

Development of a Technology-Integrated Outbound Learning Model Based on Local Wisdom to Strengthen Nationalism Among Students at the Indonesia-Malaysia Border

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ABSTRACT

This study aims to develop an outbound learning model based on local wisdom with the integration of information technology to enhance the sense of nationalism among students at the Indonesia-Malaysia border. The method used is Research and Development (R&D) with the 4D model (Define, Design, Develop, and Dissemination). This learning model is designed to create an enjoyable and interactive learning environment through information technology, which allows easy access to various local cultural resources. Information technology is used to document, store, and share information about local culture and facilitate interaction and collaboration among students. By leveraging this technology, students can more easily understand and appreciate local cultural products, enhancing their sense of nationalism. The study results indicate that integrating information technology based on local wisdom in outbound learning can significantly strengthen students' sense of nationalism. This model also provides tools to monitor and evaluate the effectiveness of the learning process, ensuring that the student's learning experiences remain relevant and meaningful in the context of their culture.

Keywords: Nationalism, Outbound Learning, Local Wisdom, Information Technology, Student Engagement, Indonesia-Malaysia Border.

INTRODUCTION

Globalization is a phenomenon in human civilization that continually experiences movement and change in societal life. This change is marked by the presence of information and communication technology, which certainly accelerates the flow of globalization (Jamiah et al., 2019; Nurhasanah et al., 2021). The rapid flow of globalization has resulted in a diminished sense of love and pride for one's own culture, with a preference for foreign cultures, leading to a decreased sense of belonging to one's nation. This results in the fading of nationalism ((Jamiah et al., 2019; Kansil, 2011; Widiyono, 2019).

The erosion of nationalism leads to the deteriorating image of the nation itself or even causes the society's soul to be contaminated by foreign cultures. Therefore, strengthening nationalism within oneself and others becomes crucial, as nationalism is the key to uniting all societal groups. Nationalism is the desire to live together based on a unity of soul, feeling, and will, which undergoes a process of self-awareness as a collective unity (Shoban et al., 2017). Strengthening nationalism towards a collective life is important as it expresses love for one's nation. This impacts the love for the nation and always maintains the country's unity. Providing insights into the existence of Indonesia through personality can foster a sense of nationalism (Rafif & Najicha, 2022).

The spirit of nationalism, especially in border areas, can be reinforced using the diversity of cultural products preserved in those regions. Cultural products that embody noble values must be preserved, as these values originate from ancestral cultures that form local wisdom (Baderiah & Munawir, 2024; Manik et al., 2024). Border communities, especially schoolchildren, act as social agents that preserve local wisdom values and function as social capital to nurture nationalism. Local wisdom values integrated into learning tools effectively foster tolerance, nationalism, peace, and social care (Murti et al., 2020; Onohwakpor, 2023). Learning based on local wisdom is a joyful learning strategy that can stimulate student character (Darmadi, 2018).

Outbound learning is an educational activity designed outside the classroom based on the principle of direct experience, which can be presented in games or simulations that effectively connect physical and mental

intelligence aspects (Fitri, 2016). Outbound learning involves activities designed and conducted in open nature to foster behavior, nurture a sense of togetherness, and foster student empathy. Local wisdom-based learning is highly relevant to be applied (Darmadi, 2018).

The development of information and communication technology (ICT) has brought significant changes in various aspects of life, including education. ICT allows the creation of more interactive and engaging learning methods and enables quick and accurate access to various information. Technology in education is not limited to classroom teaching but can also be applied in outdoor learning activities or outbound learning. Technology can support the documentation and dissemination of information related to local wisdom, making cultural values easily accessible to students (Moore, 2010).

Technology integration in local wisdom-based learning in border areas becomes very relevant, given these regions' limited access to information and educational resources. Technology such as mobile applications, e-learning platforms, and social media can disseminate information about local culture more widely and quickly. This technology also allows the creation of interactive and engaging learning content, such as videos, animations, and simulations, which can increase students' interest and motivation to learn (Higgins et al., 2012; Sachdeva et al., 2024).

Furthermore, technology can build communication and collaboration networks between schools in border areas and other regions, domestically and internationally. Students can share information and experiences through this network and learn about each other's cultures. This enriches students' knowledge and strengthens the sense of unity and pride in their own national culture (Garrison & Kanuka, 2004). Additionally, technology can be used to develop applications that allow students to virtually explore cultural and historical sites in border areas, helping them understand and appreciate their cultural heritage better.

The implementation of technology in education also enables more effective evaluation and monitoring. Through digital platforms, teachers can collect real-time data on students' learning progress and analyze the effectiveness of the teaching methods. This allows teachers to continuously optimize the learning process according to the needs and characteristics of the students (Means et al., 2012). Moreover, technology facilitates the creation of digital archives that store various information and learning materials based on local wisdom, making them accessible at any time and to anyone in need.

