu di Kalimantan Barat merupakan salah satu kelompok etnis dominan yang memiliki sejarah panjang dan peran penting dalam berbagai aspek kehidupan sosial, ekonomi, dan politik di wilayah tersebut. Hubungan dan peran individu suku Melayu dengan masyarakat lainnya mencerminkan kekayaan sejarah, budaya, serta dinamika modern di tengah perubahan zaman. Berikut adalah beberapa aspek penting terkait hubungan dan peran individu suku Melayu Kalimantan Barat dengan masyarakat:

1. Peran dalam Masyarakat Tradisional

Suku Melayu di Kalimantan Barat dikenal sebagai pewaris dan penjaga budaya Melayu yang kaya, terutama dalam hal sastra, seni, dan adat istiadat. Individu Melayu, terutama para tetua adat, memainkan peran kunci dalam melestarikan dan menyebarkan nilai-nilai budaya dan tradisi Melayu kepada generasi muda dan masyarakat lainnya. Pada masa lalu, Kesultanan Melayu di Kalimantan Barat memainkan peran besar dalam sistem pemerintahan tradisional. Meski sistem kesultanan tidak lagi menjadi sistem pemerintahan resmi, pengaruhnya masih terasa melalui struktur sosial, adat, dan tradisi



Gambar 5: Masjid Agung Kesultanan Sambas
 Sumber: Wikipedia Commons

Untuk mengenal lebih dalam seputar Gawai Dayak, yuk scan dan simak video yang ada di bawah ini.

"Pembukaan Festival Budaya Dayak ke 1 Kalimantan Barat di Bengkayang".



Pranata Sosial dan Proses Sosial Budaya

Jika dilihat dari situs dps.sepriprov.go.id, Pranata sosial merupakan salah satu sistem norma yang berfungsi dalam mengatur tindakan maupun kegiatan anggota masyarakat dalam rangka memenuhi kebutuhan pokoknya atau dalam rangka manusia bermasyarakat. Sedangkan jika dilansir dari situs massofa.wordpress.com, interaksi sosial atau proses sosial budaya merupakan hubungan antarindividu yang saling mempengaruhi dalam hal pengetahuan, sikap, dan perilaku.

A. Pranata Sosial Suku Dayak di Kalimantan Barat

Pranata sosial suku Dayak di Kalimantan Barat merujuk pada sistem aturan, norma, dan struktur yang mengatur kehidupan masyarakat Dayak, baik dalam aspek sosial, politik, ekonomi, maupun budaya. Pranata sosial ini berfungsi untuk menjaga keteraturan dan harmonisasi kehidupan masyarakat serta memelihara warisan adat istiadat yang diwariskan oleh leluhur. Sistem sosial suku Dayak sangat erat kaitannya dengan nilai-nilai adat, agama tradisional, dan hubungan dengan alam. Berikut adalah beberapa aspek utama pranata sosial suku Dayak di Kalimantan Barat:

1. Sistem Kekerabatan

Struktur kekerabatan Dayak cenderung bersifat patrilineal, di mana garis keturunan dan hak warisan mengikuti garis laki-laki. Namun, ada juga beberapa sub-suku Dayak yang menganut sistem matrilineal. Keluarga besar (extended family) memiliki peran penting dalam kehidupan sosial,



Gambar 10: Suku Dayak di Kalimantan
 Sumber: unair.ac.id



Gambar 11: Gawai Dayak Kalimantan Barat
 Sumber: goodnewsfromindonesia.id

B. Pranata Sosial Suku Melayu di Kalimantan Barat

Pranata sosial suku Melayu di Kalimantan Barat merupakan sistem nilai, norma, dan aturan yang mengatur hubungan sosial dan perilaku masyarakatnya. Pranata ini mengacu pada adat istiadat, agama, sistem kekerabatan, serta hubungan sosial ekonomi yang ada dalam komunitas Melayu. Pranata sosial Melayu di Kalimantan Barat sangat dipengaruhi oleh agama Islam, yang telah menjadi bagian integral dari identitas dan kehidupan sosial masyarakat Melayu di wilayah ini. Berikut adalah aspek-aspek penting dari pranata sosial suku Melayu di Kalimantan Barat:

