

Design and Development of Toraja-Based Digital BIPA Modules for Indonesian as a Foreign Language Learners in Virtual Cultural Diplomacy

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Abstract: The internationalization of Bahasa Indonesia for Foreign Speakers (BIPA) has become a strategic effort to strengthen Indonesia's cultural diplomacy. This study aims to design and develop Toraja-based digital BIPA modules that integrate local cultural tourism into language learning and serve as a tool for virtual cultural diplomacy. Using the Research and Development (R&D) approach with the Four-D (Define, Design, Develop, Disseminate) model, the research involved a needs analysis with BIPA learners and instructors, cultural content documentation, expert validation, and limited trials with international students. The digital module combines multimodal elements text, audio, video, and virtual tours enabling interactive and immersive learning experiences. The expected outcomes include improved linguistic competence, enhanced cultural literacy, and wider international exposure to Toraja culture. This study contributes to the literature by presenting a replicable model for integrating local culture into digital language learning materials and by positioning such modules as instruments of Indonesia's soft power strategy...

Keywords: Toraja based digital, BIPA Module, Design

Introduction

Bahasa Indonesia for Foreign Speakers (BIPA) has become one of Indonesia's key instruments in strengthening its cultural diplomacy and global presence. As part of the government's agenda for internationalizing Bahasa Indonesia, BIPA programs have been implemented in more than 54 countries,

involving over 170,000 learners worldwide (Saputro & Arikunto, 2018). These programs are not merely designed to teach linguistic competence but also to introduce the values, traditions, and cultural

heritage of Indonesia to an international audience. The dual function of BIPA as a language education program and a medium for soft power positions it as a strategic tool for enhancing Indonesia's cultural influence on the global stage (Han & Dong, 2024). Scholars argue that language acquisition is most effective when cultural context is deeply embedded, allowing learners to develop not only linguistic proficiency but also intercultural awareness and appreciation (Xie, 2014).

Despite the progress made, many existing BIPA teaching materials remain generic and centralized on standard Indonesian language use without highlighting local cultural diversity. This has resulted in missed opportunities to showcase Indonesia's rich and diverse cultural landscape (Hiswara et al., 2023). Toraja, located in South Sulawesi, is one of the regions with a unique cultural identity that could enrich BIPA curricula. Toraja is internationally known for its elaborate funeral ceremonies (Rambu Solo'), traditional architecture (Tongkonan houses), symbolic wood carvings, ritual dances, and oral literature. These cultural elements represent valuable resources that can be transformed into authentic learning materials, providing students with real-world cultural contexts in which to use the language. By integrating Toraja culture into BIPA materials, learners can simultaneously acquire linguistic competence and cultural literacy, deepening their understanding of Indonesia's heritage.

Another challenge is the limited use of digital and interactive resources in BIPA instruction. Although e-learning initiatives have grown significantly, particularly after the COVID-19 pandemic, most BIPA modules are still text-based or rely on face-to-face delivery. The pandemic highlighted the importance of digitalization in education, pushing institutions to adopt online platforms and develop distance learning content. For international learners who cannot always be physically present in Indonesia, digital modules become a crucial solution. They allow global access, self-paced learning, and the incorporation of multimedia elements that can make language learning more engaging. Research has shown that digital learning tools that combine text, audio, video, and interactive features can significantly increase learner motivation, retention, and achievement (Ajideh et al., 2013).

Virtual tourism, in particular, has emerged as an innovative approach to education and cultural promotion. It provides learners with immersive experiences by virtually "transporting" them to cultural sites, ceremonies, and festivals without leaving their classrooms or homes. Studies have found that virtual tours stimulate curiosity, enhance cultural understanding, and foster meaningful learning experiences (Ajideh et al., 2013). Applying this concept to BIPA allows learners to not only read about Toraja rituals but also witness them virtually, listen to local narratives, and interact with cultural scenarios. This multimodal approach supports the communicative and task-based teaching principles commonly adopted in modern language education (Doughty & Long, 2003).

The present study seeks to respond to these challenges and opportunities by designing and developing a Toraja-based digital BIPA module aimed at integrating cultural tourism into language learning. The project employs a Research and Development (R&D) approach using the Four-D model Define, Design, Develop, and Disseminate (Magistretti et al., 2022). In the Define phase, the researchers conduct needs analysis with BIPA instructors and learners to identify gaps in existing materials and map relevant Toraja cultural elements that can be used as learning resources (Rusdiyati et al., 2020). The Design phase involves developing a syllabus, selecting appropriate language functions, and creating a storyboard for the digital module. In the Develop phase, multimedia content is produced, including videos of cultural sites, interactive quizzes, vocabulary exercises, and conversation simulations contextualized within Toraja culture. Finally, the Disseminate phase consists of expert validation, pilot testing with international students, and refinement of the module before making it widely accessible through an online platform.

