Designing Digital E-book (app) for The Familiarization of Nine Consumptive Plants for Preschool Children through The Story of Sri Pohaci, a Sundanese Goddess of Rice

Author

Citra M. Remi citraremi@gmail.com
Game Design and Digital Media, Bandung Institute of Technology, Indonesia
Riama Maslan Sihombing fleur2ria@yahoo.com
Visual Communication Design, Faculty of Art and Design, Bandung Institute of Technology, Indonesia

ABSTRACT

The myth of *Sundanese* goddess of rice, *Sri Pohaci* is modified to fit the current context, without changing the basic structure of the story. As the story told, *Sri Pohaci* incarnated into nine plants. These plants are modified to nine consumptive plants, to support diversification of food consumption through the story of *Sri Pohaci,* intended for pre-school children. To preserve classic literature, Sri Pohaci tales need to be modified and packaged in a variety of media. The pre-design phase for this research applies qualitative methodology based on action research. The e-book application (app) design utilizes digital storytelling method, combined with touch-screen technology to enable interactive animated features. The concept of storytelling through narration, visual, audio and interactivity can increase the sensation of two-way interaction to encourage children's comprehension and enjoyment of storybook.

Keywords: Sri Pohaci, myth, nine consumptive plants, e-book app

1. INTRODUCTION

 "Finish your rice, dear. Or the rice will cry". That is one of popular phrases among parents to persuade their children to finish their meal. These phrases are derived from local myths in agricultural community. The myth of *Dewi Sri*, Goddess of Paddy is told orally, generation to generation in these communities, spread across several regions in Indonesia. Today, the phrase is becoming obsolete. As a major food source for most of the Indonesia population, especially on the island of Java and Bali, rice has a special status, even sacred. This myth later became culturally rooted and because an inseparable part of everyday life, ethics and ways of living in an agricultural community. *Sundanese* people know *Dewi Sri* as *Sanghyang Sri Pohaci*.

The mythical script of *Sanghyang Sri Pohaci* needs to be modified, so the local knowledge could be sustained. It is told that, *Sri Pohaci* transformed herself into nine types of plants which has major benefit

for the agricultural community. Generally, these types of plants are different according to the script origin. Based on interview with Prof. *Jakob Sumardjo* (2012), a researcher of *Sunda* poem said that these nine plants are local crops. *Soemarjo* interpretation became the basic concept of the familiarization of nine consumptive plants (paddy, cassava, sweet potato, potato, taro, pumpkin, breadfruit, corn, and banana) through the story of *Sri Pohaci*. While Indonesian Government still struggling for self-sufficiency, the rate of rice consumption in Indonesia is the largest in the world. To generate long term impact, the changes of main food consumption by using local food has to be started since early age.

> *Primadi Tabrani (1996:25) emphasize that, contemporary science has come to the conclusion that education and good communication is involving various senses, and this means also a variety of media. (Intan, Priyanto, Alfonzo. 2007:3)*

Along with technological advances and the development of digital media, traditional entertainment has been replaced by the presence of a variety of digital media. Today, children's activities are all closely related to these huge variety of digital products, such as animated films, educational games, etc. It occurs naturally, due to human needs and lifestyle changes. In response to this pattern, the authors assume that the combination of local content and digital media is an alternative way for children to get familiar with this references of the cultural identity of Indonesia.

Conventional story books that contain moral messages to children is irreplaceable. However, a traditional media also has its drawbacks. The use of paper, the industry behind it and its relation to forest sustainability is a major issue, which makes digital media a good alternative reading media. An electronic book can be read via a small computer or so-called e-book. E-book as a learning medium that utilizes audio, text, graphics which makes it possible to be presented in a more sophisticated, interesting and more entertaining form than a conventional book. Also, multimedia can extend and augment learning (Shank, Patti. 2005:12).

