

## Learning Dayak Literature through Information Systems

Sigit Widiyanto<sup>a,\*</sup>, Dadang Sunendar<sup>b</sup>, Dellia Mila Vernia<sup>a</sup>, Siti Alifah<sup>a</sup>, Hugo Aries Suprpto<sup>a</sup>,  
Arie Wahyu Leksono<sup>a</sup>

<sup>a</sup> Indraprasta PGRI University, East Jakarta, 13760, Jakarta, Indonesia

<sup>b</sup> Universitas Pendidikan Indonesia (UPI), Bandung, 40154, West Java, Indonesia

Corresponding author: \*sigit.widiyanto372@gmail.com

**Abstract**—This study aims to analyze old poetry (mantras) as part of learning literature during the Corona pandemic that is currently hitting Indonesia. Also, this study revitalizes culture by creating an information system application. This study used descriptive qualitative. There were 16 participants, consisting of the village community of Ranyai, cultures, traditional stakeholders, and village heads. This method provided an overview and described the research results on literary culture and an analysis of the structure of prayer/mantra in the Gawai Dayak tradition and its revitalization efforts. The results showed that the structure of the text in the form of mantra utterances was based on the analysis of syntax, rhyme, and rhythm. The context of the Gawai Dayak tradition consists of cultural, situational, social, and ideological contexts. The context of the Gawai Dayak tradition consisted of motion, proxemic, paralinguistic, and material contexts. The design of an information system on Dayak literature could help realize the revitalization of cultural traditions and teaching and learning processes in a directed, effective, and consistent manner during the Corona pandemic. The implication for further research was the opening of further research developments, such as looking for values from tradition. Learning that used information systems was also still wide open to be developed with other more complete applications and under the times.

**Keywords**—Learning; literature; Dayak; information systems.

Manuscript received 19 Jul. 2022; revised 11 Aug. 2023; accepted 26 Sep. 2023. Date of publication 31 Dec. 2023.  
IJASEIT is licensed under a Creative Commons Attribution-Share Alike 4.0 International License.



### I. INTRODUCTION

Although it has been reduced in this modern era, oral traditions can still be found in the community. Oral traditions that develop in society are a medium for teaching past values that already exist in society. Oral tradition art originating from past folk culture is getting less attention because of the lack of inheritance to the next generation. However, the oral tradition contains a lot of education and local wisdom developed in the community. The lack of inheritance impacts the next generation being more familiar with the pop culture of their local culture [1]. Inheritance media that is less acceptable to future generations is an obstacle that must be overcome.

One of Indonesia's cultural wealth is having a variety of languages. Language and culture are two sides of a coin that cannot be separated because language is a cultural phenomenon. Language is said to be the spirit of culture because, with language, it can know and learn about the existing culture. Indonesia has a motto, *Bhinneka Tunggal Ika*. It means Indonesia has cultural diversity and many

different things, but they are still one and have the same way of life. Geographical differences create cultural, religious, and cultural differences [2]. The use of language must be analyzed in terms of how a particular community uses the language and how it reflects the socio-cultural aspects of the community under study [3].

The world believes Indonesia has good potential with its natural, social, and cultural resources. This country has so much to offer the world. One of the traditions inherent in the Dayak people and known on the island of Borneo is the Gawai Dayak tradition. Traditions in Kalimantan need to be revitalized to ensure that the ceremony remains a tradition in the modern era as a legacy in Sarawak and Kalimantan [4]. Kalimantan is an island with a rich diversity of flora, fauna, culture, and natural environments. The existing oral traditions relate to the local environment [5]. The geographical location of West Kalimantan is very strategic because it is on the same mainland as Kalimantan, directly adjacent to Sabah, Malaysia, and Sarawak, directly adjacent to Indonesia. There is a cross border between Malaysia and Indonesia on the Entikong border, and culture becomes global, with no

barriers. As the world becomes more global, intercultural relations have become a common and vital mix in almost all fields [6]. The Dayak tribe has strong customs. There are 405 ethnic Dayak tribes in Kalimantan.

The Gawai Dayak tradition is carried out by most of the Dayak tribes on the island of Borneo in a great place [7]. The Dayak tribe is known as a tribe that grows rice. Dayak customs and culture come from the word "hulu," meaning upstream, that inhabits remote areas or areas far from cities in Kalimantan. Art attractions are managed by 69 studios with 1,223 artists consisting of Musical Arts, Theater Arts, Literary Arts, Fine Arts, Dayak, and Malay Crafts, both traditional and non-traditional. The Kapuas Hulu region, a buffer zone for the state border, has various traditional ceremonies/rituals. Gawai Dayak is a noble heritage of the diverse culture of the Dayak tribe. This tradition has become a distinctive personality while simultaneously embodying high value for the culture of the people in the Kalimantan area.

