

Documenting and Designing Digital Folklore Comics on ‘Indigenous Fruits in Sarawak’: An Ethnobotanical-Linguistic Approach

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ABSTRACT

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Apart from being a source of food in local community, most species of the indigenous fruits in Sarawak are seasonal which make them unique, symbolic and closely connected to the life of the locals. Socio-culturally, they play a central role in maintaining the identity of Sarawak. However, due to sociocultural hybridization, the indigenous knowledge base related to these indigenous fruits, including their associated folklores, has become increasingly endangered. In line with this, the present study aims to design digital comics depicting folklores related to indigenous fruits in Sarawak. Adopting an ethnolinguistic fieldwork approach, the documentation of folk genres from the narrators or informants was done in the central region of Sarawak, where most of the indigenous fruits are grown. To this end, conversational qualitative interview and photography method were employed, focusing on stories or folkloric knowledge related to the indigenous fruits, such as their use and traditional beliefs, myths, tales, and practices of people. This was followed by designing the digital folklore comics. In total, eight folklores were collected. This study makes attempts to help preserve the local heritage and culture associated with the indigenous fruits, while promoting local wisdom via the depiction of historical and cultural values embodied in the folklores.

Keywords: Digital comic, folklores, indigenous fruits, ethnobotany, Sarawak.

INTRODUCTION

Due to sociocultural hybridization because of modernization, the indigenous knowledge base about Sarawak wild edible fruits (or indigenous fruits) which the local communities have preserved and passed down over time is now at risk of disappearing (Hisa et al., 2017; Panda et al., 2022). This has caused the invaluable knowledge related to these exotic fruits being forgotten. This situation, thus, calls for an urgent need to devise strategy such as doing an ethnobotanical linguistic documentation, as part of the effort to revive, conserve and/or preserve folklores that are related to indigenous fruits in Sarawak. This process of documentation is done not predominantly in print media but also in digital formats. In addition, to introduce folklores to the public, an interesting medium is highly needed, such as digital comics (Wardani, 2019). As the drawing of pictures in comics is in a deliberate sequence, the functional contents derived from images and words can help to convey messages, promote local wisdom, and create an aesthetic value in their appearance.

While many ethnologists have examined how plants are used in festivals, folk traditions, and domestic economies, such research has predominantly focused on specific regions like Albania, Bosnia-Herzegovina, Bulgaria, Greece, Turkey, Kosovo, and Macedonia (Maxhe & Damo, 2013). Therefore, ethnobotanical studies in Southeast Asia particularly in Sarawak, an eastern Malaysian region occupying the south-western part of Borneo, is significant as there exists numerous species of unique tropical seasonal fruits which are indigenous to but are lesser known outside the Sarawak region. The pressing need for study in this area can be seen as a crucial step for local rural development based on eco- and edu-tourism, heritage preservation and community-based bio-conservation strategies (Pardo de Santayana et al., 2010; Mustafa et al. 2012; Pieroni et al., 2013).

OBJECTIVES

The objectives of this study are two-folds: (i) to document culturally rich folklores which are related to exotic fruits in Sarawak, and (ii) to design digital comics depicting the folklores.

LITERATURE REVIEW

Sarawak, which is a part of Borneo, has a vast tropical rainforest which contributes to the unique and bizarre plant diversity of Borneo. Some wild plants, especially the fruits grown here are indigenous or 'rare' (Kasron et al., 2020) with many related species still growing wild in the natural forests (Kueh, 2003). These fruits have also long been a source of food in local community diets (Sahrir et al., 2013). Most species of the indigenous fruits are seasonal which make them unique, symbolic and closely connected to the life of the locals. Exotic fruits such as Dabai (*Canarium Odontophyllum*), Engkala (*Litsea Garciae*), Keranji (*Dialum Indum*), Pulasan (*Nephelium Mutabile Blume*), Salak (*Salacca Zalacca*) and Terap (*Artocarpus Odoratissimus*) are of high socio-cultural and economic values for the Sarawakians in general and for the ethnic groups in particular. Socio-culturally, these indigenous or exotic fruits play a central role in maintaining the identity of Sarawak as they are also used in a variety of important rituals, besides for consumption.

The study is grounded in ethnobotany, a subfield of ethnobiology, and the concept of folklore. Ethnobotany is the study of the relationships that exist between people and plants. This includes the diversity of human views and relationships with plants in different cultures, both past and present. Ethnobotany goes beyond merely examining how humans use plants (Saraçi & Damo, 2013); it explores the cultural significance of plants within specific societies and considers how people relate to their natural environments (Tasić, 2012). Consequently, the discipline intersects with ethnographic, linguistic, and anthropological studies, particularly in regions where native plant species are found. Knowledge of this regard is vital in the sense that it helps to preserve the local heritage and culture associated with the 'native' plants following the emic perspectives of the indigenous people.

