UNIVERSITI TEKNOLOGI MARA

CREATA 2026

INTERNATIONAL CONFERENCE on CREATIVE PRACTICES in FILM, THEATRE and ANIMATION

Theme

Innovation, Culture, and Collaboration in the CREATIVE ARTS

PROCEEDINGS

3rd & 4th FEBRUARY 2026

HYBRID | Online & Physical

UNIVERSITI TEKNOLOGI MARA | Fakulti Filem, Teater dan Animasi

UNIVERSITI TEKNOLOGI MARA | Institut Seni Kreatif Nusantara

The Ant Story / Kisah Semut, the Bilingual Children's Story Book

***Nurul Aida Kamal Ikhsan**

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, 43800 Dengkil, Selangor, Malaysia & nurulaida@uitm.edu.my

Corresponding Author

ABSTRACT

Children's literature is a powerful tool for introducing science while nurturing cultural identity. The development of a bilingual (English & Bahasa Malaysia) children's picture book titled "The Ant Story / Kisah Semut". The story blends Malaysian peribahasa featuring ants, "Ada gula, ada semut"; "Mati semut kerana gula"; "Bagaikan semut berkerumun"; and "Rajin seperti semut" with the biological realities of ant caste systems and ethnoentomological perspectives. By merging scientific explanations, narrative storytelling, and cultural symbolism, the book aims to enhance early STEM learning, foster pride in linguistic heritage, and inspire ecological awareness among young readers. This study outlines the conceptual framework, theoretical foundations, methodology, story architecture, and its contributions to cultural diplomacy, STEM education, and creative practices in Southeast Asian children's media.

Keywords: *Ethnoentomology; Children's Literature; Creativity; Caste Systems; Bilingual Storybook; Malay Proverbs*

INTRODUCTION

Children's books shape how young readers understand their world. Beyond entertainment, picture books serve as tools of cultural preservation, scientific learning, and identity formation. In Malaysia, ants feature prominently in both ecology and cultural metaphors. Their behaviour inspires rich "peribahasa" that encode wisdom related to diligence, unity, temptation, and moral caution.

Ants (Formicidae) are ideal organisms for science education due to their well-documented eusocial behaviour**,** structured caste systems**,** and complex chemical communication (Hölldobler & Wilson, 1990). At the same time, ants are symbolically rich within Malay culture and appear in several well-known *peribahasa* associated with hard work, unity, attraction to sweetness, and moral caution (Asmah, 2015). At the same time, ants are scientifically fascinating organisms. Their eusocial systems exhibit structured castes such as queens, workers, and soldiers. Each with distinct roles that mirror human lessons in cooperation, responsibility, and leadership. Ants communicate chemically, build architectural nests, and coordinate collective tasks with remarkable precision.

Ethnoentomology provides a lens for understanding how insects influence culture, spirituality, and traditional knowledge. In Malaysia, rural and Indigenous communities use ant trails to locate fruiting trees and employ weaver-ant larvae as fishing bait. Malay proverbs referencing ants reflect centuries of observation and ecological familiarity.

This project positions ants as cultural and scientific ambassadors. The bilingual children's storybook aligns scientific learning with cultural heritage preservation, making the text both an educational resource and enjoyable material.

The conceptual framework integrates three core domains:

1. **Biological Science**

Ant colonies operate through eusociality, the division of labour, and cooperative brood care. Queens reproduce; workers forage and nurture larvae; soldiers defend the colony. The caste system provides memorable analogies for roles within society.

2. **Ethnoentomology**

Along with being considered a promising alternative protein source for alleviating food insecurity, insects also contain a series of compounds that can have a positive impact on human health (Costa Neto, 2002). Ethnoentomology explores human–insect relationships in culture, medicine, and symbolism. Malay *peribahasa* reflect ecological observations:

- "Ada gula, ada semut" conveys how opportunities attract crowds.
- "Mati semut kerana gula" warns against unchecked desire.
- "Rajin seperti semut" praises diligence.
- "Bagaikan semut berkerumun" describes collective action.