Several studies on outbound learning models have shown that this model can improve students' physical fitness levels (Humaedi et al., 2019), increase students' enthusiasm for learning and competitiveness (Artobatama, 2019), and enhance students' self-efficacy (Widarnandana & Simarmata, 2015). Contextual learning can also contribute to capturing local wisdom issues (Darmadi, 2018). Developing learning strategies based on local wisdom can instill the spirit of nationalism (Awang et al., 2021; Rezkya Nugraha & Deta, 2023; Susanti, 2014). However, no research has specifically developed an outbound learning model based on local wisdom with technology integration to strengthen nationalism among junior high school students in border areas. Therefore, this research is necessary.

This study aims to describe the values of local wisdom derived from cultural values and craft products in border areas and develop an outbound learning model integrated with information technology, which can be used to maximally actualize and internalize these local wisdom values according to the students' characteristics.

1 RESEARCH METHOD

This study employs the Research and Development (R&D) method using the 4D model (Define, Design, Develop, and Dissemination) (Thiagarajan et al., 1974). The research spans two years and is conducted at Public Junior High School 1, located in the border area of Jagoi Babang, Bengkayang Regency, West Kalimantan Province (bordering Indonesia-Malaysia).

1.1 Year One: Define, Design, and Develop Phases

1.1.1 Preliminary Studies

Before initiating the 4D stages, preliminary studies are conducted to gather essential data and insights:

- 1) Field Surveys: Collect data on the current curriculum, teaching materials, student character values, and instructional methods used by teachers.
- 2) Literature Review: Conducting theoretical studies, including Cheng's tree theory, to understand the foundational concepts of nationalism and local wisdom (Cheng, 2002).

1.1.1.1 Define Phase

The initial phase involves detailed analysis through observations and interviews. The five activities in this phase are:

- 1) Front-end Analysis: Identifying educational challenges, unexplored local wisdom, and the need for a more effective outbound learning model.
- 2) Learner Analysis: Understanding students' awareness and appreciation of local wisdom and nationalism.
- 3) Concept Analysis: Identifying key concepts related to local wisdom from Dayak Bidayuh cultural products and handicrafts.
- 4) Task Analysis: Determining the specific components of the outbound learning model to be developed.
- 5) Specifying Instructional Objectives: The research objectives include fostering nationalism through a local wisdom-based outbound learning model integrated with technology.

1.1. Design Phase

This phase involves creating the conceptual framework for the learning tools and models and simulating their use on a limited scale. Activities include:

- 1) Constructing Criterion-Referenced Tests: Developing tests to assess students' understanding of local wisdom and nationalism.
- 2) Media Selection: Choosing educational media representing Dayak Bidayuh's cultural values, such as traditional houses, replicas, and cultural artifacts.
- 3) Format Selection: Deciding on the presentation format for the learning model, including observation, discussion, and exploration of local cultural values.
- 4) Initial Design: Conducting limited trials with 20 seventh-grade students to test the initial model.

1.1. Develop Phase

This phase focuses on producing and refining the developed learning model. Activities include:

- 1) Expert Appraisal: Evaluating the model's format, language, illustrations, and content. Feedback from practitioners (teachers and principals) and experts (lecturers) is used for revisions.
- 2) Developmental Testing: Conducting development trials with 32 seventh-grade students from Jagoi Babang Public Junior High School 1 to refine the model.

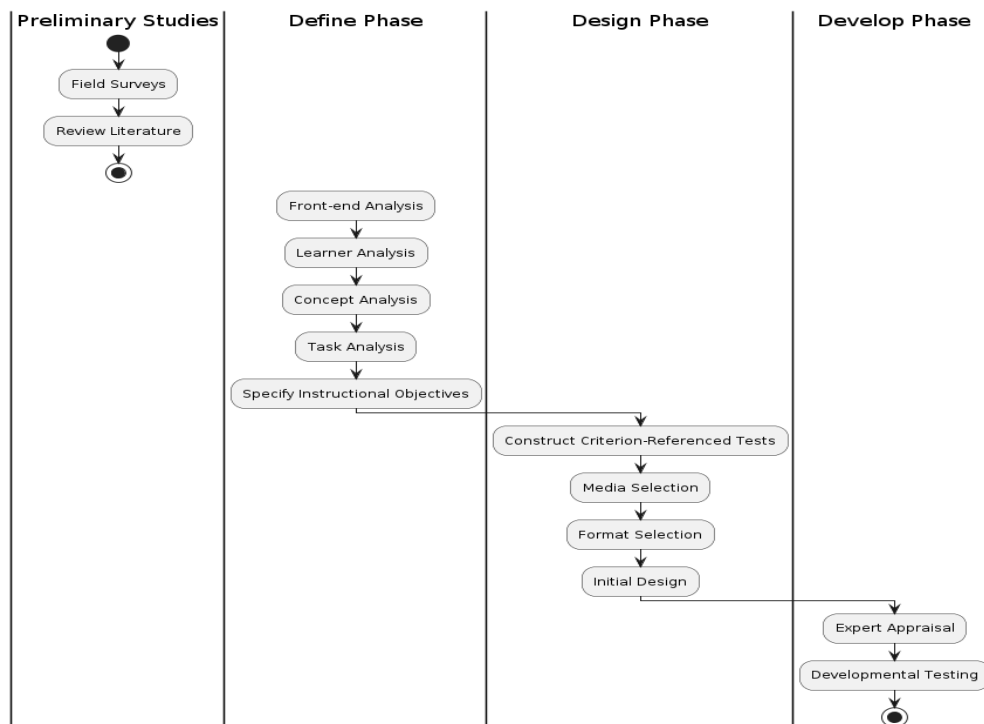


Figure 1. Year One: Define, Design, and Develop Phases

1.2 Year Two: Broad Testing and Dissemination Phase

1.2. Broad Testing

Continuing from the first year's development, this phase involves broader testing of the model, incorporating classroom action research (CAR). Before implementation, teachers receive training on the developed learning module.