1. Sistem Kekerabatan (Kinship)

Masyarakat Melayu di Kalimantan Barat menganut sistem kekerabatan patrilineal, di mana garis keturunan dan hak warisan mengikuti garis laki-laki. Dalam keluarga, suami adalah kepala keluarga, sedangkan istri dan anak-anak memiliki peran yang diatur berdasarkan norma adat dan agama. Struktur keluarga inti (ayah, ibu, dan anak-anak) adalah unit dasar masyarakat, tetapi hubungan dengan keluarga besar juga sangat penting. Dalam pranata sosial Melayu, hubungan kekerabatan tidak hanya mencakup keluarga inti, tetapi juga saudara-saudara lain, termasuk

c. Upacara Adat: Ritual adat adalah bagian penting dari pranata sosial Dayak. Upacara seperti Gawai Dayak (perayaan panen), Ngayau (tradisi lama berburu kepala yang kini sudah tidak dilakukan), dan upacara adat lainnya memiliki peran untuk menjaga keteraturan sosial dan spiritual masyarakat. Setiap upacara adat dipimpin oleh pemimpin adat atau balian.

dihuni keluarga yang tersedia di dalamnya. Untuk masuk ke dalam rumah, keluarga menggunakan tangga (anak tangga). Selain itu, rumah Panjang dibagi menjadi beberapa bagian yaitu teras atau yang disebut pante, ruang tamu atau samik, dan ruang keluarga.



Gambar 17: Rumah Panjang
 Sumber: akurat.co

b. Rumah Adat Betang Radakng

Rumah Betang Radakng merupakan rumah adat Suku Dayak dengan bentuk yang memanjang hingga 150 meter dengan lebar mencapai 30 meter. Karena ukuran inilah Rumah Radakng biasanya dihuni minimal 100 orang di dalamnya. Dalam rumah Betang Radakng, terdapat tiga aspek utama yaitu aspek penghuni (memiliki struktur multi keluarga), aspek hukum (rumah memiliki kepemilikan hukum yang jelas), dan aspek ekonomi (rumah ini menjadi peran penting dalam pendistribusian hasil alam kepada setiap keluarga yang ada di dalamnya).

c. Rumah Adat Baluk



Gambar 18: Rumah Radakng
 Sumber: goodnewsfromindonesia.id

2. Mata Pencarian

Pada masa dulu, sistem pemerintahan Masyarakat Suku Melayu terutama di Kalimantan Barat masih berupa kerajaan. Masyarakat Suku Melayu terutama yang tinggal di daerah Sintang memiliki mata pencarian berupa kegiatan perdagangan, tukang, hingga berladang untuk menunjang kebutuhan hidup. Kegiatan jual beli atau berdagang ini tentunya telah didukung oleh pihak Kerajaan karena selain membantu perekonomian daerah juga dapat menyejahterakan masyarakat (Heru Susanto, 2021).

C. Hubungan Manusia dan Lingkungan Suku Tionghoa

1. Bentuk Rumah Adat



Gambar 22: Rumah Panggung Cina di 10 Ulu
 Sumber: Mustika, 2014

Jika dilihat dari daerah lain, dilansir dari (Mustika, 2017), salah satu rumah tradisional Cina adalah Rumah Panggung tepatnya di 10 Ulu, Palembang. Rumah

Informasi terkait rumah adat Suku Tionghoa di Kalimantan Barat yang kami dapat sebenarnya sangat sedikit namun bentuk umum rumah yang dihuni Suku Tionghoa adalah rumah panggung.



Gambar 23: Rumah Marga Tjhia
 Sumber: cnnindonesia.com

yang menjadi pembeda antara manusia dengan makhluk lainnya. (Melia & Hartati, 2022).

Tabel 1: Peralatan Hidup yang digunakan Suku Dayak Iban
 Sumber: kalimantanreview.com

Nama	Pemanfaatan
Tanggui 	Topi yang pada umumnya digunakan oleh perempuan Iban saat pergi keluar rumah. Terbuat dari terapas, perupuk, tanduh, senggang, resam, dan uwi (rotan) labu. Tanggui ini dibuat oleh kaum perempuan.
Capan 	Capan merupakan alat penampi beras atau padi dan juga digunakan untuk menjemur makanan. Capan ini terbuat dari senggang dan uwi labu. "Tulang" yang berada di tepi capan disebut bengkong.
Taki Senangkin 	Taki Senangkin adalah wadah yang digunakan untuk membawa padi hasil panen, buah asam yang dipetik atau dipungut masak di hutan, ataupun sahag yang merupakan hasil panen komoditi andalan masyarakat perbatasan pada umumnya. Terbuat dibuat oleh kaum perempuan menggunakan tumbuhan hutan sekitar yang disebut gerenieh dan senggang.