These sayings are related to moral lessons.

3. **Children's Literature & Bilingual Education**

Picture books with parallel BM - ENGLISH text support bilingual literacy, cultural identity, and intercultural communication. Story-based learning improves science comprehension by grounding abstract concepts in relatable narratives. Integrating these domains yields a scientifically authentic story, culturally grounded, and pedagogically meaningful.

METHODOLOGY

A design-based research (DBR) approach structured the project across four phases:

Phase 1: Literature Review

Academic sources on eusociality, ant behaviour, Malay proverbs, and children's literature structures informed accuracy and content selection.

Phase 2: Story Architecture & Bilingual Scriptwriting

The narrative was designed for 18 illustrated pages, presenting scientific concepts in child-friendly language. English and Malay texts were developed together to maintain nuance and rhythm. Research supports that children learn scientific concepts more effectively when embedded in narrative, multimodal storytelling.

Phase 3: Visual - Textual Integration

Each page includes illustration notes for future development, such as depictions of leaf nests, pheromone trails, ant cooperation, and Malaysian rainforest backgrounds.

STORYBOOK SYNOPSIS & DESIGN

The story follows Rina, a curious child exploring the rainforest with her grandmother. She encounters kerengga (weaver ants) and learns how their world mirrors human values. The narrative includes four key episodes:

1. Hard Work ("Rajin seperti semut")

Rina observes worker ants carrying leaves and food. The story explains worker morphology and the division of labour while reinforcing diligence as a cultural value.

2. Attraction & Opportunity ("Ada gula, ada semut")

When Rina drops candy, ants arrive quickly. The text explains pheromone trails and foraging behaviours. The proverb contextualizes human behaviour and crowd dynamics.

3. Community Cooperation ("Bagaikan semut berkerumun")

A predator appears, triggering soldier ants to defend the colony. The scene illustrates the use of alarm pheromones and the coordination of defense.

4. Temptation & Consequence ("Mati semut kerana gula")

Rina witnesses ants stuck in spilled sweet syrup. The book introduces ecological traps while reinforcing the cultural warning about excessive desire.

The story concludes with Rina reflecting on how science and culture coexist in the tiny yet wise world of ants.

DISCUSSION

The storybook demonstrates how creative storytelling can reinforce science learning through cultural analogies. Ants provide a natural bridge between STEM concepts and Malay cultural wisdom. The bilingual format supports bicultural identity, strengthening proficiency and appreciation of Bahasa Malaysia and English.

Story-based STEM learning has been shown to increase engagement and information retention among young readers. By embedding biological facts within relatable moral lessons, the text supports both cognitive development and character formation.

Creatively, the project contributes to Malaysian children's literature by elevating insects, often overlooked in mainstream storytelling, as protagonists with ecological and cultural importance. Artistically, the book encourages illustration styles inspired by Southeast Asian flora, kampung heritage, and natural textures.

Culturally, integrating *peribahasa* promotes intergenerational knowledge transfer, preserving intangible heritage in a modern educational context.

CONCLUSION

"Ant Story / Kisah Semut" demonstrates how children's literature can unite science, culture, language, and environmental education. Through the lens of ants and Malay proverbs, the book promotes ecological awareness, moral reasoning, and cultural pride. Its bilingual structure expands accessibility, supporting both national identity and global literacy. Future directions include full illustration development and adaptation into digital formats such as interactive e-books or short animations

REFERENCES

Asmah Omar. (2015). Ensiklopedia Bahasa Melayu. Dewan Bahasa dan Pustaka.

Costa-Neto, E. M. (2002). The Use of Insects in Folk Medicine in the State of Bahia, Northeastern Brazil, With Notes on Insects Reported Elsewhere in Brazilian Folk Medicine. Human Ecology 30(2):245-263

Hölldobler, B., & Wilson, E. O. (1990). The Ants. Harvard University Press, S. et al. (2016). Communication in social insects. Cell.