Currently, an interactive storybook app based on folklore, such as *Pinocchio, Alice in Wonderland, Grimm's Rapunzel*, etc, circulated through the apps market tablet such as *iTunes*, *Google's play store*, *Kindle store (Amazon)* and *Appworld (Blackberry).*
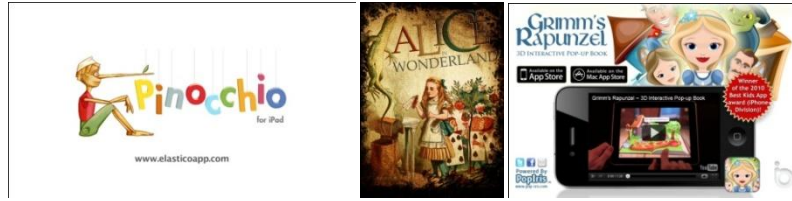
Figure 1. Storybook apps
Source: itunes.apple.com, 2012

This media has a major advantage in terms of distribution. Data exchange can be done easily and can be accessed around the world. This is a great opportunity for children's book authors, illustrators, animators and software designers to collaborate, to explore and transform folklores in the form of e-book apps. The distribution of digital media allows digital products to be consumed globally so it can be appreciated by a wider audience and as a supporting medium to broaden and build character for pre-readers. Conventional books with all the benefits remain an important thing to be introduced to children. But in this digital era, the presence of e-book, especially with a local content or a folk tale that nicely packaged and attractive could be an alternative choice of reading for pre-readers.

In this paper the authors will demonstrate how to design e-book using the myth of *Sri Pohaci*, a *Sundanese* Goddess of Rice as an example, so children's of digital era can learn and appreciate the story of *Sri Pohaci* and local consumptive plants through well-designed apps.
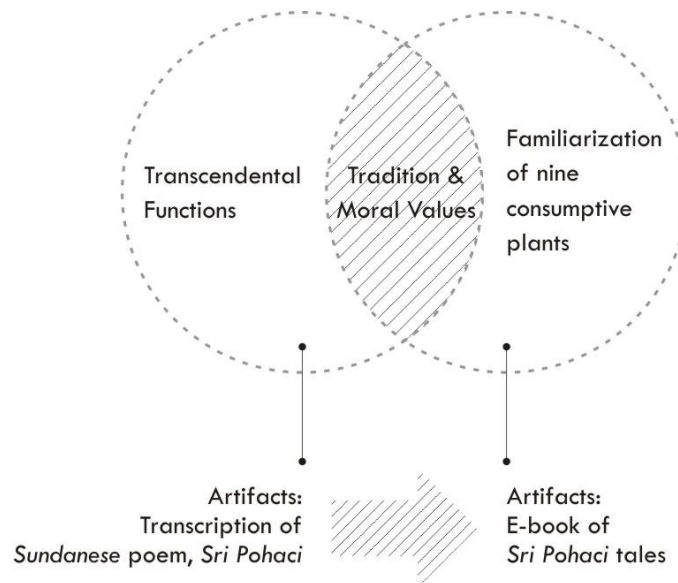
Figure 2. Artifact and objective transformation of s*ri pohaci*
Source: Author, 2013

2. PRE-DESIGN PHASE

Methodology

Pre-design studies using qualitative methods based on action research.

Collecting data obtained from expert interviews, communication with informants, observations and data collection from literatures, documents, and media.

Data analysis methods include a literature review, identifying and qualifying the data into sub-themes, exploring and connecting sub-themes to be summarized in the form of product design decisions.

Data Analysis

1. *Sri Pohaci* tale:

- is a myth of non entity cultural inheritance in oral tradition sphere/ oral folklore

- is an inter-textual product

- is a form of traditional literature to become children classic literature.

- is a form of children literature to be enjoyed in form of alternative media

The meaning of story has been interpreted by Jakob Sumardjo (2003), Ruhliah (2004), Edi S. Ekadjati (2005), Kalsum (2010).