1.2. Dissemination Phase

Promoting and disseminating the developed learning model to schools in the Jagoi Babang border area. This phase includes:

- 1) Validation Testing: Measuring the effectiveness of the learning model in achieving its objectives in border schools.
- 2) Packaging: Printing and preparing the local wisdom-based outbound learning model for distribution.
- 3) Diffusion and Adoption: Spreading the printed learning model to ensure target schools understand and adopt it.

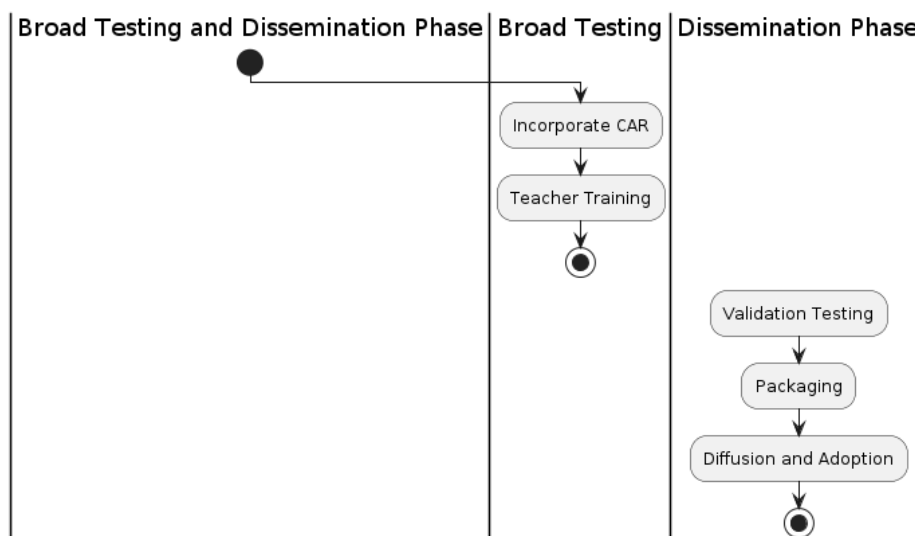


Figure 2. Year Two: Broad Testing and Dissemination Phase

1.3 Integration of Technology

Throughout each phase, the integration of information technology is emphasized. For example, digital content such as interactive modules, videos, and virtual tours of cultural sites are developed during the Design Phase. During the Develop Phase, digital platforms are used for expert reviews and virtual collaboration tools for developmental testing. In the Dissemination Phase, online repositories and platforms are created to share the model and gather feedback digitally.

1.4 Data Analysis Methods

Data collected during various phases, including surveys, observations, and tests, will be analyzed using qualitative and quantitative methods. This ensures a comprehensive understanding of the impact and effectiveness of the developed model.

2 RESULTS AND DISCUSSION

The local wisdom embedded in the cultural productions of the Dayak Bidayuh in the Border Area of Jagoi Babang is a valuable cultural heritage passed down through generations and a crucial guide in community living. These values have the strength to withstand the currents of globalization, as they are acknowledged and highly revered by the local community as a strong foundation for strengthening national identity, especially among the younger generation, such as middle school students in Jagoi Babang. In this context, information technology significantly reinforces nationalism through internalizing and personalizing local wisdom.

Strengthening students’ sense of nationalism can be achieved by applying information technology in the learning process. Steps such as excavating local cultural products in border areas, identifying and analyzing local wisdom values, and expressing the concept of nationalism can be enhanced by integrating information technology. For example, digital media can document and archive local cultural products, software can be used for more efficient data analysis, and online platforms can share and expand understanding of local wisdom values.

Moreover, research findings on nationalism derived from local wisdom values can be presented more effectively through various digital media such as multimedia presentations, animations, or interactive maps. The use of information technology not only enriches students’ learning experiences but allows them to actively engage in the learning process and interact with learning materials more dynamically.

Data from studies on local wisdom values embodied in local cultural products can be presented as more engaging and easily understandable by creating specialized portals or websites that incorporate multimedia elements, data visualization, and interactive narratives. This facilitates the dissemination of information to the wider community and increases awareness of the importance of strengthening nationalism through the appreciation of local wisdom.

Thus, integrating information technology in learning and disseminating information about local wisdom values can be an effective strategy for building awareness and pride in nationalism among students and the general public.