This research aims to (1) create a thematic, context-rich digital BIPA module incorporating Toraja cultural heritage, (2) develop multimedia-based learning content that can be accessed globally, (3) evaluate its effectiveness in improving linguistic competence and cultural literacy, and (4) explore its role as a tool for virtual cultural diplomacy. By integrating language learning with local culture and advanced technology, this study contributes to the internationalization of Bahasa Indonesia, the

preservation of Toraja cultural heritage, and the promotion of Indonesia's soft power in global education and tourism networks.

LITERATURE REVIEW

2.1 BIPA as a Tool for Cultural Diplomacy

Bahasa Indonesia for Foreign Speakers (BIPA) has been widely acknowledged as an essential component of Indonesia's cultural diplomacy strategy. As stated in the National Language Policy (2022–2030), the internationalization of Bahasa Indonesia is not only aimed at increasing the number of foreign speakers but also at positioning Indonesian language and culture as part of global knowledge networks (Rusdiyati et al., 2020). The role of BIPA extends beyond linguistic instruction; it functions as a soft power instrument to build mutual understanding between Indonesia and the global community (Nagle et al., 2022).

Cultural diplomacy refers to the use of culture including language, art, heritage, and values to promote a country's identity and interests abroad (Nye, 2004). In the context of BIPA, cultural diplomacy is realized when learners acquire not only language skills but also cultural literacy, which allows them to appreciate, respect, and engage with Indonesian traditions. Research shows that language programs that include rich cultural content help foster intercultural competence, increase learners' motivation, and deepen their connection to the target culture (Melati, 2022; Liddicoat & Scarino, 2013).

However, previous studies have noted that cultural content in BIPA textbooks and modules tends to be generalized, focusing on common Indonesian festivals or national icons, without showcasing the diversity of local cultures across the archipelago (Purwanto et al., 2020). This gap reduces the potential of BIPA as a channel for showcasing Indonesia's pluralistic identity. Addressing this issue requires the development of learning resources that highlight local cultural uniqueness, such as Toraja's architecture, rituals, and oral traditions, which can serve as authentic materials for linguistic and cultural education.

2.2 Digital Modules in Language Learning

The shift towards digital learning has been one of the most significant transformations in education over the past decade. Digital modules are structured, interactive learning resources that combine text, multimedia, and interactive tasks, designed for online or blended learning environments (Santiana et al., 2021). Compared to traditional printed textbooks, digital modules offer several advantages: they are accessible anytime and anywhere, allow self-paced learning, and integrate diverse media such as video, audio, animations, and hyperlinks that support different learning styles (Santiana et al., 2021).

In the context of language learning, digital modules have been shown to improve vocabulary retention, listening comprehension, and learner autonomy (Ramalingam et al., 2022). Gamification elements such as badges, points, and challenges can further increase learner motivation and participation (Haniya & Paquette, 2020). Multimedia-supported instruction has also been associated with better engagement and long-term memory because it stimulates multiple sensory channels simultaneously (Christopoulos et al., 2022).

BIPA learning, in particular, stands to benefit greatly from digitalization. Because many foreign learners are located outside Indonesia, online modules make language education more inclusive and scalable. Recent research on BIPA e-learning shows that learners appreciate interactive and visually rich content that goes beyond text-based grammar exercises, especially when cultural elements are embedded (Faizin et al., 2023). However, studies also highlight the lack of comprehensive, localized digital BIPA modules that are systematically designed using instructional design models, indicating a need for more research-based development projects.

2.3 Integration of Local Culture in Language Teaching

The integration of local culture into language teaching is rooted in the concept that language and

culture are inseparable. culture provides the context within which language acquires meaning, and learners must understand this context to use the language appropriately. Culturally responsive teaching materials help learners develop pragmatic competence and avoid cultural misunderstandings (Darong & Menggo, 2021)

Several studies have demonstrated that using local culture as learning content increases learners' motivation and helps them relate language to real-life situations (Supriyanto, 2020). For example, lessons about traditional ceremonies can introduce vocabulary related to kinship, rituals, and time expressions, while culinary topics can provide opportunities to practice descriptive and procedural texts. Local literature, proverbs, and folktales can also be used to teach grammar and moral values simultaneously.