2. The variety of local food consumption is important for a balanced nutrient.
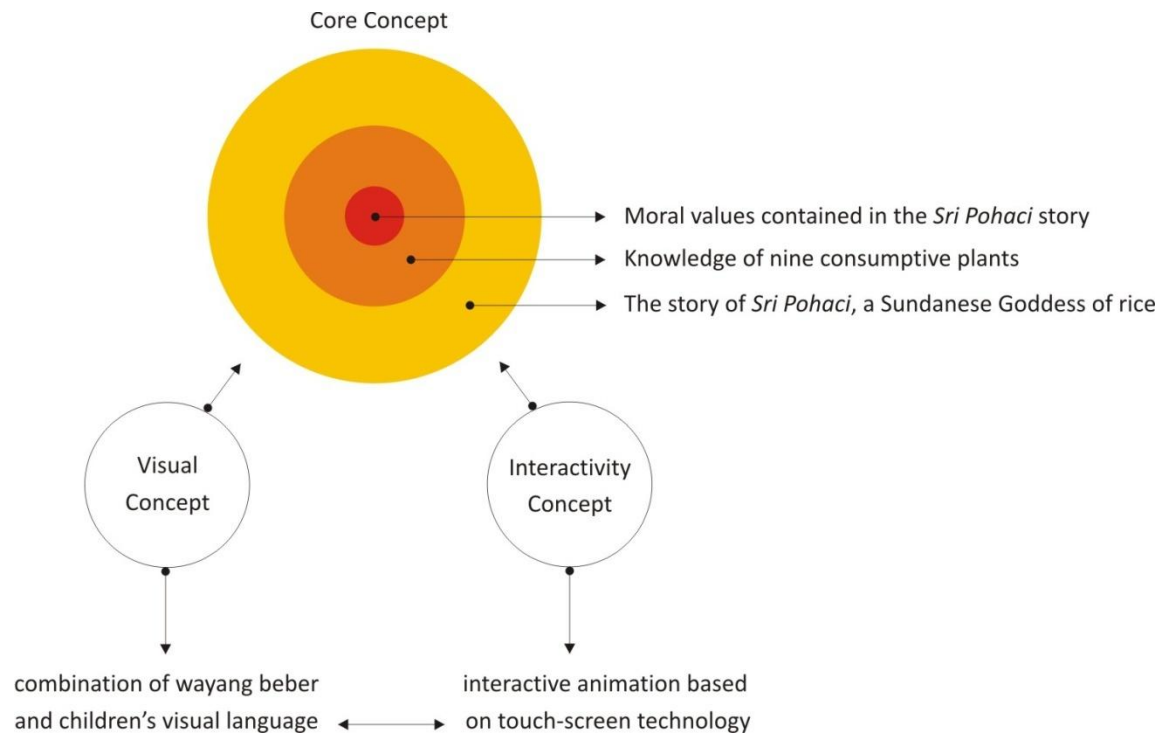
3. Mobile device can be used as an educative companion to optimize children spare time accompanied with good quality of educational materials.

3. DESIGN PHASE

The e-book application (app) design utilizes digital storytelling method, combined with touch-screen technology to enable interactive animated features. Digital storytelling method emphasize narration, visual, audio and software aspects using user-centered design (UCD) approach.
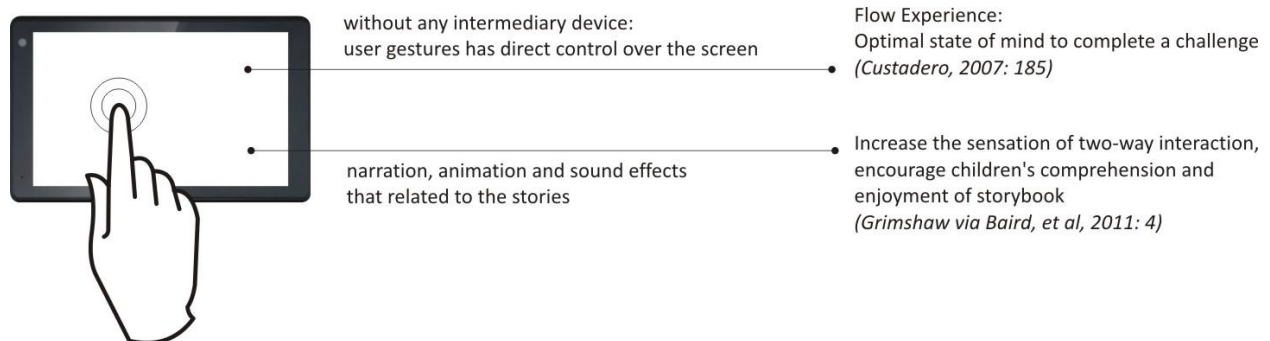
Core Concept