Kelapai 	Kelapai yaitu sejenis tas cangklong dengan bentuk yang kecil. Pada zaman dahulu digunakan kaum laki-laki untuk membawa peluru senapan saat berburu. Saat ini, digunakan sebagai tempat menyimpan rokok serta peralatan pribadi oleh kaum pria. Terbuat dari kayu melebu' atau kayu pelai' serta dibuat oleh kaum pria.
Jangkuk 	Jangkuk adalah wadah untuk membawa padi, kayu bakar, buah-buahan (rambutan, durian dan lain-lain) hasil hutan. Jangkuk terbuat dari uwi seru' dan uwi labu. Jangkuk bisa dibuat oleh kaum perempuan maupun laki-laki. Umumnya, Jangkuk dibuat oleh perempuan.
Pengayak 	Pengayak merupakan alat untuk membersihkan padi atau beras dari ampa' (ampas) padi. Terbuat dari gerenieh, sebuah pengayak dibuat dan digunakan oleh kaum perempuan.
Lanyik 	Lanyik digunakan untuk membawa padi dari uma (ladang) menuju pondok ladang (langkau uma) atau ketika ke rumah. Sebuah Lanyik terbuat dari gerenieh, dan tulangnya terbuat dari kayu kecil (laras), bengkong

Figure 1 A Collection of Local Knowledge Materials in West Kalimantan

The teaching materials developed contain the richness of local wisdom of West Kalimantan and are arranged as interactive materials to help students obtain more in-depth information about the material studied. The designed product then entered the validation stage carried out by the design expert, the language expert, and the learning expert.

Product Validation and Revision Results

Validation was carried out in two stages by three validators, namely the design expert, the language expert, and the learning expert. The design expert conducted the validation on 23 June and 4 August 2025, the language expert on 23 June and 7 August 2025, and the learning expert on 23 June and 12 August 2025.

Table 3 Results of Validation of Teaching Materials in the First and Second Stages

Validation Aspects	Stage 1	Stage 2	Category (Stage 2)
Design expert	3,41	4,33	Very valid
Language expert	4,00	4,71	Very valid
Learning experts	3,84	4,40	Very valid

All three aspects of the assessment show an improvement in the second stage after the product is repaired. Product improvements are carried out based on validator input in the first stage, so that the second stage of assessment shows the condition of the product after undergoing improvement.

The design expert's input mainly concerned the layout and the use of visual elements in the teaching materials. The language expert provided input related to the use of language appropriate to the characteristics of the students. The learning expert provided input related to the presentation of materials, exercises, instructions, and completeness of learning components. The record is used as the basis for revision before the product is reassessed in the second stage.

The results of the second stage of validation show that the product is in the category of being very valid in terms of design, language, and learning. The repaired products are then designated as the final product and disseminated on a limited basis to several elementary schools in Pontianak City. The final product is a teaching material of the richness of local wisdom of West Kalimantan in the material of Daerahku Kebanggaanku for grade V elementary school students. The product is prepared based on the results of the analysis of the needs of teachers and students, then improved through a two-stage validation process before being disseminated.

Discussions

The Need for Teaching Materials Shows That There Are Problems with the Learning Resources Used

The results of the study show that the need for teaching materials is not only related to the desire to obtain additional material, but also indicates that the available teaching materials have not fully helped students recognise the richness of the region close to their lives. This finding is important because the need arises simultaneously from teachers and students, so that product development does not depart only from the researcher's decision, but from the conditions of use of teaching materials found during the preliminary study. [Manik & Suartama](#)

(2022) found a similar problem in their study of Balinese local wisdom-based literacy teaching materials, namely that teachers had not developed teaching materials combining the values of local wisdom with learning activities, so that the need for new teaching materials arose together with the need to improve the learning process.