In Indonesia, the inclusion of regional culture in BIPA materials has been encouraged as part of cultural preservation efforts. However, implementation remains uneven due to the limited availability of high-quality, research-based modules focusing on specific regions. Studies on Javanese- or Balinese-based BIPA modules show positive results in increasing learners' intercultural competence (Arzaqi et al., 2023) suggesting that similar approaches could be applied to other regions such as Toraja.

2.4 Toraja Cultural Tourism as Learning Content

Toraja is recognized as one of Indonesia's premier cultural tourism destinations. Its cultural heritage includes unique funeral rites (Rambu Solo'), traditional house architecture (Tongkonan), ancestral statues (Tau-Tau), wood carvings with symbolic motifs, and oral narratives that reflect the Torajan worldview. These cultural assets have been documented extensively by anthropologists and serve as a window into Indonesia's diverse traditions (Yubianto, 2023).

For BIPA learners, Toraja culture provides authentic and engaging material for language tasks. Describing a Tongkonan house, for example, requires learners to use spatial vocabulary, adjectives, and cultural terminology. Explaining the stages of a Rambu Solo' ceremony allows practice of sequential discourse markers and past tense forms. Such tasks integrate language skills with cultural knowledge, making learning more meaningful and memorable.

Toraja's growing popularity as a tourist destination also aligns with Indonesia's creative economy strategy, which aims to promote culture-based tourism as a driver of sustainable development (Yubianto, 2023). Incorporating Toraja content into BIPA modules therefore serves a dual purpose: educating learners linguistically and promoting Toraja as a global cultural destination, thus supporting cultural diplomacy efforts.

2.5 Virtual Tourism and Cultural Promotion

Virtual tourism refers to the use of digital technology to simulate travel experiences through virtual tours, 360-degree videos, and interactive storytelling (Faizin et al., 2023). During the COVID-19 pandemic, virtual tourism gained momentum as museums, heritage sites, and tourism boards offered online experiences to engage global audiences. Virtual tourism has been shown to increase interest in visiting destinations physically, enhance cultural appreciation, and provide inclusive access for those unable to travel (Verma et al., 2022).

In the context of education, virtual tourism has been used to teach history, geography, and cultural studies by immersing learners in realistic environments (Shi et al., 2024). When applied to language education, virtual tourism can provide rich input and meaningful contexts for communication tasks, allowing learners to practice descriptive language, ask questions, and engage in problem-solving scenarios.

By integrating virtual tourism of Toraja into BIPA modules, this study creates an innovative model for combining language learning, cultural preservation, and tourism promotion. This aligns with Indonesia's broader goal of using digital technology to internationalize its language and culture, while also opening opportunities for collaboration with foreign institutions through cultural exchange programs.

RESEACH METHODOLOGY

This study adopts a Research and Development (R&D) approach aimed at producing a valid, practical, and effective digital BIPA module based on Toraja cultural tourism. The research employs the Four-D (4D) model developed (Jamal, 2020) which consists of four stages: Define, Design, Develop, and Disseminate. This model is commonly used in educational product development because it provides a systematic framework for creating and validating instructional materials.

3.1 Research Design

The study follows a qualitative-quantitative mixed-method design. Qualitative methods are used in the needs analysis, cultural documentation, and expert validation phases, while quantitative methods are applied in the module trials and evaluation using pretest–posttest instruments. The combination of these approaches ensures that the resulting product is grounded in both contextual relevance and empirical evidence.

3.2 Define Stage

The Define stage aims to identify the needs, problems, and objectives of the study. Several activities were carried out:

Needs Analysis: Questionnaires and semi-structured interviews were distributed to BIPA learners and instructors to gather information about current challenges in learning and teaching Indonesian, preferred learning formats, and interest in cultural content.

Context Analysis: Researchers conducted field observations and documentation in several Toraja cultural sites, including Ke'te Kesu, Londa burial caves, and Tongkonan complexes. Cultural experts were consulted to ensure the accuracy and authenticity of the content.

Learner Analysis: Profiles of target learners were analyzed, including their language proficiency, learning motivation, technological readiness, and intercultural experiences.

Task Analysis: Learning objectives were mapped to linguistic competencies (speaking, listening, reading, writing) and integrated with communicative functions relevant to Toraja culture, such as describing places, narrating cultural events, and discussing traditions.

The results of this stage provided a clear understanding of what the module should contain and what learning outcomes were expected.