In addition to being of high value, local culture and wisdom can be used as ecotourism, which can increase the local community's income [8]. The Gawai Dayak tradition is a local wisdom of the Dayak tribe in Kalimantan. Community local wisdom is the teachings and thoughts that are obeyed, understood, and applied by the community to relate to people and their environment, channeled into the form of local values and norms. The structure of the ceremony. The young people of the Kantu Dayak tribe do not understand the meaning contained in the ceremony. The presence of technological advances makes the younger generation slowly leave the culture of the Dayak tribe, especially the Dayak Kantu. The presence of modern technology in a child will also disappear following the emergence of the millennial generation, and the more advanced technology will result in the erosion and loss of a culture. The youth and children rarely preserve their traditional culture. If a performance in the village uses a single organ, they come in droves, but if there is an oral tradition event, most do not attend. The younger generation now needs to be aware of the benefits and challenges of conserving and managing cultural resources and inheritance [9].

Local traditions are often abandoned by globalization, which provides a new culture. This causes the local culture to be slowly but surely abandoned by the community [10], besides the emergence of the extinction of cultural resources through barriers, and has become the primary concern of all parties today [11]. Problems also arose when the coronavirus pandemic hit Indonesia. Face-to-face learning is reduced, and online learning is urgently needed and requires effective media to support online learning [12], especially learning the culture of Dayak literature for students in Kalimantan.

Based on the description above, this research aims to create an online learning system amid the coronavirus pandemic and learn about Dayak culture and literature, especially Gawai Dayak in West Kalimantan. Therefore, this research addresses the research question of how to learn Dayak literature during a coronavirus pandemic and how Dayak culture and literature, especially Dayak gadgets in West Kalimantan.

#### A. Culture and Literature

Culture is the whole way of human life. The point is that culture refers to all lines of human life. The culture in question includes beliefs, attitudes, ways of thinking, and all concepts

of human life. All these concepts relate to external aspects. The concept of culture can help researchers do their work to be known and researched. A culture will arise due to the behavior of a community in an area that is passed down from generation to generation. Culture is closely related to society. Culture is difficult to define. This is understandable because the cultural dimension is very broad and complex. Literature is a work that can be considered beautiful and aesthetic and has a special meaning. The word "*Sastra*" (literature) comes from Sanskrit, which means "*Sas*", which means directing, teaching, and giving instructions. In comparison, "*tra*" means tools or means. The word literature can be interpreted as a manual, a tool for teaching and teaching that is good and beautiful to distinguish between the language used in literature and scientific language. Literature can also be a valuable ethnographic resource [13]. Scientific language is denotative; there are similarities between the sign and the referenced one. Signs are arbitrary, meaning they are without specific rules. Scientific language is similar to the sign in mathematics—unchanging and symbolic logic. Literary language is full of denotative meanings—meanings that can change. It can refer to objects, nature, and so on.

#### B. Dayak Literature

Literature is a treasure trove that speaks of the character of an area and still influences human perception at a certain period [14], as well as Dayak literature, which is full of a myriad of ideas and understandings of life. Gawai Dayak is a tradition that contains many philosophies and literary works. Gawai Dayak, has a purpose of being grateful for the rice harvest that has been given by God (Jubata). The Gawai Dayak tradition has a manta/prayer. Mantra is a traditional literature born thousands of years ago in human civilization in Kalimantan. Literary works at an early stage can be seen from the stories that develop in society. Literature includes origin stories, witty stories, rhymes, mantras and rhymes, and all the money made by the Dayak tribe to reveal their ways of life. Departing from a tradition, literature cannot be separated from local wisdom literature: The desire to value local and indigenous cultural heritage in the development process also led to the recognition of the often intangible character of this type of heritage [15]. Dayak literature that develops such mantras in the Dayak Gawai tradition, rhymes, puzzles, and others will be the main focus of this research and will become information system-based learning materials. It has become one of the alternative learning platforms that can help Yuniors High School students in Kapuas Hulu, West Kalimantan, develop an understanding of Dayak literature.

#### C. Information System

Here are some definitions of information systems put forward by several experts. The definition of an information system was put forward by Vickery and Vickery [16]. In general, an information system is an organization that has staff, materials, and equipment to support formal implementation. Execution in the amount of one or more means a unified information system, materials, and all equipment related to the official performance of one or more channel functions. Furthermore, system information is needed to facilitate the human [9]. It needs designers and users who are capable of system thinking. This means that concepts for

information systems are needed to facilitate people. It requires design and users of systems thinking. It can be said that an information system is a technology that helps create a system to run more effectively and efficiently, including a learning system during the Corona-19 pandemic [17]. Learning during a pandemic requires an information system to bridge a learning goal in schools.