Table 1. Unveiling the Concept of Nationalism in Local Cultural Products

No.	Local Cultural Product	Indigenous Wisdom
1.	Traditional Pangah House	The traditional house has nine pillars: symbolically, the number 9 is the highest number signifying luck, a container that can unite residents in worshipping ancestral spirits, depicting a sacred place where Jubata (God) resides, and symbolizing love and respect for ancestors.
2.	Betang House or Radangk or Boli Omu	The Betang House has 20 to 40 doors, one staircase, and high supporting pillars. The Betang House has tall pillars to avoid attacks from wild animals or enemies. The Betang House serves as a strong symbol of communal life for the Dayak people, expressing legendary aspects of ancestral life and presenting a complete and concrete statement about village governance, social organization, and community systems, serving as the central point of community life. The cultural values resulting from life in the Betang House involve human life: the meaning of work, deeds and actions, perceptions of time, human relationships with the surrounding nature, and relationships with others. The Betang House is their cultural center, as all activities and life processes occur over time. They cherish peace in a harmonious community, thus striving to preserve this Betang House tradition.
3.	Hornbill Bird	Dayak oral tradition says the hornbill bird is considered a sacred warrior. The hornbill symbolizes strength, prowess, authority, grandeur, and glory. The symbolic meaning for the Dayak people is that one is identified with strength and authority. Therefore, in community life, they unite to become strong, love one another, and work together.
4.	Shield or Telawang	The shield serves as a complement to self-defense weapons during the war, as well as a complement to the Mandau (traditional sword) and in dances. Allegedly, its carvings have a magical power that can boost morale and provide strength to the bearer. The shield is a cultural object born from the Dayak people's belief in magical power. The shield has symbolic meaning as a symbol of strength and defense. Additionally, it signifies chivalry and authority, for the shield's owner, combined with the Mandau, indicates bravery and strength.
5.	Mandau or Jepal	The Mandau carries symbolic meanings as a valuable item imbued with sacredness and magical powers. The Mandau's sacredness is obtained through specific rituals during its creation and decapitation (of enemies). The sacred Mandau is an ancient heirloom used for decapitation and is considered a sacred object. It is used in traditional ceremonies and as a tool for treating patients by shamans. The Mandau symbolizes chivalry, guardianship, responsibility, and maturity for its owner. It also symbolizes a sacred object with magical powers, believed to bring blessings or luck to its owner.
6.	Spear	The spear is a traditional weapon of the Dayak people used for warfare (headhunting), self-defense against dangers, hunting

No.	Local Cultural Product	Indigenous Wisdom
		animals in the forest, and fishing. Like the Mandau and shield, the spear is a weapon with magical and sacred powers. Spears are made from the Nibukng tree, known for its magical and sacred properties. To cut or collect this tree, specific ritual ceremonies must be performed beforehand to prevent harm to those involved.
7.	Gong	The Gong holds myths and ethnic Dayak beliefs, where it is believed to have accompanied the descent of humans from the sky and is considered a valuable item with high economic value. Gong serves as a tool for communicating with ancestral spirits. The Dayak people who adhere to the Kaharingan religion (Dayak ancestral religion) consider the Gong sacred. The Gong becomes a dominant musical instrument during ritual ceremonies, accompanying traditional healers or ceremony leaders, dances, and chanting mantras. Additionally, Gong is used to announce events or festivals families or villages hold. During funeral ceremonies, while the deceased’s body is still in the mourning house, it is played to escort the deceased’s soul to the spiritual realm.
8.	Gawai Dayak Ceremony	The Gawai Dayak ceremony is held in the town and at the Radangk House. Dayak Bidayuh offerings are called Boli Omu. The Gawai Dayak ritual begins with dances by youth, the village chief, and elders, carrying offerings to be placed in the ritual hut. The ritual ceremony is used to express gratitude to Jubata (the Creator) for the harvest obtained over the year and to pray for abundant yields in the following year. They also pray for continued health and safety. The village chief read the traditional ceremony procedures, who recites specific mantras for this ceremony and smeared blood from a male chicken on the offering. The requirements for the Gawai ritual are prepared by the community, containing: betel leaf, lime, glutinous rice, a tray, salt, rice, eggs, chicken head, chalk, ase maneh (traditional snack), rice cakes, tobacco leaves, floating cigarette papers, and traditional drinks (tuak). Nyangahathn is the main religious expression of the Dayak people and is a fundamental part of any ceremony, with standard stages, except for materials, the number of sacred spirits, invited jubata, and of course, context-appropriate. The stages of Nyangahathn are divided into (1) matik, (2) ngalantekatn, (3) mibis, and (4) ngadap Buis. Matik aims to inform the ancestors and jubata of the family’s intentions. Ngalantekatn is a request for the safety of all involved family members. Mibis aims to cleanse all impurities from the family and bury them as the sun sets towards the west. Ngadap buis is the stage of receiving offerings by the ancestors and jubata to express gratitude and receive blessings or sanctification (purification) for everything unsatisfactory, including calling all living souls (lost) to be calm and peaceful.

