

PAPER TOY AS A MODERN STORYTELLING AID AMONG CHILDREN (EDUCATION)

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Graphical abstract



Abstract

This paper explains the use of paper toys whose special features are itemized, as a modern storytelling aid. This new approach is an innovative technique approach in teaching children to tell stories. Digital learning and live storytelling practice can enhance the cognitive intelligence, analytical thinking, and psychomotor development among 3 to 6-year olds. These paper toys are designed to be transforming into mobile applications. This way is practical for on-line business concept and at the same time to reach high demand in teaching 21st century children.

Keywords: Paper toy, modern storytelling, mobile applications

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1.0 INTRODUCTION

Paper toy is a 3D design model made of paper. Paper toy has many features relevant as aids in telling stories to children. Children are receptive to play toys attractively designed.

Young people today enjoy paper toys because they are largely free, or can be purchased on-line. Figure 1 shows many film characters such as Batman, Spiderman, Iron-man, Red Devil, Man in Black, as well as computer game figures such as Hello Kitty, Super Mario Brothers, Mr. Bomberman have been transformed into paper toys. There are also many new characters, well designed and equally colorful. Paper toy designers such as Louis Bou¹, Brian Castkeforte², and Michelle Romo³, have come up with stunning paper toys that have appeared in many design magazines. They have also published books for paper toy fans.



Figure 1 Paper toy designs based on films and digital games. Source: <http://randjenniferscott.blogspot.com/2012/04/paper-toys.html>

¹A Graphic Designer and Art Director for Monsa Publishing, Barcelona.

²A Graphic Designer/Animator from Los Angeles.

³A Freelance Designer and Character Illustrator from California.

Children are keen to re-use the paper toys with which to tell stories. This is because children and the world of toys are hard to separate. More so, these paper toys can be touched and moved like dolls, thus making the storytelling more exciting and easy to follow.

Such edutainment activity instills self-confidence because it is conducted in front of the audience. The storytelling approach sharpens the presentation and language skills of the child, whose memory can thus be trained. Fogarty (1997) says:

Storytelling and related activities foster the critical thinking which involves participation in problem solving, supports communications, builds a knowledge base, and develops skills and attitudes conducive to emergent literacy.

Indirectly, a more competent generation can be had in transforming the nation's education system for the better.

2.0 STORYTELLING APPROACH

In Malaysia, educationalists have introduced the concept of Fun-Learning to help children understand a given subject. But paper toys have never been used. Paper toys as a medium in teaching install new vigor to educators consisting of pre-school teachers and parents.

In this paper, the packaged materials are in the form of interactive digital. In the package there are three menus: "Storytelling Papertoymation Learning Concept (SPLeC)", "Folklore Papertoymation" and "Paper Toy Template".

A. **Storytelling Papertoymation Learning Concept (SPLeC)**

This is a module and teaching aid to monitor the learning of storytelling.

B. **Folklore Papertoymation**

Consists of several videos of paper toy animation based on Malaysian folklore.

C. **Paper toy Template**

Consists of paper toy template of folklore characters that have the Print navigation button. Also available are the steps to make paper toys.

The story telling has two stages: watching and presenting. The first stage is for the children to watch folklore papertoymation. The teacher then explains the moral content of the story, the characters, the costumes, and the locations, as seen in the module. The second stage is that the paper toy template is printed using art-card paper. Using the technique of print-cut-fold-glue the characters are built as paper toys. Finally, having seen the animation videos, the children are now encouraged to re-tell the story they have seen in their own way using paper toys.

Thus the teaching of storytelling becomes more entertaining. The children get excited and ready to participate. They turn into puppeteers, manipulating their paper toy characters. The props generate their

creative instincts when they physically hold the characters while telling the story, a ground breaking experience for shy children. Brand, Susan T. & Donato, Jeanne M. (2001) say that using puppets to tell stories are good for children who have a short attention span, who are shy, expressive, regardless of ethnic backgrounds.

The children undergo several steps following the Storytelling Papertoymation Learning Concepts (SPLeC). These test their skills, as indicated in Gardner's Multiple Intelligences (1983), centered on three activities as shown in Table 1.

Table 1 How the three activities in SPLeC module is supported by Gardner's multiple intelligence theory

ACTIVITY	DESCRIPTION	GARDNER'S THEORY
Watching Papertoymation and Explaining the story	Understand narrative, story, audio, dialogues, characters, costumes, and props	<ul style="list-style-type: none"> • Visual/Spatial Intelligence • Musical Intelligence • Naturalist Intelligence
Making paper toys	Identify the characters and learn in a group to follow instructions on how to make paper toys (print-cut-fold-glue)	<ul style="list-style-type: none"> • Visual/Spatial Intelligence • Logical-Mathematical Intelligence • Bodily-Kinesthetic Intelligence • Interpersonal Intelligence
Telling Folklore	Encourages creativity and spurs imagination while telling the tales, sharpens verbal skills, enhances self-confidence	<ul style="list-style-type: none"> • Linguistic Intelligence • Bodily-Kinesthetic Intelligence • Interpersonal Intelligence • Intrapersonal Intelligence • Musical Intelligence

The tales to be told are folklores, recreated, restructured, and reconstituted to suit current sense, and to express moral values. The tales are told in the form of papertoymation in which there are brief dialogs, music, and background songs and entertaining animations.

Local folklores are chosen because they must be revived for young people who seem to be enamored by folklores of other lands. In this way, young people are directly involved in portraying the richness of their heritage in costumes, languages, songs, music, handicrafts, and the demographics of the tales told. Young people may even be inspired to look for themselves the origins and locales of these stories.