1. Introducing the story of *Sri Pohaci*, a *Sundanese* Goddess of Rice as one of Indonesian classical literature

2. To share knowledge about nine consumptive-plants

3. To preserve moral values contained in the story of *Sri Pohaci*

Core Concept

→ Moral values contained in the *Sri Pohaci* story

→ Knowledge of nine consumptive plants

→ The story of *Sri Pohaci*, a Sundanese Goddess of rice

Visual Concept

Interactivity Concept

combination of wayang beber and children's visual language ←→ interactive animation based on touch-screen technology

Figure 3. Core concept
Source: Author, 2013

Interactive Concept

without any intermediary device: user gestures has direct control over the screen

Flow Experience: Optimal state of mind to complete a challenge *(Custadero, 2007: 185)*

narration, animation and sound effects that related to the stories

Increase the sensation of two-way interaction, encourage children's comprehension and enjoyment of storybook *(Grimshaw via Baird, et al, 2011: 4)*

Figure 4. Interactive concept
Source: Author, 2013

The e-book consists of 6 chapters, 24 pages, imitated Javanese traditional storytelling system, *wayang beber. Wayang beber* consists of 6 scroll, each one represents 4 segments of stories. The interactive concept combined *wayang beber* system (left to right reading) (Tabrani, 2005: 23) and the cosmology of *Sundanese* poem: the universe consists of three realms, the upper world (god/ goddess), the middle world (human), and the underworld (earth guardians) (Soemarjo, 2003:57).
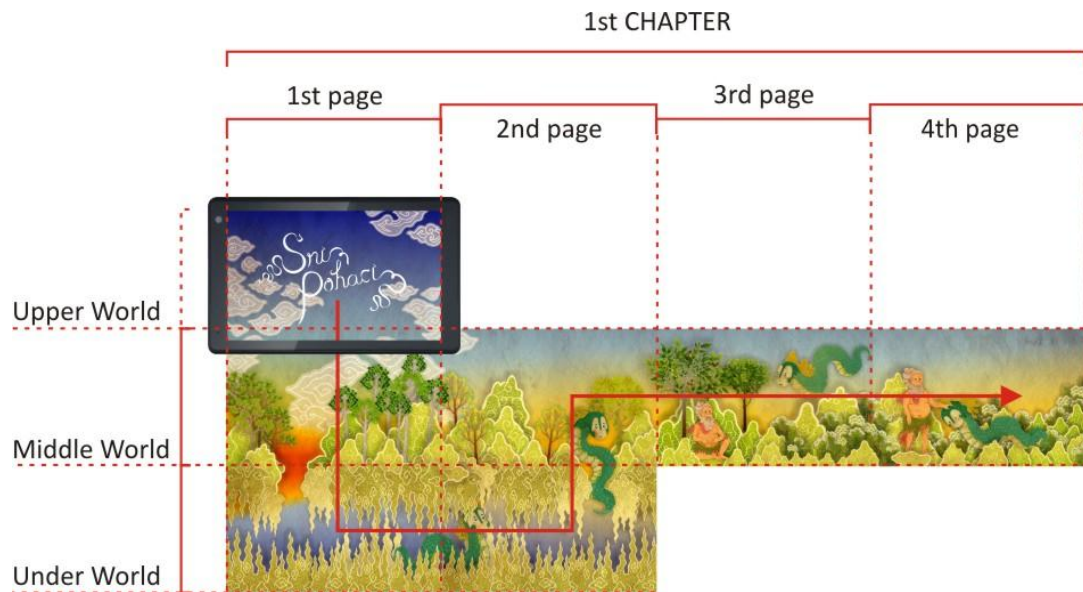
Figure 5. Interactive concept of e-book app
Source: Author, 2013