Indigenous knowledge, in the context of ethnobotany, deals with the ways in which societies in a particular geographical area and cultures have come to perceive, know, use, and classify the symbolic plants such as indigenous fruits in Sarawak. Moreover, the consumption and application of wild fruits for food, medicinal purposes, and other uses are closely connected to the spiritual, cultural, health-related, and socio-demographic aspects of life within a particular community (Shan et al., 2019). In this sense, ethnobotany collects indigenous knowledge using various research approach and methodology to understand and document human-plant relations in a scientific way and followed by producing documentary output in various forms. To note, one of the key elements in the documentation is to find out the coinage of the plant names, and the associated stories such as folklores. Since local plant names are often deeply intertwined with the native language of the community (Çakılcıoğlu et al., 2010), the documentation process is grounded in the folkloric knowledge associated with these indigenous fruits.

Folklore is the collection of "traditional beliefs, customs, myths, legends, and stories of a community, passed through the generations by word of mouth" (Michalopoulos & Xue, 2019, p. 1). The knowledge in folklores presents the experience and heritage of individuals, community, or society as the result of interacting with some elements in their environment, including plants. When this knowledge is combined, it forms a kind of symbols, expressions or voices which can represent the identity of the community. Folklores are not only being told or read for fun but are also for the search of an identity which can help clarify one's cultural values (Jamilah, 1991). This implies that elements in folklores are social products, mirroring both the local culture and people. From the perspective of education, folklore, which functions as a communicative approach to language teaching, is also useful for learners to develop cultural awareness. For instance, folklore comics, if used as the learning medium, they would present the values of local wisdom and ensure that learners learn about such wisdom via the depiction historical and cultural values (Wardani, 2019). It is a tool to help learners to recognise the close relationship between the target language and their culture (Lwin, 2015). Thus, both the heritage and pedagogical values embodied in folklore and its' role in maintaining the stability of local culture clearly points to the importance of documenting more folklore derived from 'native' elements such as exotic fruits in Sarawak.

METHODS

Research Design

This study employed field study or to be specific ethnolinguistic fieldwork as the primary approach to collect and document folklores related to indigenous fruits in Sarawak. This was followed by folklore analysis and digital comics development.

Participants and Contexts

Informed consent was secured from each willing informant or narrator before the interviews were conducted. The narrators were identified via snowball sampling technique. The targeted research sites were villages located in the central region of Sarawak, where most of the indigenous fruits are grown naturally.

Data Collection Methods

To record the folk genres that are related with indigenous fruits in Sarawak from the narrators, conversational qualitative interview was employed to collect the data. The target of the interviews was mainly on any stories or folkloric knowledge related to the indigenous fruits, including their use and traditional beliefs, myths, tales, and practices of people. For documentation purpose, audio and/or video recordings were also be done along with the interview.

Besides, this study also employed photography method to capture important scenes at the site. The study utilized photographs for three main purposes: to visually support the research findings, to enhance the researchers' understanding of the study context, and to encourage dialogue and prompt discussion (Banks, 2001).

From a methodological perspective, employing photography and video to capture aspects of social and cultural life is generally considered a direct and effective approach (Banks, 1995) and provide insight into the intangible notion of community without depending solely on participants' verbal explanations of its meaning (Herzog, 2019). These data collection methods are deemed necessary as what emerges from an ethnobotanical linguistic documentation will not be just labels for the fruit species, but also the entire taxonomies of indigenous knowledge about the fruits and the ecosystem where they co-exist.

Digital Comic Design Process

The process involved in developing the digital folklore comic is illustrated in Figure 1 below.