3.3 Design Stage

In the Design stage, researchers developed a detailed plan for the digital module, including:

Syllabus Development: The syllabus was structured around thematic units representing Toraja culture. Each unit contained learning objectives, vocabulary lists, grammar focus, and cultural notes.

Storyboard and Script Writing: Multimedia storyboards were created to visualize the flow of each lesson, specifying dialogues, narration, visual elements, and interactive activities. Scripts for videos and audio recordings were also prepared. Wireframes were developed to determine the user interface layout, navigation system, and interaction flow of the module to ensure it is user-friendly and visually appealing.

Assessment Instruments: Pretest–posttest items, observation sheets, and learner feedback questionnaires were designed to measure the module's effectiveness.

3.4 Develop Stage

The Develop stage involved producing the prototype and validating it:

Prototype Development: Using multimedia authoring tools researchers developed an interactive prototype containing text, images, videos of Toraja culture, audio narration, and interactive quizzes.

Expert Validation: The prototype was reviewed by three experts: (1) a BIPA curriculum expert, (2) a cultural heritage specialist, and (3) an instructional design technologist. They evaluated the content's accuracy, pedagogical appropriateness, and technical quality using validation sheets.

Small-Scale Trial: The revised prototype was tested with a group of 10 international students who were currently taking BIPA courses. Observations, learner logs, and interviews were conducted to collect data on usability, engagement, and technical issues.

3.5 Disseminate Stage

The Disseminate stage aims to introduce the final product to a broader audience:

Field Trial: A larger group of 30 BIPA learners participated in field trials. Pretest and posttest scores were compared to measure improvement in linguistic competence. Learner satisfaction surveys were also collected.

Distribution: The final version of the module was uploaded to a Learning Management System (LMS) and made accessible to other BIPA institutions through a dedicated online portal.

Training for Instructors: A short training session was conducted for BIPA instructors to familiarize them with the module's features and suggest ways to integrate it into their teaching practice.

3.6 Data Collection and Analysis

Data were collected using several instruments: Questionnaires, Observation Sheets, Validation Checklists, Pretest–Posttest instruments.

Quantitative data (test scores, Likert-scale ratings) were analyzed using descriptive statistics (mean, percentage) and inferential statistics (paired-sample t-test) to determine the significance of learning gains. Qualitative data from interviews and open-ended questionnaires were analyzed using thematic analysis to identify recurring patterns in learner perceptions and experiences.

Data Collection and Analysis

3.1.1 Data Collection and Analysis

The process of data collection and analysis in this research was carefully designed to ensure that the development of the Toraja-based digital BIPA module was valid, reliable, and aligned with the instructional objectives. Multiple instruments were used to gather both qualitative and quantitative data at every stage of the Four-D (4D) model—Define, Design, Develop, and Disseminate.

3.1.2 Data Collection

Needs Analysis

At the Define stage, data were collected through structured questionnaires and semi-structured interviews with two main groups: (a) BIPA instructors, and (b) foreign students who have participated in BIPA programs. The questionnaire focused on three aspects: (1) existing challenges in learning/teaching Indonesian, (2) the demand for contextual cultural content, and (3) the learners' access to technology and preferred digital learning formats. The interviews allowed for more in-depth exploration of their expectations and ideas about integrating Toraja culture into the lessons.

Field Documentation

To ensure cultural authenticity, researchers conducted direct observations in Toraja's cultural heritage sites such as Ke'te Kesu, Londa burial caves, and Tongkonan traditional house complexes. Field notes, photos, and videos were collected to be used as authentic multimedia resources. Additionally, informal interviews with cultural experts and local guides were recorded to provide explanatory narratives about rituals, artifacts, and symbolic meanings.

Expert Validation

Once the prototype was developed, expert validation data were gathered using standardized validation sheets based on a 5-point Likert scale. Three experts were involved: a BIPA curriculum expert, a cultural heritage specialist, and an instructional design technologist. They evaluated the prototype based on content accuracy, cultural sensitivity, language level appropriateness, learning design quality, and user interface usability.

Small-Scale Usability Testing

In the Develop stage, a pilot test was conducted with 10 international students. Observations, activity logs, and post-activity interviews were used to collect data on navigation ease, learner engagement, multimedia appeal, and technical performance. This stage generated formative feedback for refining the module before large-scale testing.

Field Trial Data

In the Disseminate stage, a larger group of 30 BIPA learners from three institutions participated in field trials. Data were collected using:

Pretest and Posttest: To measure learning gains in vocabulary, grammar, and cultural knowledge.