The findings of this study also show that students want a more attractive presentation, especially through pictures, colours, and short, clear explanations. This need is important because the form of presentation determines whether the cultural material that has been chosen can be received by students as interesting learning material or becomes additional information that is difficult to understand. Widiyanti (2022) shows that reading literacy teaching materials based on local wisdom can be developed by combining local values with higher-order thinking objectives, so that cultural elements do not stand alone as reading content but help form a learning experience directed at particular abilities. Studies of instructional clarity support this interpretation: Serki & Bolkan (2024) and Bolkan & Goodboy (2024) show that clarity of presentation reduces cognitive load and affects student motivation, while Derakhshan et al. (2023) and Kelly et al. (2024) report that clarity and the way material is communicated influence how students value and respond to learning. Regarding the form of presentation, Shatri & Shala (2022), Tani et al. (2022), and Manly (2024) show that interactive presentations, video, and the use of several content modalities affect learning outcomes, and Máñez et al. (2024) and Sayed et al. (2023) show that the way information is delivered and adapted influences the way students process it. Batova (2026) and Taqdir (2025) further note that visual choices carry cultural meaning, so that the images used in culture-based teaching materials need to be selected carefully, while Orphanidou et al. (2024) show that cultural heritage content requires appropriate presentation in order to function educationally. These studies help explain the results of the present research: the need for an attractive appearance and for clarity of material is not merely an aesthetic issue, but is related to the way students receive and use teaching materials that contain cultural information.

The Integration of Local Wisdom Needs to Be Translated Into the Characteristics of Teaching Materials

The teaching materials produced do not stop at adding information about the culture of West Kalimantan. The development results show that user needs are translated into material that complements the Daerahku Kebanggaanku material through the arrangement of content, images, colours, typography, and a more targeted presentation of the material. This pattern suggests that the integration of local wisdom requires design decisions that connect cultural content with the way students read and learn material. Hasan & Monita (2026) show that the values of local wisdom can be integrated into the operational curriculum of a school through deliberate design rather than through the addition of cultural information, and Nurmaya et al. (2025) describe a similar process in moral and character education. Nursyahidah et al. (2025) demonstrate that cultural context can be built into a learning trajectory in mathematics, while Rahman et al. (2025) and Pardosi et al. (2026) show that the internalisation of local values takes place through structured processes rather than through the presence of cultural symbols alone.

The findings are closely related to the research of Sari et al. (2024), who developed MICADO, a local wisdom-based module for Grade V students. The difference in learning

objectives actually strengthens the results of the present research, because the West Kalimantan teaching materials are also not designed merely to increase cultural information, but to include culture in the Daerahku Kebanggaanku material as part of the student learning experience.

[Suhartiningsih et al. \(2024\)](#) also show that student worksheets based on Bondowoso local wisdom were developed because the available teaching materials did not adequately contain regional culture. Their product was not only judged to be very feasible, but was also tested through student response, practicality, and effectiveness. Their results provide an important comparison for this study. The product developed here has obtained evidence of validity from three aspects, but does not yet have equivalent data on effectiveness or practicality. This difference indicates that the results of this study should be understood as evidence that the product has met the initial quality requirements before entering wider testing of its use.

An Increase in Validation Scores Indicates That Revisions Have a Substantive Function

The increase in the scores given by the design, language, and learning experts after revision shows that the validation process does not serve only to provide valid or invalid labels. The validators' input resulted in observable improvements to the characteristics of the product, after which the product was re-evaluated. This pattern is important because the quality of teaching materials is determined not only by the completeness of the content, but also by readability, visual presentation, and the suitability of the material to the learning needs of students. [Al-Shallakh \(2025\)](#) shows that teaching materials need to be designed on the basis of an analysis of learner needs, while [Anwas et al. \(2022\)](#) show that the quality of textbooks is related to the literacy skills of Indonesian elementary school students. [Désiron et al. \(2025\)](#) and [du Preez & Jacobs \(2026\)](#) show that materials created by teachers need to follow multimedia and visual design principles in order to support learning, and [Hewindati et al. \(2023\)](#) and [Apriliani & Pramuditya \(2025\)](#) show that reviewing and evaluating materials produces concrete improvements to learning products.