## II. MATERIALS AND METHOD

Analyzing the mantra/prayer in the Dayak gadget tradition, a qualitative method with an ethnographic approach is replaced. This content process is also related to anthropology. The study of ethnographic anthropology is an expression of identity [18]. The information system process for learning Dayak literature uses predetermined research stages. The process begins with problem identification, research results, identification of system requirements, system development, system implementation, and report generation. Problem identification was carried out by employing initial interviews, constructive documentation, and input from respondents. The data that has been entered goes through the problem identification stage, followed by the research process. After completing the research results, it is followed by identifying system requirements and system development, system implementation, and report generation. The following stages of research are presented in Figure 1.

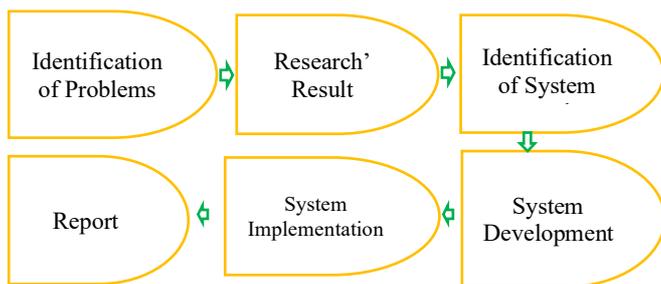


Fig. 1 Step of Research

### A. Identification of the Problem

In the early stages of problem identification, researchers conducted interviews and collected primary and secondary data. Problem identification is carried out in the search for solutions in education and must involve a multidimensional strategy that considers the phenomenon of the problem reported by students, teachers, and circumstances in their lives [19]. Primary research data were collected through interviews and direct recording of documentation. In comparison, the secondary data is collected from data from the statistical bureau and previous research published in international journals. The qualitative descriptive method will explain the process of tradition and culture as well as Dayak literature in Kalimantan.

### B. Research Result

The results of the research are the basis of the material that is presented to students. The material includes Dayak literature. The material is presented in an information system that researchers will develop. The results of the study also focus on old literature that exists in Dayak culture. Culture is closely related to certain places and specific communities

[20]. The old literature that is discussed in the research results is the Mantra Gawai Dayak Kantuk tribe.

### C. Identification of System's Need

The research results that have been obtained are real literary learning materials. Identification of information systems needs to be tailored to teachers and students. In addition, the identification process is adapted to each country, and schools are defined by educational policies, circumstances, and traditions [21]. Information system needs are identified by discussing them with teachers, students, and cultural observers. In addition to discussing, the researcher also heard directly with the respondents during the interview. Meanwhile, learning analysis can be used to process learning. Outcomes data can be used to monitor learning progress and as input for the system, students, and teachers [22].

### D. System's Implementation

System implementation is carried out after the identification of needs and complete research results. In order to be more detailed, it is better to answer the questions: What information is needed by the user? Who, where, when, and how do you get it? Where is the source, and in what form is the information? System implementation requires several stages: defining system goals, developing conceptual models, applying organization constraints, and defining data process activities.

The steps described above are carried out first, after which the information system process can be completed. This step is carried out to meet the user's information needs. In this case, the users of information are students, teachers, and cultural observers. The following is the main menu of the information system, which includes several views as follows:

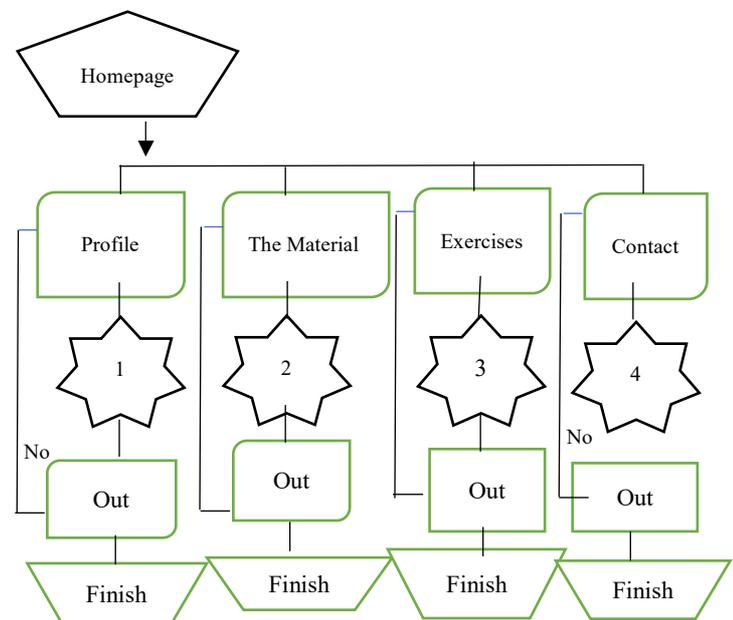


Fig. 2 The main menu of system information

According to Figure 3 above, four pages were created. This page includes a profile, material, exercises, sub, and contact.