Visual Concept

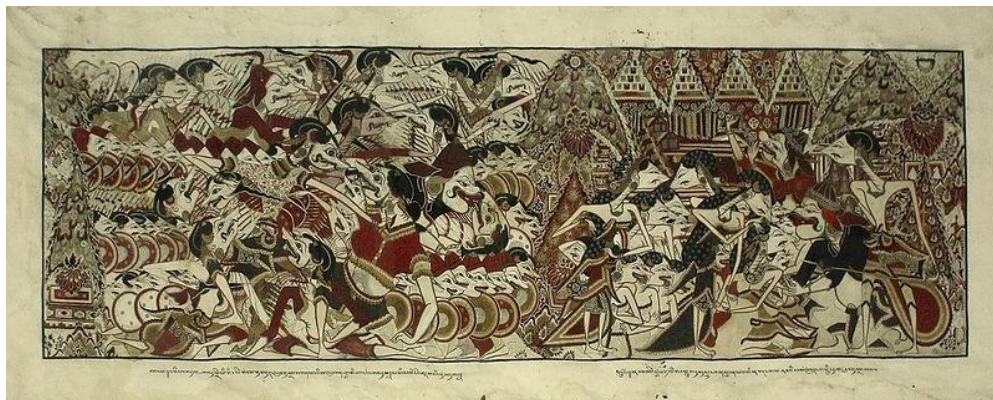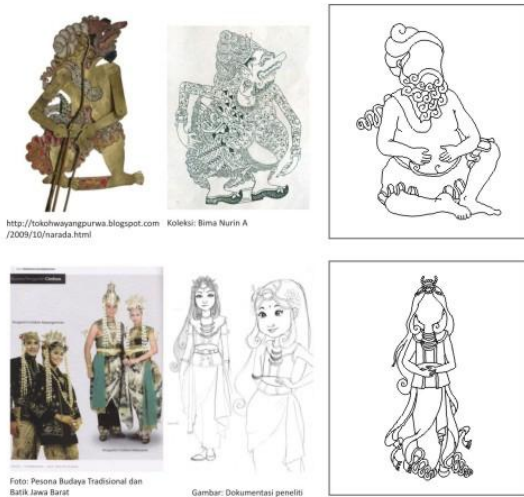Combination of *wayang beber* visual language and children's visual language:

Figure 6. *Wayang Beber Jaka Kembang Kuning*
Source: wikimedia.org

Figure 7. Children's drawing
Source: Ahmad (2009)

Image way (the way to draw it)

- Head to toe drawing
- Simplification of form
- Typical look
- Naturalist-stilasi
- Certain object is enlarged
- Non- perspective
- Figures visualization based on
  shadow puppet attribute and
  the story cultural background

Figure 8. Image way
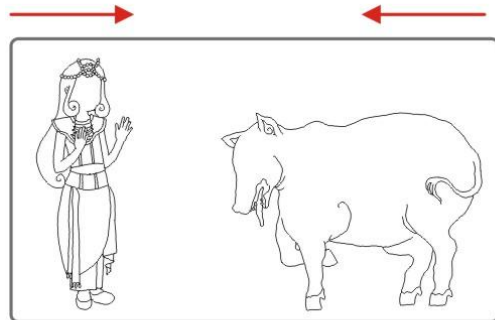**Source: Author, 2013**

Color palette

Color combination:
- Cirebonese cloth painting
  (Sri Baduga Museum collection, Bandung)
- Colors for kids
  (Samara, 2006: 237)