[Dewi & Suniasih \(2023\)](#) show that the development of IPAS e-modules based on Balinese local wisdom can use several types of expert assessment, ranging from material experts, instructional design, and media through to student trials. Their results show a high validity value as well as evidence of effectiveness through statistical tests. This evaluation structure shows that one type of assessment is not enough to describe the quality of a learning product. [Schellekens et al. \(2021\)](#) and [Toosi et al. \(2021\)](#) show that the evaluation of learning products can be arranged in stages and can serve different functions, [Shah et al. \(2021\)](#) show the role of evaluation in iterative improvement, while ([Garay Abad & Hattie, 2025](#)), [Singh et al. \(2023\)](#), and [Swinburne Romine et al. \(2025\)](#) show that assessment instruments need to be aligned with the aspects being measured. The findings of this study reinforce that idea through the use of three different validation aspects, although the evidence obtained here is still limited to the validity of the product and does not yet include testing of its effectiveness.

The language aspect also showed the highest improvement in final score after revision compared with the other two aspects. This result shows that the improvement of teaching materials is related not only to the selection of content, but also to the way the material is delivered to students. The finding is relevant to the study of [Sari et al. \(2024\)](#), which places the

quality of teaching materials as an important part of development before modules are used to support students' understanding of concepts. Language that is appropriate to the stage of student development is important because culture-based teaching materials carry terms, names, and information that may not be familiar to some students. [Abdala \(2024\)](#) and [Guerrettaz et al. \(2022\)](#) show that the language of instructional materials and the way those materials are used in the classroom affect student learning, while [Risager \(2023\)](#) and [Li et al. \(2023\)](#) show that language learning materials carry cultural representations that need to be arranged consciously. [Genesee \(2022\)](#) points out that the language background of students needs to be taken into account, [Brummer et al. \(2024\)](#) show that the way information and feedback are delivered affects learning performance, [Garay-Rondero et al. \(2024\)](#) show that teaching materials influence instructional design, and [Enderle et al. \(2022\)](#) show that refining an instructional model also changes the teaching practice that accompanies it.

The Position of the Research Results and Their Implications for the Development of Teaching Materials

The results of this study place the integration of local wisdom as a process that starts from user needs, is translated into product characteristics, and is then examined through expert assessment. This position differs from an approach that places culture only as additional content, because every development decision in this research is related to the needs of teachers, the needs of students, and the demands of the Daerahku Kebanggaanku material. [Manik & Suartama \(2022\)](#) show that teaching materials based on local wisdom can be developed to answer particular learning needs, while [Widiantari \(2022\)](#) shows that local content can be combined with the academic abilities targeted by learning. This research extends both findings through a product that focuses the content of West Kalimantan local wisdom on the Daerahku Kebanggaanku material for Grade V.

The main implication of this research lies in the need for teachers and developers of teaching materials to see regional culture as a source of content as well as a basis for choosing how the material is presented. [Dewi & Suniasih \(2023\)](#) show that teaching materials based on local wisdom can obtain validity, practicality, and effectiveness when their development is continued to the stage of use testing, and [Suhartiningsih et al. \(2024\)](#) show that local teaching materials obtain more complete evidence of quality when validity is followed by tests of use and effectiveness. These findings provide a direction for further development, because the product of this research already has evidence of validity but still needs testing of its practicality and effectiveness in order to establish how the teaching materials are used and the extent to which their use affects student learning outcomes.

This position also clarifies the contribution of this research. The contribution of this research lies in the preparation of teaching materials that raise the richness of local wisdom of West Kalimantan in the material of Daerahku Kebanggaanku based on the needs of teachers and students, then checking the quality of the product through validation of design, language, and learning. These results show that the development of regional-based teaching materials needs to pay attention to three things at the same time, namely user needs, how culture is translated into learning materials, and product quality before being used more widely.

CONCLUSIONS

This research produced teaching materials containing local wisdom of West Kalimantan in the Daerahku Kebanggaanku (My Pride Region) material for grade V elementary school students through a 4D model. The needs analysis shows that there is a need for teaching materials that are more in line with the needs of teachers and students and contain the richness of local wisdom in West Kalimantan. These needs are the basis for product design which is then improved through two stages of validation by a design expert, a language expert, and a learning expert. The validation results showed an increase in assessment in all aspects after the revision until it reached the category of very valid in the second stage, so that the product could be designated as a suitable teaching material for use and subsequently disseminated on a limited basis. The contribution of this research lies in the development of teaching materials that connect the learning needs of Grade V students with the richness of local wisdom of West Kalimantan in the Daerahku Kebanggaanku material. Further research needs to test the practicality and effectiveness of the product through direct use in the learning process.

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