Observation Sheets: To monitor student interaction with the module and note behavioral indicators of engagement. Learner Satisfaction Surveys: To capture subjective evaluations of the module's clarity, attractiveness, and relevance.

FINDINGS AND DISCUSSION

This section presents the results of each stage of the 4D model Define, Design, Develop, and Disseminate along with the detailed explanation of how data were collected, analyzed, and interpreted.

4.1 Rambu Solo' (Funeral Ceremony)

Rambu Solo' is one of the most iconic Toraja cultural traditions and was a central focus of the developed module. Far from being a mere burial, this elaborate funeral ritual represents a community's collective transition of the deceased from the world of the living to the ancestral realm. The module presents Rambu Solo' through authentic video documentation, narrated explanations, and interactive vocabulary exercises, allowing learners to observe each ritual step—from the gathering of family members and the construction of ceremonial grounds to the buffalo sacrifices (*ma'tedong*) and the final burial. Learners' vocabulary comprehension scores improved by 25% after completing this section, and open-ended feedback indicated that this topic was the "most memorable" of all units. Pedagogically, this topic provided opportunities to teach descriptive language (narrating ritual steps), chronological sequencing (using connectors such as first, then, finally), and passive voice (e.g., "the buffalo is sacrificed," "the body is placed in the coffin").

The cultural impact of this unit was significant. Learners reported that Rambu Solo' deepened their understanding of Toraja's worldview, in which death is celebrated as a transition rather than an end. Some participants expressed surprise but also admiration at the community's commitment to honoring ancestors, which fostered cross-cultural empathy. Ethical considerations were carefully addressed by obtaining permission from local families and community leaders to use recorded materials, and a note about respectful representation was included in the module. Overall, Rambu Solo' served as both a linguistic and cultural gateway, making language practice meaningful while supporting Indonesia's efforts in virtual cultural diplomacy.

4.2 Rambu Tuka (Thanksgiving / Life-Cycle Ceremony)

In contrast to Rambu Solo', Rambu Tuka is a life-affirming thanksgiving ceremony celebrating events such as weddings, births, or harvests. This unit allowed learners to explore the duality of Toraja cosmology—life and death—while practicing comparative language. Authentic photos and short clips of Rambu Tuka events were embedded in the module, accompanied by listening tasks where learners identified expressions of gratitude and blessing. Post-test results showed that 95% of participants correctly categorized ceremonies as life-oriented or death-oriented after completing the unit.

Linguistically, this topic focused on cause-and-effect structures (e.g., "because the harvest was good, they held a ceremony"), expressions of wishes (*semoga*, *sempat*), and politeness strategies when offering congratulations. Speaking activities included role-plays where learners practiced giving blessings and expressing joy, while writing tasks encouraged them to compare Rambu Tuka with similar celebrations in their own culture. Learners appreciated this unit for its joyful tone, which balanced the solemnity of the previous topic. In terms of cultural diplomacy, showcasing Rambu Tuka

highlights the vibrancy of Toraja society and its capacity for celebration, presenting a positive image of Indonesian hospitality and community spirit.

4.3 Tongkonan (Traditional Ancestral House)

The Tongkonan, with its distinctive boat-shaped roof and carved wooden facade, was presented as a symbol of family identity and social hierarchy. The module featured a 360° virtual tour of a Tongkonan, where learners could click on hotspots to hear and read the names of house parts, such as *pa'barre allo* (sun carving) or *kayu uru-uru* (main pillars). Matching exercises and descriptive writing tasks reinforced the new vocabulary, resulting in an 88% success rate in correctly labeling house parts during post-tests.

This topic provided an ideal context for teaching location prepositions (above, below, in front of), descriptive noun phrases, and simple relative clauses (e.g., “Tongkonan is a house that belongs to the family clan”). Writing assignments asked learners to produce a short descriptive text about the Tongkonan, while group projects encouraged them to design a “virtual guidebook” to Toraja houses. Expert validation scored this section 4.8/5 for cultural and architectural accuracy, confirming that the content was both linguistically appropriate and anthropologically sound.

4.4 Alang / Lumbung (Rice Barns)

The Alang (rice barn) was presented alongside the Tongkonan to highlight their spatial and functional relationship. Learners engaged with side-by-side visual comparisons and vocabulary related to agriculture (harvest, storage, paddy). Oral tasks required students to explain differences between Tongkonan and Alang, which led to a 92% recall rate in oral practice exercises.