### III. RESULTS AND DISCUSSION

The results were collected through qualitative descriptive methods, including interviews, analysis of mantras, documentation, and relevant research studies. The result of this research is the structure of the text in the form of mantra utterances based on the analysis of syntax, rhyme, and rhythm. The context of the Gawai Dayak tradition consists of cultural, situational, social, and ideological contexts. The context of the Gawai Dayak tradition consists of motion, proxemic, paralinguistic, and material contexts. In the syntactic analysis, showing that syntax forms syntactic units, functions, categories, and roles, the text of the mantra in a series of events has the same number, namely four stanzas, the number of words, syllables, and different stanza patterns. The function is a clause analysis based on meaning. Its elements are the functions of subject (S), predicate (P), object (O), complementary (C), and description. Syntax analysis is based on nouns, pronouns, verbs, adjectives, adverbs, numerals, and prepositions. The role of the text is based on the filler element, namely the meaning of the filler element S, the filler element P, the filler element O, and the filler element C.

The findings of rhyme in Gawai Dayak prayers consist of early rhyme, final rhyme, deep rhyme, perfect rhyme, imperfect double rhyme, perfect double rhyme, and imperfect initial rhyme. The highest number is 16 deep rhymes, and the least is 1 perfect double rhyme 1. While initial rhyme is 5, perfect rhyme is 5, imperfect rhyme is 3, imperfect double rhyme is 3, and initial rhyme is not perfect.

While the results of the analysis of the Dayak Gawai prayer consist of sayings that are similar to old poetry, the content of the poem involves the feelings of the poet or the reader [22]. After searching for the contents of the mantra or prayer, the researchers have never found it in written form. Researchers only found prayers/mantras in oral form, indirectly making oral tradition an inseparable part of ancient cultures without written records or writing systems [23]. The function of oral tradition can also impact other fields, such as science. 'Oral tradition: drafts for science concepts provide the foundation for more promising science education [24].

In addition to science, literary learning refers to building national character. Digital equipment and local culture can be appropriately packaged in a digital cultural learning management system to develop the character of a nation [25]. Mantra, considered old poetry and native poetry, offers original poetry and provides several sources of historical and literary criticism and an ethnographic research approach [26]. Mantras are read when the tradition takes place, containing much local natural wisdom. Forests and fields comprise nature's ability to produce and sustain life [27]. Literature learning that is managed well and revitalizes local wisdom and culture using information system learning is expected to produce citizens with an intellectual spirit and good moral integrity, who are not cynical and exclusive, have views of respect, and are wise in their actions [28]. In addition, the priority of learning literature is language knowledge and the development and formation of a multicultural personality, which has become a process of educational competence [29]. Social skills are vital in developing reasoning and critical judgment skills [30]. Besides, cultural and social learning allows students to appreciate and see the values of their worth

and dignity, practice and integrate science with everyday life, and get to know media and technology [30], [31]. In addition, students will have better moral awareness [32]. The following is a picture of the composition or combination of online literature learning that requires the use of tools, activities, and learning resources as an inseparable unit, the combination of these three things being a reference for the online learning process of Dayak literature and culture:

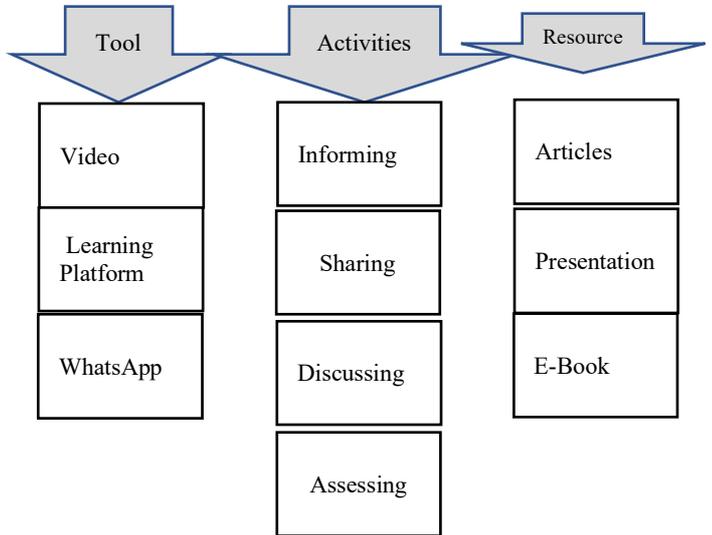


Fig. 3 Online Learning

Figure 3 shows that learning involves tools, activities, and resources that anyone can access, indicating that the distribution of e-learning and the effectiveness of students' e-learning can be improved accordingly [33]. Online learning is an active learning stage; all knowledge students have mastered is based on problem solving and thinking critically [34], [35]. Furthermore, the E-learning information system results are displayed on the start page of the information system. Learning and materials can be accessed at <https://sastradayak.com/>