Source: Yulis J., dkk (2019)

The outbound learning model based on local wisdom is one of the models used to strengthen the nationalism of junior high school students in border areas. Border communities, especially junior high school students, serve as social agents, preserving the values of local wisdom, which serves as social capital to foster nationalistic sentiments. The Jagoi Babang border community has the advantage of local wisdom as a highly valuable social capital, stemming from Dayak Bidayuh cultural values and artisanal products. Cultural values include local traditions such as Gawai Dayak, institutional community ties, dances, and songs. In contrast, artisanal products include traditional house structures, frames, shields, handicrafts made from rattan, and Dayak woven fabric. These cultural values are largely consolidated under the Dayak Adad Council. The community continues to preserve these values from generation to generation, as it is a moral responsibility to ensure these traditions are not lost. As

Robert (2013) expressed, noble values must originate from ancestral cultural values, which constitute local wisdom.

Providing outbound learning models based on local wisdom for junior high school students is essential in creating human resources who recognize, understand, and preserve local wisdom values, which are considered a moral responsibility to protect traditions from extinction. Introducing, understanding, and preserving local wisdom values that impact the growth of students' sense of ownership and love for their own culture is useful in bolstering and strengthening students' nationalistic sentiments. The outbound learning model based on local wisdom can also be adopted in other border area schools, as the local wisdom of border communities represents a cultural richness.

The internalization and actualization of local wisdom values to foster students' nationalism result in students developing an affection for local cultural products. Students' affection for local wisdom can manifest social resilience. Social resilience is the ability of a region, demonstrated by its residents' ability to organize themselves according to concepts they believe to be true, with strong spirits and high morale, utilizing nature wisely. Local wisdom values, in the context of students' nationalism, can be used to preserve regional potential by actualizing these values. Understanding local wisdom values is explored from the potential held by the community, such as through cultural and traditional values and the artistic products of their ancestors. Regional potential refers to specific resources owned by a particular region. During the learning process, students interact not as empty vessels but as individuals who bring cultural values from their family and community environments. Wise teachers can actualize their local wisdom values in outbound learning processes.

Outbound learning based on local wisdom encourages students to discover or construct concepts learned through interpretation using observation, discussion, experimentation, or others. The goal of internalizing local wisdom values in outbound learning processes to strengthen nationalism includes: 1) instilling a love for ancestors, as loving ancestors means loving the homeland; 2) fostering a sense of preserving the dignity and honor of ancestors; 3) understanding the meaning of patriotism; 4) behaving to preserve the noble values of ancestors; 5) behaving as a strong and steadfast nation; 6) understanding the meaning of independence; 7) understanding the meaning of respecting others; 8) understanding the meaning of obedience to God; 9) knowing how to reject external threats; 10) understanding the meaning of peace-loving; 11) understanding the meaning of friendship with others or with other nations; 12) behaving to protect and defend the homeland; 13) prioritizing well-being and tranquility, and 14) behaving to preserve the richness of natural resources.

The outbound learning model based on local wisdom is an activity outside the classroom to optimize the potential of students' local wisdom developed through simulations, discussions, and observations of cultural products and artisanal works of the community as learning media. The potential of students' local wisdom has strategic value in maintaining national resilience and strengthening nationalistic sentiments while building national self-confidence. As social agents, students preserve the values of local wisdom and as social capital useful for fostering nationalistic sentiments.

Optimizing the potential of students' local wisdom cannot be separated from the issue of instilling values (value transfer). The local wisdom values instilled and preserved in the presentation of cultural products and community artisanal works as learning media in border communities are a moral responsibility to preserve traditions from extinction, including 1) behaving to preserve the noble values of ancestors; 2) behaving as a strong and steadfast nation; 3) values of independence; 4) respecting others; 5) behaving to protect and defend the homeland; 6) prioritizing well-being and tranquility; 7) behaving to preserve the richness of natural resources; 8) obedience to God; 9) rejecting external threats; 10) love for peace; 11) values of friendship with others or with other nations; 12) affection for ancestors, as loving ancestors means loving the homeland; 13) patriotism; and 14) preserving the dignity and honor of ancestors.

Outbound learning based on local wisdom to strengthen nationalism has several characteristics that differ from conventional approaches. Learning characteristics include a) emphasis on observing presentations of local cultural products, b) students discussing observation results to discover local wisdom values, and c) students finding connections between local wisdom values and the concept of nationalism. Learning takes place outside the school, approximately three kilometers away. The location is specifically in mountainous areas designed by the Dayak Bidayuh Cultural Authority of the Jagoi Babang Border Region in Bengkayang Regency (Indonesia-Malaysia Border).

The effective implementation of the outbound learning model based on local wisdom requires a relevant approach to the issues and objectives developed. A relevant approach to implementing the model, thus achieving effective learning, requires steps: 1) experience (formation of experience); 2) reflect (reflection on experience); 3) form concept (formation of concepts); and 4) test concept (concept testing) (Boyett in Ancok, 2002). The steps for actualizing local wisdom values in outbound learning to strengthen nationalism are: 1) formation of experience (experience), where students observe presentations derived from cultural products and Dayak Bidayuh Adat's

artistic works. Direct experience serves as a means to evoke intellectual, affective, and physical experiences in students; 2) reflection on experience (reflect), where teachers facilitate students to express their experiences based on their observations intellectually and affectively, thus discovering local wisdom values; 3) formation of concepts (form concept), where teachers facilitate students in finding meaning from intellectual and affective experiences so that students can find the connection between local wisdom values and the concept of nationalism; and 4) concept testing (test concept), where teachers and students discuss and accompany it with questions about the relationship between local wisdom values and the concept of nationalism.

