

5 ICLEI 2016-38 SeolRi Kim^a

A Study on Animation Storytelling Regarding Safety Edutainment

SeolRi Kim^a, KeunYoung Yang^b, NamHoon Kim^{*c}

^aDepartment of U Design, Inje University,
197 Inje-ro, Gimhae-si, South Korea

^{b,c}Department of Design, Inje University,
197 Inje-ro, Gimhae-si, South Korea

*Corresponding Author: denamoo@inje.ac.kr

ABSTRACT

Current Korean animations are produced by focusing on the Korean Educational Broadcasting System (EBS) format. The animation ‘Oops Ikoo’ was the first safety edutainment animation in Korea supervised by experts from the Korean Safety and Educational Board. The purpose of this study was to analyse the storytelling and edutainment features of ‘Oops Ikoo’ in order to ascertain the direction of the production for future edutainment animations. This study will review past research and construct a comprehensive analysis tool for storytelling and edutainment. The storytelling analysis will be categorized by character (behaviour, appearance), story (plot, background) and edutainment (education, entertainment). The results of this study are as follows: The main character, which is a little alien prince, symbolizes a child with his/her personality and body shape. The story of storytelling consists of a textbook with sequence learning objects such as; present, basic examples, basic descriptions, advanced Q&A and review. Its intended plan was for children to learn the advanced content through watching the animation. In the edutainment analysis, safety contents were categorized by household, policing, and outdoor. In addition, varying concepts were used as interest elements; such as simulations, fairy tales and news reports. A combination of 2D and 3D graphics was used to enhance and immerse the viewer/child into the story.

Keyword: Korean TV Animation, Safety Edutainment, Storytelling

Introduction

Present Korean animations are being produced for young children focusing on the format of television series. Edutainment animation is able to deliver learning information efficiently, while satisfying the child’s interest in the story by using visual effects. Children establish their values and lifestyles from watching these animations.

Korean edutainment animations focus mostly on themes of sociability and friendship. A child will learn more efficiently when the lesson materializes through the story. Furthermore, a child’s interest is enhanced because of the charming animated characters in the story which helps to enhance the child's interest. The edutainment animation can expand its fields of education to safety, health, and study.

One notable characteristic of children is that they are not fully able to protect themselves from danger, especially lacking in recognizing dangerous situations. Because of this, educational institutions are responsible for the education of children on safety and the basic ability for them to protect themselves. Safety directly relates to a child’s life and feeling safe is a basic human need. Therefore, education on safety is essential.

Because safety education can prevent accidents and save children’s lives, the animation contents should focus on instruction and arousing a child’s interest in being safe.

By analysing the key features of storytelling, safety, and edutainment animation, this research will help foster and grow the direction of future edutainment animations.

Research Objectives

This research has two objectives:

- (1) To ascertain the features of storytelling through safety edutainment animation.
- (2) To influence the direction of future edutainment animations.

Literature Review

Digital Storytelling and Edutainment

Joe Lambert, the founder of the global Digital Storytelling movement, described digital storytelling as telling their story using digital tools instead of verbal or written communication. The gathering of personal stories into short little nuggets of media called Digital Stories, through a methodology called Digital Storytelling (Lambert, 2012).

In particular, the elements of storytelling in animation are defined as character, background, event (plot), material, and theme (Bae, 2011). Because the animation bases on a television format has repetitive pattern in the story, characters place more emphasis, at the same time, in an aspect of industrial strategy, characters have high potential to involve in the market as one source multi use. Since digital contents attach importance to visual factors, the character’s behavior and appearance should be considered.

Edutainment is a compound word of “education” and “entertainment”. Also, edutainment is “content with education effect during the play” (Park, 2006). Instead of using a traditional passive educational method, edutainment is able to raise a child’s learning faster by his/her spontaneous participation. Thus, edutainment is able to motivate a child’s learning and lead him/her to self-directed learning.

Johan Huizinga asserted play is older than culture, which means civilization has added no essential feature to the general idea of play (Huizinga, 2014). Human beings have made politics, economy, culture, diplomacy, or sports based on the principle of play. However, the aim of play is not intend to be practical, it is for fun and is opposite to the aim of the practical educational aim. Therefore, play and education need to be balanced (Kang, 2011). The storytelling in edutainment contents, the education with play, pursues the combination of both education and entertainment. Educational intention need to be merely exposed to the viewers.

Table 1
Storytelling Analysis tool

Classification	Details	Content
Character	Behavior Appearance	
Story	Event Background	
Edutainment	Education Entertainment	

Importance of Safety Education

The Korean National Statistical Office (NSO) reported safety accidents ranked at the top in the cause of Korean children's deaths. Among Organization for Economic Cooperation and Development (OECD) members, Korea ranked third in children’s deaths due to safety,

followed by Mexico and the US. Their report showed clearly that Korean children are exposed to dangerous environments.