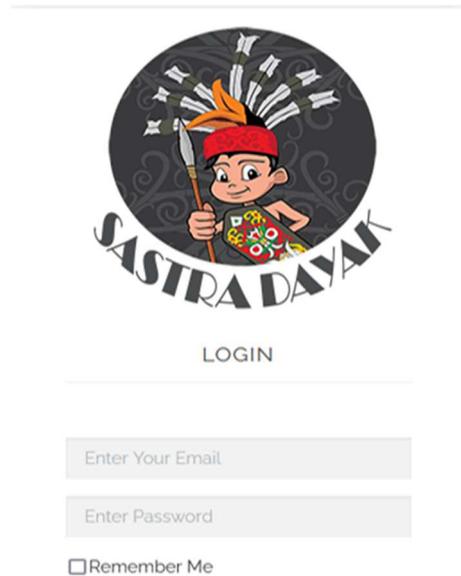


Fig. 4 Login

After the initial page appears, users, including teachers and students, are asked to create their respective accounts. Furthermore, on the admin home page, researchers can delete, add, or change the contents of the entire information system that users can see. Researchers, as admins, can delete the content or appearance contained in the contents of the information system if there are errors or changes to the contents. Next, researchers can add new books and research so that this information system provides more knowledge to users, and researchers can replace the contents of the information system with new ones if there are revisions in books or research.

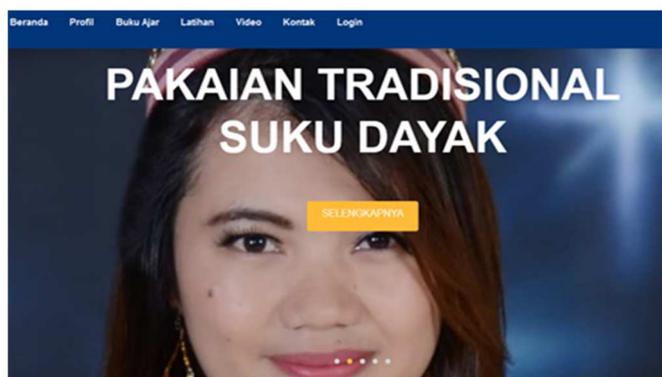


Fig. 5 Traditional' s dress of Dayak Kantu'

With the admin homepage, researchers can manage all the contents of the information system based on updates, revisions, and user comments. The admin homepage that has been designed can be seen in Figure 6 below.

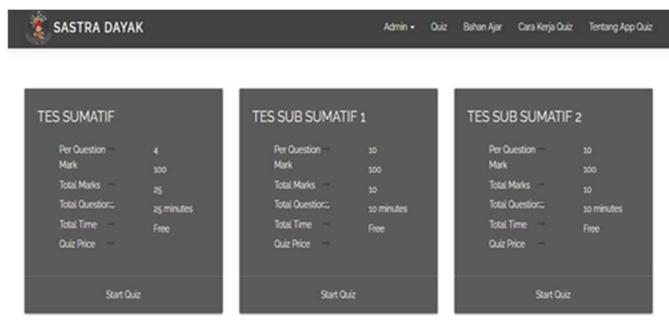


Fig. 6 Quiz

Then, there is the profile column, which will explain the theme of the information system. After that, there is a column of teaching materials, exercises, and contacts containing comments aimed at the results of the research that has been made.



Fig. 7 Comment Page

The comments page is to provide input and revisions as needed. Revisions that can be made include materials, questions, or other things that are in nature to improve literary learning or to make it better.

#### IV. CONCLUSION

The study results indicate that many traditions, cultures, and regional literature have not been touched by researchers and cultural observers locally and nationally. So that it can have implications for the development of further literary research, learning that uses information systems is also still wide open to be developed with other more complete applications and under the demands of the times. The Dayak community, who live alongside nature, makes culture a binding function. The binding can be in the form of an educational pattern [36]. Gawai Dayak culture is reflected in the value of divinity that upholds the Creator. This can be seen from the meaning of the Gawai Dayak Mantra, the point of which is to express gratitude for the rice harvest given by God (Jubata). The results of the Dayak Kantu' spells include syntactic, rhyming, and rhythmic analysis. The context of the Gawai Dayak tradition consists of cultural, situational, social, and ideological contexts. The context of the Gawai Dayak tradition consists of motion, proxemic, paralinguistic, and material contexts. In addition, literary learning, constrained by the coronavirus pandemic, must not stop.