The design of the outbound learning model based on local wisdom to strengthen students' nationalism used as validators has validated a highly appropriate guide. The characteristics of the developed learning model consist of six essential components: a) rational and model objectives; b) assumptions of the outbound learning model based on local wisdom; c) conceptualization of outbound learning models; d) approaches to applying learning models; and e) implementation of outbound learning models based on local wisdom. The implementation of learning consists of stages: i) learning planning includes description of teaching materials presentation, goals to be achieved in learning, allocation of learning time, and determination or selection of media/sources/tools & learning materials; ii) learning implementation, which includes: preparation activities, preliminary activities, core activities, and closing activities.

1.5 Design of Local Wisdom-Based Outbound Learning Activities to Strengthen Students' Nationalism

1.5. Preparation

Before commencing outbound learning activities, thorough preparation is conducted. This includes checking students' attendance at the activity location, ensuring their readiness to participate by starting with a prayer, reminding them of the rules, and directing students to form groups during the presentation observation.

1.5. Introduction

This section provides a general overview of the planned activities and the objectives. The teacher clearly explains the activities to be carried out during the outbound learning process at the location, informs the objectives of these activities, and articulates the benefits of the materials to be discussed. Additionally, the teacher explains the evaluation or assessment system to be implemented after the activities.

1.5. Core Activities

The core activities constitute the main part of outbound learning. Through an active learning and contextual approach, students are engaged in observation, discussion, and assignments. They are grouped to observe assigned materials, express their experiences, seek meaning from these experiences, and discuss the relationship between local wisdom values and the concept of nationalism. Furthermore, information technology can be utilized to support the learning process, such as multimedia presentations on local culture or the use of applications for group discussions.

1.5. Conclusion

The conclusion section summarises the learning outcomes and provides individual assignments for students to reflect on what they have learned. The learning session concludes with a prayer, leaving a spiritual impression on students regarding the spiritual value of learning.

1.5. Assessment Process

Implementing outbound learning activities is supported by an assessment process using two types of observation sheets. The first observation sheet assesses students' learning processes, focusing on expressing behavior or attitudes while presenting local cultural materials. Meanwhile, the second observation sheet evaluates the implementation of learning activities in presenting local cultural materials, providing a holistic view of the learning process. Information technology can also be employed in the assessment process, such as using applications to record student activities or online assessment systems.

1.6 Analysis of Student Behavior in Outbound Learning Based on Local Wisdom to Enhance Nationalism

The assessment of student behavior and learning processes in implementing the local wisdom-based outbound learning model, augmented with Information Technology (IT), to enhance students' nationalism reveals the following:

- 1) **Curiosity and Understanding of Traditional Houses**
Students are curious about traditional houses' meaning, shape, size, and function. Observers noted consistent engagement with the material, facilitated by interactive multimedia presentations and virtual tours, with scores ranging from 2 to 4 across different groups.
- 2) **Preservation Ethos**

Students' notable willingness to preserve traditional houses is demonstrated by their avoidance of vandalism. This commitment is reinforced through virtual reality simulations showcasing the importance of cultural preservation. Scores in this category range from 2 to 4.

- 3) **Compliance with Norms**
Students generally adhere to the norms within traditional houses, maintaining calmness and devotion during activities. Digital modules and gamified learning experiences contribute to reinforcing these norms. Scores range from 2 to 4.
- 4) **Cleanliness Maintenance**
Students show a commendable willingness to keep traditional houses clean, refraining from littering. Augmented reality applications highlight the significance of cleanliness in cultural heritage sites. Scores range from 3 to 4.
- 5) **Group Cohesion**
During group activities, students demonstrate an ability to maintain group cohesion and respect diverse opinions. Online collaborative platforms and virtual breakout rooms facilitate effective group discussions. Scores range from 2 to 4.
- 6) **Understanding Symbolism**
Students grasp the symbolism of the hornbill as a unifying symbol in Dayak community culture. Multimedia presentations and interactive quizzes deepen their understanding of cultural symbolism. Scores reflect a good understanding, ranging from 3 to 4.
- 7) **Enthusiasm and Pride**
Students exhibit high enthusiasm and pride in discussing the symbolism of the hornbill as a representation of Dayak community patriotism. Digital storytelling and peer-to-peer discussions foster a sense of pride in cultural heritage. Scores range from 2 to 3.
- 8) **Affection Towards Wildlife**
Students display affection towards the hornbill, indicating a desire to preserve local wildlife. Virtual reality experiences allow students to interact with virtual replicas of the hornbill, fostering empathy and conservation awareness. Scores range from 3 to 4.