Figure 9. Color palette
Source: Author, 2013

Inner grammar
## (how to compose a picture from several images with its own image way)

- The characters portrayed as two sides
facing each other (jagongan)

- The bottom edge = ground line
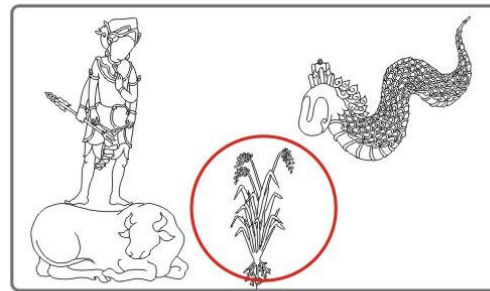- Good character/ host (left), the villain/
guests(right)
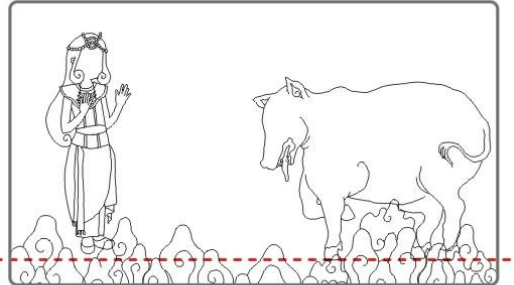
- The drawing is shot from several angles,
several distances and several times

- Each page consists of several scenes
(for preschool children up to 4 scenes)
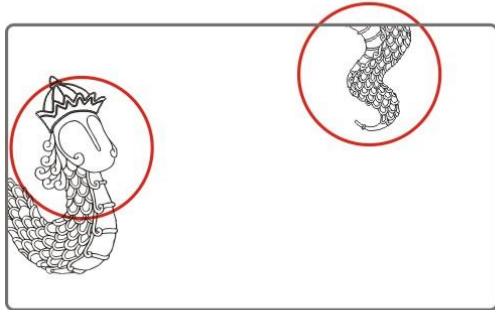
.eg the character are in two location,
different time in one scene
- Chronological, flash forward

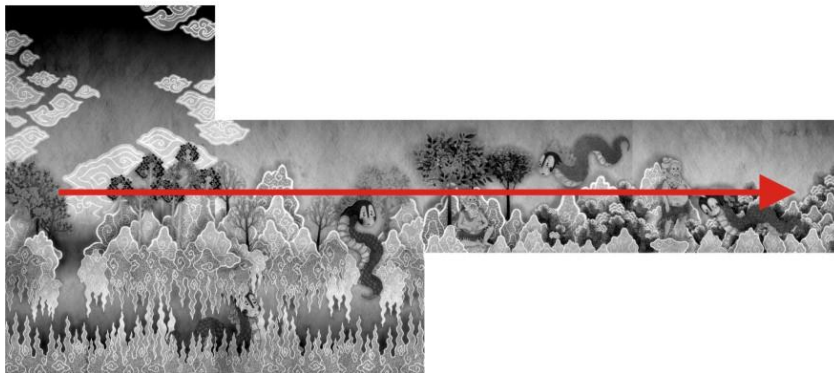.eg the growth transformation of paddy

Figure 10. Inner grammar
Source: Author, 2013

Outer grammar
(the connection between different inner grammar of one picture and next picture that makes a series of pictures)

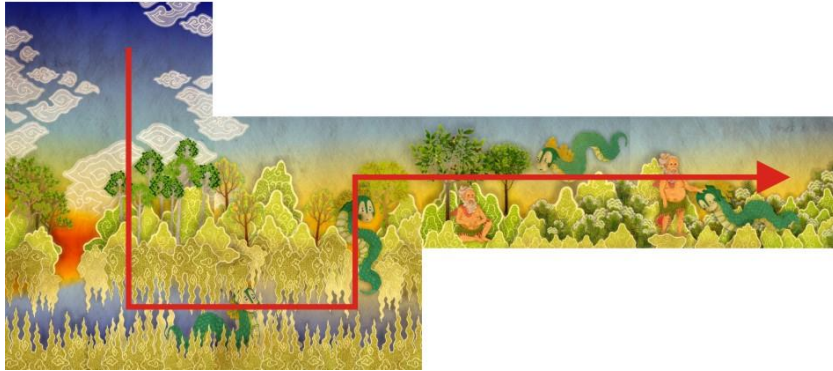Audience view directions: Top to Bottom, Left to Right, Bottom to Top