Understanding folklores helps inculcate self-identity among children. Such efforts must begin early, much

like the Malay saying that to shape the adult bamboo you must first shape the shoot. Only then they can learn to appreciate their homeland, to counter the obsession they have of things foreign.

3.0 THE SPECIAL OF PAPER TOY

The folklores chose for which the paper toys are based on where the characters are from, in Malaysia. For instance, the toponymy folklore called 'Kubur Panjang' (The Long Grave) is from the district of Pendang, Kedah that tells the story of the origin of that place. The story revolves around the issue of how 'Kubur Panjang' gets its name. The paper toys are composed of local faces, costumes, cloth designs and tools peculiar to the setting of people in 'Kubur Panjang'.

Clearly, the paper toys thus produced differ from those produced by designers whose works are more urban oriented, depicting a set of strange and creature characters. Our paper toys are more believable. Also, our paper toys have limbs that can move compared to those other that are largely static. Still, commercial aspects are considered, by emphasizing the combination of colors, fine designs, medium sized and attractiveness, Figure 2.



Figure 2 Sample of experimented Malaysian folklore paper toy design

In this world of digital citizenship, paper toys in the digital forms need the Internet to facilitate selling and self-print. The interaction of selling and buying is so rapid that no sooner a product is marketed as usable, it is sold. Our product is marketed on-line and is now in the process of generating a mobile application form.

Mobile application is an appropriate step to take, due to the interactive nature of our paper toys. The application is meant to assist the Mobile Learning

Devices. In this way, the paper toys enliven the modern learning environment. Such claim has been backed by Rogers, Kipp D. (2011) in his study on Mobile Learning:

As we search for technology solutions for our education problems, which appear to continually increase, the data tell us that mobile learning not only appeals to kids of today, it helps with academic achievement.

M-Learning (Mobile Learning) has been accepted as a new trend in this country which is heading toward interactive learning to achieve academic excellence. Malaysians use smart phones and tablets under numerous labels such Apple, Samsung, LG, Sony, Asus and many more. Malaysian society is receptive to these products, according to the studies conducted by GfK Asia.

The growth of Southeast Asia's smart phone market has been impressive, with nearly 7.7 million units of phones bought in the first three months of 2012 in the region's markets of Singapore, Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. (source: http://www.mobilemonday.net/reports/SEA_Report_2012).

Malaysia is among the top users of gadgets and latest technology. Thus, if a product package succeeds to becoming a mobile application then children's learning is more cost effective, in tune with the times.

4.0 MAKING OF PAPER TOY



In this study, the making of paper toys goes through the first three stages: Design Research, Sketching and Design Execution. The details for these three stages are summarized as shown in Table 2.

Table 2 The making of folklore paper toy

HOW TO MAKE A FOLKLORE PAPER TOY


Design Research⁴

- Identify the tale, location, maps, dialects
- Identify the characters in the tales
 - character profiling
 - protagonist
 - antagonist
 - features, body shapes, demeanor, personality
 - cloth styles, costume design, accessories, props


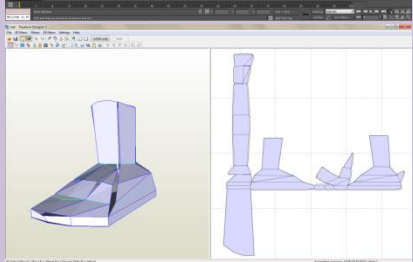
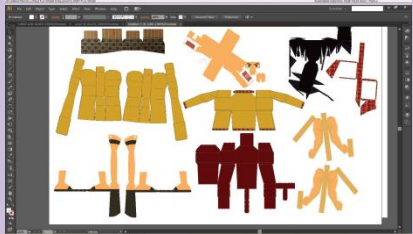
ii) Sketching

- Character Sketch
- Character Style
- Color Match Study
- Refining Character Design
- Character views (front, left side, back, right side)



iii) Design Execution

- Model Building
 - 3D Studio Max (save as .3DS format)
 - Implementing character design into 3D modeling
- Transfer to Template
 - Pepakura Designer (save as .pdo format)
 - Unfolded 3D model into template.
- Patterns and Colors
 - Adobe Illustrator (save as .pdf format)
 - Illustrate face, accessories, props
 - strokes stylize
 - patterns
 - coloring

After going through the above three steps, the paper toy is ready to be constructed. First, print (art-card paper is advisable), cut, fold, and finally glue. The paper toy is now completed and the children can now use it in their storytelling, Figure 3.



Figure 3 Completed paper toy design

⁴Primary source –academician, activist and local people.
 Secondary source –book, news paper, magazine, journal and internet.

5.0 CONCLUSION

This study aims at producing a product that has a potential to enter the global market, and to enhance Malaysia's folk heritage in the eyes of the world. The fundamental technique of making paper toy has been identified and designers anywhere in the world can access it. Paper toys on Malaysian folklore are actively being produced. 14 folklores on the theme of toponymy have been chosen to represent each state in the country, displaying the diversity of cultures and value that have commercial potentials.

The module for Storytelling Papertoymation Learning Concept (SPLeC) and the Folklore Papertoymation are still in the analysis stage, before entering the final production stage. Mobile Application, generating toward iOS, Window, and Android are still in the early stages, as well.

We hope this product will be more enjoyable and the learning environment less stressful. We want the attention of the children and we get it. Surely this would have a positive impact on their development. We refute the notion that the smart children of the 21st century are savvy on high technology but awkward in communication skills. High technology when used wisely is most beneficial to whoever uses it.

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