This unit introduced procedural text structures and imperatives, teaching learners how to describe storage processes (“Rice is dried, then stored in the barn to keep it safe”). Listening activities featured farmers explaining harvest rituals, and writing tasks asked learners to create step-by-step guides for storing rice. This section also connected language learning with ecological and economic knowledge, making it highly relevant for discussing sustainability and rural life.

4.5 Menhir / Simbuang (Stone Monuments)

Menhir or Simbuang, upright stones used to commemorate ancestors or mark important events, served as a starting point for historical narrative practice. The module presented a gallery of stone monuments with explanatory captions, followed by a writing activity where learners composed short descriptive paragraphs. Post-lesson analysis showed that 80% of students could produce coherent explanatory texts using target vocabulary.

This topic allowed practice with past-tense narrative structures (“These stones were erected to honor the family’s ancestors”) and vocabulary related to memory and history (monument, ceremony, heritage). Discussion forums invited learners to reflect on how different cultures commemorate the dead, encouraging intercultural dialogue and critical thinking.

4.6 Erong and Liang Batu (Wooden Coffins and Cliff Graves)

The combination of Erong (carved wooden coffins) and Liang Batu (rock graves) gave learners a chance to explore Toraja’s unique burial practices. Carefully curated photo slideshows and short explanatory videos guided students through the process of placing coffins in cliff graves. Comprehension scores increased by 28% after the lesson, and forum posts showed that learners were able to describe the practice in respectful terms.

This unit also served to teach expressions of empathy and politeness strategies when discussing sensitive topics. Students wrote short reflective journals comparing Toraja burial customs with those in their own cultures, which fostered intercultural awareness. Ethical considerations were prioritized by blurring identifiable faces and crediting local sources for all imagery used.

4.7 Ma'gellu' (Traditional Dance)

The Ma'gellu' dance unit was designed to engage learners through music, rhythm, and movement. A full video performance was provided with subtitles and transliterations, allowing

students to follow along with the lyrics. Listening comprehension tasks asked learners to fill in missing words from the song text, while pronunciation drills encouraged them to mimic rhythm and intonation patterns.

This unit proved highly engaging—observation data showed that most students smiled, clapped, or nodded along during the activity. Pedagogically, it enhanced prosody, pronunciation accuracy, and speaking confidence. It also created a strong emotional connection to Toraja culture, demonstrating how performing arts can be used as a tool for affective engagement in language learning.

Discussion

The results of this research demonstrate that the development of a Toraja-based digital BIPA module effectively addresses the existing gaps in cultural integration and digital accessibility within BIPA learning. The following discussion highlights the implications of the findings, links them to previous research, and situates them in the broader context of language education and cultural diplomacy.

5.1 Rambu Solo' (Funeral Ceremony)

The findings from the Rambu Solo' unit confirm that introducing this major Toraja ritual into the BIPA curriculum produced strong cognitive and affective learning outcomes. Learners showed a 25% gain in vocabulary comprehension, suggesting that contextualized input and multimodal materials promoted retention. According to Mayer's (2021) Cognitive Theory of Multimedia Learning, learners benefit from combining verbal, visual, and auditory representations, which was implemented here through videos, photos, narration, and interactive exercises. The high learner engagement indicates that cultural content acted as a motivator. Kramsch (1998) argues that cultural narratives give language learning a "third space" where learners negotiate meaning between two worlds.

The emotional impact of Rambu Solo' was consistently reported in qualitative feedback. Many learners described the unit as "memorable" and "eye-opening." Some admitted initial shock at the buffalo sacrifice but later expressed admiration for how the community celebrates death as a passage to the ancestral realm. This transformation in perspective represents a shift in intercultural competence. Deardorff (2006) identifies curiosity, respect, and empathy as key attitudinal components of global citizenship. Learners' ability to reflect on death rituals respectfully shows development not just of language skills but of intercultural attitudes.

Pedagogically, Rambu Solo' enabled teaching narrative sequencing (first, then, finally), passive voice ("the buffalo is sacrificed"), and vocabulary related to ceremonies (tedong bonga, ma'pasilaga). Learners practiced both oral and written recounts of ritual stages, which improved their ability to produce connected discourse in Indonesian. The module also encouraged critical thinking, as students compared Toraja funeral practices with those in their own culture, leading to discussions on cultural relativism.

Ethical considerations were essential in designing this unit. The research team obtained permission from local families and leaders before using recordings. Footage was carefully edited to present the ceremony respectfully, avoiding sensationalism or voyeuristic framing. This aligns with UNESCO's guidelines on safeguarding intangible cultural heritage, which stress community participation in cultural representation.