Figure 11. Outer grammar
Source: Author, 2013

4. CONCLUSIONS

The concept of digital storytelling through narration, visual, audio and interactivity base on touch-screen technology to enable interactive animated features can increase the sensation of two-way interaction to encourage children's comprehension and enjoyment of storybook. In addition, these e-book app elaborate a unique visual storytelling that carries the ancient tradition from Indonesia to the present day. These findings would open a fresh approach and many possibilities in visual communication, especially in the field of e-book app.

5. REFERENCES

BUNANTA, Murti (1998). *Problematika Penulisan Cerita Rakyat*. Jakarta: Balai Pustaka.

_____, (2008). *Buku, Mendongeng dan Minat Membaca*. Jakarta: Kelompok Pencinta Bacaan Anak.

DANANDJAJA, James (1997). *Folklor Indonesia, Ilmu Gosip, Dongeng, dan lain lain*. Jakarta: Pustaka Utama Grafiti.

JOHNSON, Robert R. (1998). *User-Centered Technology: A Rhetorical Theory for Computers and Other Mundane Artifacts*. State University of New York Press.

MUNTIAZ, PRIYANTO, ALFONZO (2009). Cara Wimba dan Tata Ungkap Bumper MTV. Sebuah Kajian Bahasa Rupa Media Rupa Rungu Dinamis. **Jurnal Wimba** Vol.01 No.1/ 2009. Bandung: ITB.

NORMAN, Donald A. (2004). *Emotional Design: Why We Love (or hate) Everyday Things*. Basic Books.

SUMARJO, Jakob (2003). *Simbol-Simbol Artefak Budaya Sunda.* Bandung: Kelir

TABRANI, Primadi (1991). *Meninjau Bahasa Rupa Wayang Beber Jaka Kembang Kuning Dari Telaah Cara Wimba dan Tata Ungkap Bahasa Rupa Media Rupa Rungu Dwimatra Statis Modern, Dalam Hubungannya dengan Bahasa Rupa Gambar Prasejarah, Primitif, Anak dan Relief Cerita Lalitavistara Borobudur*, Disertasi Doktor, Fakultas Pasca Sarjana, Bandung: ITB

AHMAD, Hafiz, SOO-MIN, Lee (2009). Telling Stories using Children's Visual Language A Unique Approach in Picture Books with Case Study from Indonesia and Korea. [pdf]. http://www.iasdr2009.org

PRATOYO, Kalsum. (2010). Kearifan Lokal dalam Wawacan Sulanjana: Tradisi Menghormati Padi pada Masyarakat Sunda di Jawa Barat. Jurnal Sosiohumanika, 3 (1). Bandung. Universitas Padjadjaran. ISSN 1979-0112 2010;p.84 http://www.sosiohumanika-jpssk.com/sh_files/File/3.Kalsum.sosio.may.2010.pdf. (01-04-2012)

SHANK, Patti. (2005). The Value of Multimedia in Learning. www.adobe.com/designcenter Accessed: September 30th 2011.

AUTHOR

Remi, Citra
citraremi@gmail.com
Scholarship of Excellence for
Master Studies in Multimedia & Game Design
Bandung Institute of Technology
Ganesha 10 Bandung 40132
West Java – Indonesia

Maslan, Riama
Fleur2ria@yahoo.com
Faculty of Visual CommunicationDesign
Bandung Institute of Technology
Ganesha 10 Bandung 40132
West Java – Indonesia