Literature learning can be done online [37]. The design of information systems about Dayak literature can help realize the teaching and learning process in a directed, effective, and consistent manner. The teacher and student can access course content without time constraints and geographic barriers [33], [38]. This system can relieve teachers and students when teaching and learning occur through material containing old literature (*Mantra Gawai Dayak*). Students and teachers can discuss in cyberspace and evaluate themselves without the teacher's help. They will understand cultural differences, using cultural understanding as the basis for ethnic differences [36]. With the habit of learning Dayak literature online, teachers can practice their digital competence [22], [34]

The coronavirus response period will not return to normal as it used to be, but the stakeholders must take a step by considering how to make educational learning more prepared and in new formats in student learning outcomes [35]. This research implies that advances in education and technology can open up the opportunity for an advanced, effective learning environment. In addition, learning through system information allows one to see online learning developing in the community during the pandemic [36]. The results of the process of each teaching material can be used as the basis for the assessment of learning Dayak literature in Kapuas Hulu, West Kalimantan.

#### ACKNOWLEDGMENT

We thank Mr. Irvai at Lubuk Linggau Celebes. He helped to improve our article. We thank Mr. Izar Widiyaprakasa and Mr. Adhis Darussalam Pamungkas for revising and giving many suggestions.

## REFERENCES

- [1] Storey, J, *Cultural Theory and Popular Culture: An Introduction*, 9<sup>th</sup> Edition. London: Routledge, 2020, doi:10.4324/9781003011729
- [2] Rowe, M. L., & Weisleder, A. "Language development in context," *Annual Review of Developmental Psychology*, vol. 3, pp. 201-223, 2020, doi: 10.1146/annurev-devpsych-042220-121816
- [3] K. Anwar, "Ecological Wisdom of Oral Tradition: Surface and Deep Structure Tension in Preserving the Lake Environment," in *IOP Conference Series: Earth and Environmental Science*, Apr. 2020, vol. 469, no. 1, p. 012021, doi: 10.1088/1755-1315/469/1/012021.
- [4] A. A. A. Pawi and C. Ungang, "The Bidayuh People of Sarawak Borneo: Ritual and Ceremonies," *Rupkatha J. Interdiscip. Stud. Humanit.*, vol. 13, no. 2, Jun. 2021, doi: 10.21659/rupkatha.v13n2.26.
- [5] D. Suri and D. Chandra, "Teacher's Strategy for Implementing Multiculturalism Education Based on Local Cultural Values and Character Building for Early Childhood Education," *J. Ethn. Cult. Stud.*, vol. 8, no. 4, pp. 271–285, Oct. 2021, doi: 10.29333/ejecs/937.
- [6] Koch, J., & Takashima, R. Exploring students' intercultural sensitivity in the EFL classroom. *International Journal of TESOL Studies*, 3(1), 88-100, 2021, doi: 10.46451/ijts.2021.01.07
- [7] S. Suebsantiwongse, "Ritual Sovereignty in Siam: Royal Sacraments and Brahmanical Liturgies in Ayutthaya and Rattanakosin," *Humanit. Arts Soc. Sci. Stud.*, vol. 20, no. 2, pp. 604–624, 2020, doi:10.14456/hass.2020.23.
- [8] Ardilaftiza, K. Warman, B. K. Illahi, and H. Tegnan, "Ancient Sites, History and Local Wisdom: Tourism Boosting Reforms to Improve the Economy and Living Standard in the Province of Bengkulu, Indonesia," *Anc. Asia*, vol. 12, p. 15, Sep. 2021, doi: 10.5334/aa.235.
- [9] T. Lipai, "Linguistic and cultural parameters of the professional and industry dynamics of a modern specialist," *Plur. Hist. Cult. Soc.*, vol. 9, no. 1, pp. 130–139, Jul. 2021, doi: 10.37710/plural.v9i1S\_9.