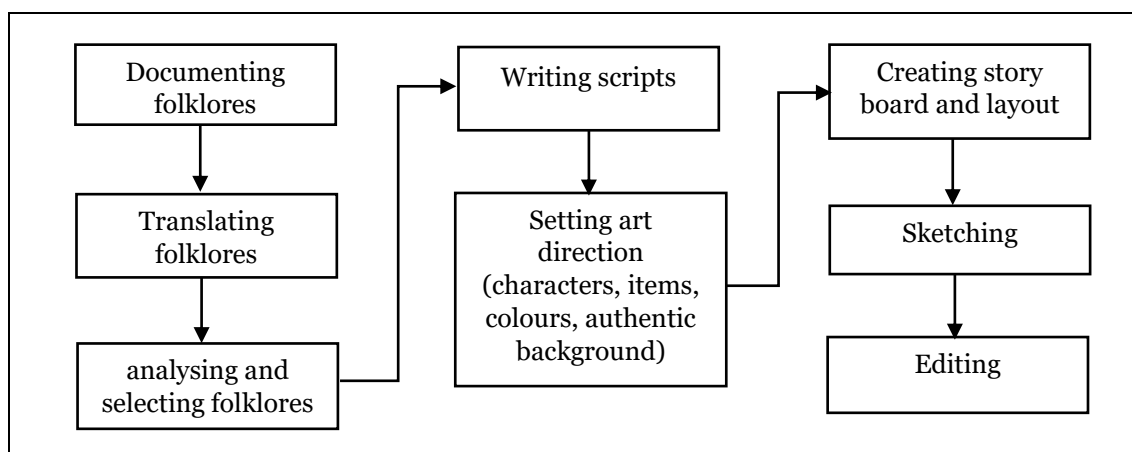


Figure 1. Eight Phases of Designing Digital Comic

RESULTS

Folklores Documentation

Table 1 shows the list of indigenous fruits, and the associated folklores collected during the interviews. In total seven folklores were documented. To understand how these fruits are associated with the local people's life, the informants also shared some of the uses of these fruits during the interviews. Furthermore, pictures of a few types of seasonal

indigenous fruits and their native plants were also captured from the forest and villages nearby the research sites. This information is vital in setting art direction for the digital comic.

Table 1. Indigenous Fruits in Sarawak and Associated Folklores

Local names	Botanical name	Uses	Folklores
Kepayang, keluak	<i>Pangium edule</i>	medicinal use, preserve meat, consumption	Kepayang and Rat Poison
Langgir	<i>Xanthophyllum amoenum</i>	to make shampoo or soap, consumption	The Greedy Tabong
Engkala, engkala, kangkala, panglaban, buah taang, kara'k, tebulus, tebuluh	<i>Litsea Garciae</i>	medicinal use, consumption	The Engkalak Thief
Dabai, babe	<i>Canarium Odontophyllum</i>	consumption	The Saviour Piak and His Dabai Fruits, The Origin of Dabai Tree
Embang, bambangan, asam embang, mawang	<i>Mangifera Pajang</i>	medicinal use, consumption	Lahok's Misfortune Under the Embang Tree
Kembayau, keramu, kramoh, buah roh, buah kumayu	<i>Cacryodes rostrata forma cuspidate</i>	local cuisine, to make handicrafts, consumption	The Spirit of the Forest and the Kembayau Dispute
Salak	<i>Salacca zalacca</i>	medicinal use, consumption	The Curse of Salak tree

Folklore Development

Figures 2 to 3 are screenshots of two sample scenes from the digital comic “The Spirit of the Forest and the Kembayau Dispute”.



Figure 2. A sketch depicting a conflict between Jawur and Saloi as they disagreed on how to divide the fruits.



Figure 3. A sketch of a scene where a forest spirit appeared in the form of a large bird with shimmering wings.

CONCLUSION

This study explored the documentation and design of digital comics depicting indigenous fruit-related folklore in Sarawak through an ethnobotanical-linguistic lens. Through fieldwork involving interviews, photography, and participatory observation in selected Sarawak villages, seven folklores were collected and translated into digital comic narratives. These stories not only provide insights into the symbolic and practical uses of indigenous fruits like Dabai, Engkala, and Kembayau but also serve as a repository of cultural identity, values, and beliefs. This implies that the stories collected reflect more than just the uses of plants. In fact, they embody moral lessons and social norms that are integral to the Sarawak's indigenous communities. For instance, stories such as *The Spirit of the Forest and the Kembayau Dispute* capture environmental ethics and conflict resolution embedded within traditional belief systems. Additionally, the comics also potentially offer a compelling platform to convey heritage knowledge to wider audiences who may be less exposed to traditional folklore. Importantly, this approach can contribute to sustaining intangible cultural heritage in the digital age, where oral traditions are at risk of being forgotten due to sociocultural hybridization and rapid modernization. In conclusion, this research project contributes to the discourse on cultural sustainability by documenting and transforming indigenous fruit-related folklore into digital comics. Future research may explore the reception of these comics among various age groups and their potential integration into formal and informal educational settings to foster cultural awareness and language learning.

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