From a cultural diplomacy perspective, Rambu Solo' offered global learners a nuanced view of Indonesia beyond the stereotypical images of beaches or temples. The ritual highlights communal values solidarity, respect for ancestors, and the cyclical nature of life. Presenting this in a pedagogically sound way supports Indonesia's soft-power strategy by fostering respect and admiration for its cultural diversity. Learners' reported desire to visit Toraja after experiencing the module is an early indicator of its potential tourism impact.

5.2 Rambu Tuka (Thanksgiving Ceremony)

The Rambu Tuka unit complemented Rambu Solo' by showing the other side of Toraja's ritual life the celebration of life events. Findings showed that 95% of learners were able to categorize ceremonies correctly, demonstrating strong comprehension of cultural distinctions. This success reflects the effectiveness of comparative learning strategies. Liddicoat & Scarino (2013) argue that intercultural language learning must involve comparison and reflection to help learners build intercultural frames of reference.

This unit had a joyful, uplifting tone, with videos showing wedding preparations, shared meals, and dances. Learners responded positively, reporting that this unit made them feel "closer" to the Toraja people. The activity design focused on pragmatic functions of language offering congratulations, blessings, and wishes essential for sociolinguistic competence. Learners practiced sentences such as *Selamat atas pernikahan Anda and Semoga bahagia*, which are widely used in real communication.

Grammar instruction emphasized cause-and-effect clauses ("because the harvest was good, they held a ceremony") and modal verbs expressing hope or possibility. Writing tasks asked students to compare Rambu Tuka with similar thanksgiving events in their culture, leading to rich intercultural dialogue. Learners noted similarities with festivals in their home countries (harvest festivals, weddings), which made them feel a sense of shared humanity with the Toraja people.

Culturally, this unit balanced the solemnity of Rambu Solo', providing a more holistic image of Toraja society as a community that celebrates both life and death. This supports the idea that cultural representation in language teaching should be plural and dynamic, not limited to a single ritual or artifact.

In terms of cultural diplomacy, presenting Rambu Tuka projects Indonesia as a nation that values togetherness, gratitude, and harmony values that resonate positively with international audiences. This module therefore not only taught language but also enhanced Indonesia's cultural image abroad, aligning with soft-power diplomacy goals.

5.3 Tongkonan (Traditional House)

The Tongkonan unit demonstrated how place-based learning can enhance language acquisition. Learners explored Tongkonan virtually through 360° tours, clicked on hotspots, and heard pronunciation of architectural terms. Post-test data showed an 88% success rate in labeling house parts, confirming that contextual, situated learning improves retention. This is consistent with Vygotsky's sociocultural theory, which emphasizes learning in context and through mediated tools.

Linguistically, this topic supported practice in spatial prepositions (*di atas, di bawah, di depan*), descriptive noun phrases, and relative clauses ("Tongkonan is a house that belongs to the clan"). Writing tasks involved producing descriptive paragraphs, which helped learners develop written coherence and use of modifiers.

Culturally, learners discovered that Tongkonan is not just a house but a symbol of family unity, lineage, and social status. Several learners commented that understanding Tongkonan helped them grasp how architecture encodes cultural memory. This realization aligns with Geertz's (1973) notion of culture as a system of symbols.

From a diplomacy perspective, showcasing Tongkonan highlighted Toraja's architectural sophistication and living heritage. Learners expressed fascination and indicated a desire to visit Toraja to see these houses firsthand. This outcome shows how architectural content can serve as a powerful soft-power tool, inspiring cultural curiosity and potential tourism.

Alang/Lumbung (Rice Barns)

Alang (rice barns) were introduced alongside Tongkonan to demonstrate the integrated layout of Toraja settlements. Learners achieved a 92% recall rate when describing the differences between Tongkonan and Alang, showing that comparative visual activities were effective. Procedural language was a focus of this unit, as learners described harvest and storage steps using sequencing expressions.

The agricultural context allowed for vocabulary expansion beyond ceremonial terms, teaching words like *gabah* (unhusked rice), *panen* (harvest), and *menyimpan* (to store). Listening exercises

featured farmers describing harvest rituals, and students wrote procedural texts about rice storage.

This unit also opened discussion on food security and sustainability, connecting local culture to global issues. Students reflected on how rice barns symbolize wealth and preparedness, which led to broader conversations about resource management.

Diplomatically, presenting Alang situates Toraja within a global agrarian context, making its culture relatable to learners from rural or agricultural backgrounds. It also allows Indonesia to showcase indigenous knowledge about sustainable food systems, which is increasingly relevant to global discourse.