- [10] G. Wirawan, H. J. Waluyo, S. Suwandi, and S. T. Widodo, "Surviving the Onslaught of Globalization: The Last Drops of Sweat of the Traditional Theater of Mendu, West Kalimantan," *Rupkatha J. Interdiscip. Stud. Humanit.*, vol. 12, no. 1, Mar. 2020, doi:10.21659/rupkatha.v12n1.31.
- [11] A. Basu and A. De, "Heritage Valuation Driving Sustainability of Cultural Capital in Bishnupur in Eastern India," *Plur. Hist. Cult. Soc.*, vol. 9, no. 1, pp. 103–115, Jul. 2021, doi: 10.37710/plural.v9i1S\_7.
- [12] B. P. Prasetyo, Wibowo Heru Naidu, Noor Banu Mahadir Tan and B. Sumardjoko, "Digital Citizenship Trend in Educational Sphere: A Systematic Review," *Int. J. Eval. Res. Educ.*, vol. 10, no. 4, pp. 1192–1201, 2021.
- [13] A. Klitzing, "'Gilded Gravel in the Bowl': Ireland's Cuisine and Culinary Heritage in the Poetry of Seamus Heaney," *Folk Life*, vol. 59, no. 2, pp. 101–122, Jul. 2021, doi: 10.1080/04308778.2021.1957423.
- [14] L. L. Garcia, L. R. Roldan, A. F. G. Jaring, C. O. Porgatorio, and J. D. Perez, "Revitalizing the Existent but Forgotten Bataan Literary Legacy," *Humanit. Arts Soc. Sci. Stud.*, vol. 20, no. 1, pp. 1–26, 2020, doi: 10.14456/hass.2020.1.
- [15] N. Niko, "Gender Struggle: What Can We Learn from the Dayak Benawan Women?," *Asia Social Issues*, vol. 13, no. 2, pp. 269–292, Dec. 2020.
- [16] A. Vickery and B. C. Vickery, *Information Science in Theory and Practice*. Walter de Gruyter – K. G. Saur, 2004.
- [17] C. Muangmee, S. Kot, N. Meekaewkunchorn, N. Kassakorn, S. Tiranawatananun, and B. Khalid, "Students' use Behavior towards E-learning Tools during COVID-19 Pandemics: Case Study of Higher Educational Institutions of Thailand," *Int. J. Eval. Res. Educ.*, vol. 10, no. 4, p. 1166, Dec. 2021, doi: 10.11591/ijere.v10i4.21821.
- [18] D. Lempert, "A Question of Tone," *PORTAL J. Multidiscip. Int. Stud.*, vol. 18, no. 1–2, Mar. 2022, doi: 10.5130/pjmis.v18i1-2.7539.
- [19] F. A. de M. Comelli, M. Da Costa, and E. Dos Santos Tavares, "'I Don't Know if I Can Handle It All': Students' Affect During Remote Education in the COVID-19 Pandemic in Brazil," *Int. Rev. Res. Open Distrib. Learn.*, vol. 22, no. 4, pp. 53–71, Nov. 2021, doi:10.19173/irrodl.v23i1.5869.
- [20] A. Zbucheá, "World Heritage Sites, Local Communities and Tourists," *Plur. Hist. Cult. Soc.*, vol. 8, no. 2, pp. 77–90, 2020, [Online]. Available: <https://www.ceeol.com/search/article-detail?id=923000>.
- [21] M. K. Buckland, "Institutional Contexts of Education for Information," *Educ. Inf.*, vol. 35, no. 4, pp. 453–454, Dec. 2019, doi:10.3233/EFI-190274.
- [22] V. Basilotta-Gómez-Pablos, M. Matarranz, L.-A. Casado-Aranda, and A. Otto, "Teachers' Digital Competencies in Higher Education: a Systematic Literature Review," *Int. J. Educ. Technol. High. Educ.*, vol. 19, no. 1, p. 8, Dec. 2022, doi: 10.1186/s41239-021-00312-8.
- [23] C. Okoye and S. Okoye-Ugwu, "From Minstrelsy to the Spoken Word Poet: Oral Tradition and Postcolonial Nigeria," *Cogent Arts Humanit.*, vol. 8, no. 1, Jan. 2021, doi: 10.1080/23311983.2021.1933306.
- [24] S. R. Stapleton, "Oral Traditions, Changing Rural Landscapes, and Science Education," *Cult. Stud. Sci. Educ.*, vol. 12, no. 1, pp. 189–198, Mar. 2017, doi: 10.1007/s11422-016-9749-1.
- [25] E. Budiman, M. Wati, and Norhidayat, "The 5R adaptation framework for cultural heritage management information system of the Dayak tribe Borneo," *J. Phys. Conf. Ser.*, vol. 1341, no. 4, p. 042016, Oct. 2019, doi: 10.1088/1742-6596/1341/4/042016.
- [26] S. Subba and N. Chaturvedi, "Yemapoetics: Towards a Theory of Healing in Indigenous Poetry from Sikkim," *Rupkatha J.*, vol. 14, no. 2, pp. 1–11, 2022, [Online]. Available: <https://rupkatha.com/v14n2ne07/>.