Analysis of Scores:

- 1) The total scores across groups vary, with averages ranging from 23.5 to 27.
- 2) The percentage of behavior manifestation falls between 72.44% and 82.81%, categorizing the observed behavior as "Good" to "Excellent" based on predefined criteria.
- 3) Students' behaviors align with indicators of nationalism, reflecting curiosity, respect for heritage, adherence to norms, cleanliness, pride, and affection towards cultural symbols.

1.7 Behavioral Analysis and Its Implications for Nationalism Enhancement

The elucidation of observed behaviors corresponds to indicators of nationalism: ancestral love, unity values, solidarity, and wildlife preservation. Utilizing the outbound learning approach with a thematic focus on traditional houses and the hornbill, rich in local wisdom values, allows students to internalize positive behaviors and attitudes. Technology facilitates this process, as digital resources and multimedia presentations enhance students' engagement and understanding of the material. Students can explore cultural artifacts and heritage sites through interactive platforms and virtual tours, fostering a deeper connection to their cultural roots and national identity. Thus, it can be concluded that this outbound learning approach, coupled with technology integration, effectively strengthens students' nationalism.

Based on the analysis from the provided observations, the average percentage of observed behavior related to the presentation of Mandau and Shield material in outbound learning based on local wisdom is 73.57%. This percentage indicates that students' behavior meets the criteria of good quality. Students generally demonstrate expected behaviors and attitudes corresponding to the observed aspects.

The behaviors exhibited by students align with indicators of nationalism, such as:

- 1) Demonstrating bravery and valor in understanding the significance of the mandau.
- 2) Displaying strength and dignity while handling the mandau.

- 3) Showing unwavering confidence in the mystical power of the mandau.
- 4) Upholding principles steadfastly when discussing the shield's symbolism.
- 5) Exhibiting independent spirit and enthusiasm in observing the shield presentation.
- 6) Displaying resilience and determination during discussions about the shield.
- 7) Showing a keen interest in the shield's role as a protective defense mechanism.

Through outbound learning, supported by technology, students acquire knowledge and internalize values related to nationalism, contributing to their holistic development as responsible citizens with a strong sense of cultural identity and heritage preservation.

1.8 Analysis of Student Behavior in the Presentation of Spear and Gong Material

The explanation regarding these values and behaviors refers to indicators of nationalism. Outbound learning employs spear and gong media, rich with local wisdom values, allowing students to internalize positive behaviors and attitudes. Thus, it can be concluded that this outbound learning can strengthen students' nationalism.

Based on the analysis, the average percentage of observed behavior related to Spear and Gong material presentation in outbound learning based on local wisdom is 77.50%. This percentage indicates that students' behavior meets the criteria of good quality. Students generally demonstrate expected behaviors and attitudes corresponding to the observed aspects.

The behaviors exhibited by students align with indicators of nationalism, such as:

- 1) Demonstrating a spirit of cooperation during group discussions on the presentation of the spear, reflecting a patriotic spirit.
- 2) Displaying confidence and courage in expressing opinions during discussions about the spear, showing determination in their beliefs.
- 3) Showing seriousness and attentiveness during the presentation of the spear as a symbol of strength, fostering a sense of dedication.
- 4) Expressing fascination with the sound of the gong, reflecting a sense of solidarity in preserving cultural heritage, especially among border communities.
- 5) Maintaining group cohesion in discussing the meaning of the gong as a symbol of unity among Dayak Bidayuh communities, emphasizing collective interests, especially in border communities.
- 6) Demonstrating enthusiasm and pride in discussing the significance of the gong as a symbol of patriotism among Dayak Bidayuh communities, reflecting a heroic spirit and pride in upholding ancestral dignity.
- 7) Showing mutual respect during discussions about the gong, reflecting a sense of mutual appreciation.

Through outbound learning, students acquire knowledge and internalize values related to nationalism, contributing to their holistic development as responsible citizens with a strong sense of cultural identity and heritage preservation.

Incorporating information technology into outbound learning sessions can enhance students' engagement and comprehension of cultural values. Utilizing multimedia presentations, virtual tours of cultural sites, or interactive quizzes about local traditions can supplement traditional teaching methods, making the learning experience more dynamic and immersive. Additionally, online forums or social media groups can be utilized for students to continue discussions and share insights beyond the classroom, fostering a sense of community and collaboration in exploring and preserving their cultural heritage.

1.9 Analysis of Student Behavior in the Presentation of Gawai Dayak Ceremony and Longhouse Material

The explanation regarding these values and behaviors refers to indicators of nationalism. Outbound learning employs Gawai Dayak Ceremony and Longhouse media, rich with local wisdom values, allowing students to internalize positive behaviors and attitudes. Thus, it can be concluded that this outbound learning can strengthen students' nationalism.

Based on the analysis, the average percentage of observed behavior related to the Gawai Dayak Ceremony and Longhouse material presentation in outbound learning based on local wisdom is 77.81%. This percentage indicates that students' behavior meets the criteria of good quality. Students generally demonstrate expected behaviors and attitudes corresponding to the observed aspects.