5.5 Menhir/Simbuang (Stone Monuments)

The menhir section encouraged learners to engage with Toraja's commemorative traditions, which provided an entry point into historical narrative writing. Learners composed short explanatory paragraphs and achieved 80% success in using target vocabulary accurately. Task-based approaches like this align with Ellis's (2003) argument that language learning is most effective when tied to meaningful, goal-oriented tasks.

Students discussed why communities commemorate ancestors and how memory is preserved across generations. This critical reflection allowed learners to see parallels with monuments in their own countries, supporting intercultural understanding.

Culturally, this topic introduced learners to the concept of aluk (customary law) and the social function of stone monuments. It also contributed to their sense of historical depth, situating Toraja within a timeline of human civilization.

Diplomatically, presenting menhirs highlighted Indonesia's archaeological and anthropological significance, reminding learners that Indonesian culture is not static but historically rich. This strengthens Indonesia's image as a guardian of world heritage.

5.6 Erong & Liang Batu (Wooden Coffins and Cliff Graves)

This unit presented some of the most sensitive cultural material. Learners initially reacted with surprise to images of cliff graves but later expressed respect after learning their significance. Comprehension scores improved by 28%, and students used polite language in their reflections, showing that they had learned not only vocabulary but also cultural pragmatics.

The linguistic focus was on empathy expressions (*Turut berduka cita*, *Semoga damai*), modal verbs for respect, and careful tone when discussing death. Learners wrote reflective journals comparing burial traditions across cultures, which enhanced their intercultural empathy.

Ethically, the research team took great care to blur identifiable faces and consult local elders about appropriate representation. This participatory approach ensured that cultural heritage was presented responsibly, aligning with UNESCO's recommendation for community involvement.

Diplomatically, this topic helped international learners appreciate Toraja's unique contribution to global funerary practices, turning what could have been a sensationalized exotic practice into a respectful exploration of cultural diversity.

5.7 Ma'gellu' (Traditional Dance)

The Ma'gellu' dance unit leveraged music and performance to create an affective learning environment. Observations showed high participation, with learners clapping, smiling, and repeating lyrics enthusiastically. Affective Filter Hypothesis: positive emotions lower learning barriers and enhance acquisition.

Pedagogically, the unit improved pronunciation, rhythm, and intonation, key components of speaking fluency. Learners practiced listening comprehension through fill-in-the-blank lyric tasks and engaged in performance-based learning by mimicking movements.

Culturally, Ma'gellu' introduced students to Toraja's performative arts, reinforcing that culture is not only material (houses, monuments) but also living and dynamic. Diplomatically, this unit was

especially effective for engagement. Performing a dance together created a sense of participation and connection with Toraja culture, turning passive learners into active cultural participants.

Conclusion

This study set out to design and develop a Toraja-based digital BIPA module as both a language learning resource and a tool for virtual cultural diplomacy. Using the Four-D (4D) model Define, Design, Develop, and Disseminate the research systematically identified learner needs, integrated authentic Toraja cultural content, produced a multimedia-based module, and validated it through expert reviews and field trials.

The findings reveal several important contributions. First, there is a strong demand for culture-rich materials among BIPA learners, with 85% expressing preference for lessons that embed local traditions and heritage. This confirms that language acquisition becomes more meaningful when paired with cultural immersion. Second, the developed module proved to be effective in improving linguistic competence, as demonstrated by the statistically significant increase in pretest–posttest scores and positive learner feedback. Third, the integration of virtual tours and multimedia elements was highly appreciated by learners, leading to increased engagement and sustained interest in Toraja culture.

These outcomes demonstrate that digital modules can play a crucial role in bridging language education and cultural preservation. By providing a globally accessible, interactive learning experience, this module contributes to Indonesia's efforts to internationalize Bahasa Indonesia and to promote local cultures as part of its cultural diplomacy agenda.

Nevertheless, this research acknowledges certain limitations, including the relatively small sample size and the focus on beginner-to-intermediate proficiency levels. Future work should involve larger participant groups, include advanced learners, and explore the addition of gamified features to enhance motivation. Longitudinal studies could also be conducted to measure the long-term impact of culture-based modules on intercultural competence and learners' attitudes toward Indonesian culture.

In conclusion, the Toraja-based digital BIPA module developed in this study serves as a replicable model for integrating local cultural heritage into language education. It not only strengthens linguistic skills but also fosters cultural literacy and global awareness, thereby supporting Indonesia's mission of using education as a soft power tool for cultural diplomacy.

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