- [27] P. Chaterji, "Understanding Women-Nature Dynamics: Eco-consciousness as a Quest for Identity in Selected Texts from Assam," *Rupkatha J. Interdiscip. Stud. Humanit.*, vol. 12, no. 5, Oct. 2020, doi:10.21659/rupkatha.v12n5.rioc1s15n1.
- [28] C. Sada, Y. Alas, and M. Anshari, "Indigenous people of Borneo (Dayak): Development, social cultural perspective and its challenges," *Cogent Arts Humanit.*, vol. 6, no. 1, Jan. 2019, doi:10.1080/23311983.2019.1665936.
- [29] S. Fleck and M. Hachet, "Making Tangible the Intangible: Hybridization of the Real and the Virtual to Enhance Learning of Abstract Phenomena," *Front. ICT*, vol. 3, p. 30, Dec. 2016, doi:10.3389/fict.2016.00030.
- [30] P. Pandeeka, "Instructional Models of Social Studies Teachers to Development of Critical Thinking Skills for Living in the 21st century," *Manekul, Jarunee*, vol. 19, no. 2, pp. 314–339, 2019.
- [31] Y. Wang, "Translingual, Transcultural, and Transboundary Sceneries: Aesthetic Ideas and Discursive Practice in Yu Dafu's Landscape Writing," *Rupkatha J. Interdiscip. Stud. Humanit.*, vol. 14, no. 1, 2022.
- [32] N. D. David, "School of Living Traditions on Aeta Magbukon indigenous knowledge: promoting indigenous food plants for food security," *Humanit. Arts Soc. Sci. Stud.*, vol. 21, no. 3, pp. 518–534, 2021.
- [33] W. He, L. Zhao, and Y.-S. Su, "Effects of Online Self-Regulated Learning on Learning Ineffectiveness in the Context of COVID-19," *Int. Rev. Res. Open Distrib. Learn.*, vol. 23, no. 2, pp. 25–43, May 2022, doi: 10.19173/irrodl.v23i2.5775.
- [34] F. Munir, A. Anwar, and D. M. H. Kee, "The Online Learning and Students' Fear of COVID-19: Study in Malaysia and Pakistan," *Int. Rev. Res. Open Distrib. Learn.*, vol. 22, no. 4, pp. 1–21, Nov. 2021, doi: 10.19173/irrodl.v22i4.5637.
- [35] I. M. S. Paramarta, K. Artawa, M. S. Satyawati, K. W. Purnawati, P. E. D. Suputra, and P. A. P. Sudana, "Language Contestation on The Virtual Linguistic Landscape of The Government Website of Bali, Indonesia," *Rupkatha J. Interdiscip. Stud. Humanit.*, vol. 14, no. 3, Oct. 2022, doi: 10.21659/rupkatha.v14n3.19.
- [36] S. Widiyarto, D. Sunendar, S. Sumiyadi, and I. Wassid, "Fungsi Upacara Gawai Dayak dalam Pembelajaran Bahasa Daerah dan Sastra," *J. Ilm. Wahana Pendidik.*, vol. 6, no. 3, pp. 185–189, 2020, doi: 10.5281/zenodo.3950926.
- [37] M. K. Islam, M. F. H. Sarker, and M. S. Islam, "Promoting Student-Centred Blended Learning in Higher Education: a Model," *E-Learning Digit. Media*, vol. 19, no. 1, pp. 36–54, Jan. 2022, doi:10.1177/20427530211027721.
- [38] S. Ramalingam, M. Y. Melor, and H. Hashim, "Exploring ESL Learners' Blended Learning Experiences and Its Effectiveness through Web-Based Technologies," *Int. J. Eval. Res. Educ.*, vol. 10, no. 4, pp. 1436–1445, 2021.
- [39] S. K. S. Cheung, L. F. Kwok, K. Phusavat, and H. H. Yang, "Shaping the future learning environments with smart elements: challenges and opportunities," *Int. J. Educ. Technol. High. Educ.*, vol. 18, no. 1, p. 16, Dec. 2021, doi: 10.1186/s41239-021-00254-1.
- [40] J. Zimmet, "Redesigning (virtual) Learning With a 'Love Ethic' in the Wake of COVID-19," *Educ. Inf.*, vol. 36, no. 2, pp. 207–209, Jul. 2020, doi: 10.3233/EFI-200004.
- [41] N. Thongaram, J. Luangubol, and S. Glangkarn, "The Exploratory Factor Analysis: The Multicultural Social Competence of The Community College Students in The Three Southern Border Provinces of Thailand," *J. Southwest Jiaotong Univ.*, vol. 57, no. 3, pp. 28–38, 2022, doi: 10.35741/issn.0258-2724.57.3.3.