The behaviors exhibited by students align with indicators of nationalism, such as:

- 1) Demonstrating calmness and reverence while witnessing and listening to stories accompanied by photos of the Gawai Dayak Ceremony, reflecting gratitude to the divine.
- 2) Maintaining collective calmness while witnessing and listening to stories accompanied by photos of the Gawai Dayak Ceremony, prioritizing collective interests, especially in border communities.
- 3) Showing empathy while witnessing and listening to stories accompanied by photos of the Gawai Dayak Ceremony, demonstrating mutual respect.
- 4) Expressing affection towards each other while witnessing and listening to stories accompanied by photos of the Gawai Dayak Ceremony, displaying mutual love.
- 5) Owning a longhouse reminds each other to maintain cleanliness when visiting, showing a commitment to communal integrity, especially in border communities.
- 6) Helping each other understand the longhouse, such as exploring its characteristics demonstrating mutual assistance, especially in border communities.
- 7) Harmoniously understanding the longhouse, for example, being open to others' opinions while exploring its characteristics, showing empathy towards others' feelings and thoughts, especially in border communities.
- 8) Caring for the longhouse and its surroundings, such as accurately expressing its characteristics and demonstrating mutual affection, especially in border areas.

Through outbound learning, students acquire knowledge and internalize values related to nationalism, contributing to their holistic development as responsible citizens with a strong sense of cultural identity and heritage preservation.

Integrating information technology into outbound learning sessions can enhance students' engagement and comprehension of cultural values. Utilizing multimedia presentations, virtual tours of cultural sites, or interactive quizzes about local traditions can supplement traditional teaching methods, making the learning experience more dynamic and immersive. Additionally, online forums or social media groups can be utilized for students to continue discussions and share insights beyond the classroom, fostering a sense of community and collaboration in exploring and preserving their cultural heritage.

1.10 Analysis of Process and Student Response in Outbound Learning Based on Local Wisdom Values

A recapitulation of the assessment focused on implementing outbound learning models based on local wisdom values to strengthen students' nationalism has been conducted. When presenting materials such as Pangah Custom House and Enggang Bird replica, Shields & Mandau, Radangk House, Spears, and Gong, as well as the Presentation of Dayak Festival, the average score of the assessment results shows that the learning process conducted is excellent.

The percentage of teacher actions ranges from 91.25% to 92.81%, indicating that the learning process is excellent. Student responses to the material are also very positive, with 71.8% of students giving very positive responses, 21.9% positive responses, and only 6.3% responding hesitantly.

Outbound learning based on local wisdom values has a significant impact on strengthening students' nationalism. Assessment of the learning process shows that this approach successfully actualises local wisdom values. Additionally, the positive student responses indicate that values such as preserving ancestral traditions, maintaining national integrity, respecting diversity, and loving the homeland can be effectively internalized through this learning method.

By strengthening national pride and awareness of cultural values, it is hoped that students can become agents of change capable of preserving and developing the nation's cultural heritage.

The utilization of information technology can be one of the supports in outbound learning based on local wisdom values. Digital applications or platforms can enrich learning materials by providing interactive content about local culture and traditions. Moreover, information technology also enables connections between students from various regions or even countries, allowing them to exchange experiences and understandings about the cultural values they possess.

By wisely utilizing information technology, outbound learning can become more dynamic and engaging for students. This can help them better understand and appreciate the cultural heritage they possess, as well as strengthen national pride and identity.

2 CONCLUSION

The development model leverages technology to facilitate learning activities that create an enjoyable and interactive learning environment to foster positive mental attitudes by actualizing and internalizing the values of local wisdom. Positive mental attitudes, including positive mindsets, attitudes, behaviors, creativity, innovation, commitment, resilience, patience, and openness to positive relationships based on trust, alongside a continuous pursuit of excellence, contribute significantly to strengthening nationalism.

Through the analysis of its implementation, utilizing both limited trials and extensive trials on seventh-grade students at Jagoi Babang Public Junior High School 1, involving four presentations of local cultural products, local wisdom values, and expressions of nationalism, such as: i) Pangah Traditional House and Enggang Bird replica; ii) Shields & Mandau; Radangk House, iii) Spears and Gong; iv) Presentation of Dayak festival, an average percentage value of behavior manifestation was obtained at 77.55. This percentage value related to student behavior indicates behavior aligned with good quality criteria.

While this study provides valuable insights into the effectiveness of integrating local wisdom values through technology-based outbound learning, several limitations exist. Firstly, the study was conducted in a specific school environment with a particular group of students, limiting the generalizability of the findings. Additionally, the assessment focused primarily on behavioral manifestations, potentially overlooking other dimensions of learning outcomes.

Further research could explore the long-term effects of technology-mediated outbound learning on students' attitudes, values, and academic performance across diverse educational settings. Additionally, investigating the role of teacher training and support in effectively integrating local wisdom into technology-enhanced learning environments would provide valuable insights into optimizing educational practices. Finally, exploring innovative technological tools and methodologies to enhance the integration of local wisdom into the curriculum could open new avenues for promoting cultural preservation and nationalism among students.

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