Their report identified the top types of children accidents ranked as car accidents, drownings, and falls; in addition they found most accidents occurred at home and school.

A child's life links directly to safety and unsafe behaviors and are a direct threat to that child. As children mentally and physically develop, they are more likely to be involved in an accident. In order to help solve these child safety problems, educating children in safe behaviors is necessary.

Table 2
Safety Accident Statistics of Korean Children

Age	Car Accident	Fall	Drown	Fire	Poisoning	Homicide	Etc.	Total
0	6 7.8%	6 7.8%	2 2.6%	0 0.0%	0 0.0%	12 15.6%	51 66.2%	77 100.0%
1-4	39 35.5%	14 12.7%	6 5.5%	7 6.4%	1 0.9%	26 23.6%	17 15.5%	110 100.0%
5-9	44 37.3%	11 9.3%	22 18.6%	4 3.4%	0 0.0%	22 18.6%	15 12.7%	118 100.0%

Source: Korean NSO (2013), Statistics Regarding Cause of Death

Methodology

Data Collection

'Oops Ikoo' ('Ikoo') is the first safety edutainment animation in Korea and won the President's Prize in Korean Contents Award 2010. 'Ikoo' describes safety regulations through the story with the main character, a little alien prince's life habits. During the production of 'Ikoo', experts from the Korean Safety and Educational Board helped supervised.

Total 2 seasons of 'Ikoo' had 52 episodes. Each episode ran approximately 7 minutes. The story simulated different accidents and taught safe behaviors. The episodes of 'Ikoo' categorizes household safety (17 episodes), policing safety (12 episodes) and outdoor safety (23 episodes). The outdoor episodes became more detailed because they incorporated broad idea like themes using schools, public areas and exercising.

Table 3
Data of 'Ikoo'

Classification	Details	No. of Episodes	Total
Household Safety	Electricity	4	17
	Sanitation	5	
	Living	8	
Policing Safety	Traffic	9	12
	Crime	3	
Outdoor Safety	Physical Activity	7	23

Classification	Details	No. of Episodes	Total
	Public Facility	10	
	Disaster, Etc.	6	

Findings

The main character Ikoo is also not familiar with safe behaviors just like a child. Ikoo's physical shape is like that of a child, a big head, short and is a metaphor of a child. When Ikoo gets into a trouble like a car accident, the human character Remi helps Ikoo and instructs him in safe behaviors.

Current digital storytelling requires interactivity with active participation and identification. While adult viewers focus on a mentality of characters in a distance, children tend to find similarity with theirs. Children want to see part of themselves such as making mistakes in the story, at the same time, the identification has effect on healing children's mental health.

Because of a child's small attention span, each episode lasted five minutes and added two more minutes for advanced learning and review. Though the story doesn't show typical plot style, the plot of 'Ikoo' consists of a textbook with sequence learning objects, basic examples, basic descriptions, advanced Q&A and review.

In order to prevent a child becoming bored, like with traditional TV animation, 'Ikoo' used various concepts such as news reports and fairy tales. The alien character Ikoo and the transforming robot doll Bibi increased a child's attention span. In addition, the flow element utilized with 'Ikoo' incorporated visual effects by mixing 3D and 2D graphics and game elements such as tutorial instructions and simulations.

Table 4
Storytelling Analysis of 'Ikoo'

Classification	Details	Content
Character	Behavior	Ikoo: a naughty little prince Bibi: a servant doll of Ikoo Remi: guardian of Ikoo on Earth
	Appearance	Ikoo: alien, whose body shape resembles a child Bibi: bear shaped doll but a robot Remi: human
Story	Plot	Structure of a textbook: learning object present, basic examples, basic description, advanced (Q&A), and review
	Background	Alien Planet, Present Earth
Edutainment	Education	Content: household, policing, outdoor safety
	Entertainment	Varying concepts (simulations, fairytales, news reports) Combination of 3D and 2D graphics

Conclusion

Conclusions

The plot of 'Ikoo' applied a textbook format in order to enhance safety education for children. Because children tend to identify themselves through what they see, the animated characters were designed to be similar in appearance to children. Also, each safety episode was based on the statistical data gathered by the government. Repetitive exposure to

important safety content strengthens a child's learning abilities. Focusing on animations, concepts, audiovisual effects and characters are useful tools in maintaining children's attention.

Recommendations

Production of animations, the plot of the stories and characters are the most important aspects of edutainment. The core safety content must be simple and brief but used repetitively. Because real life illustrated simulations are easier for a child to understand, by using sensory simulations such as mixing 2D and 3D graphics for visual effects and sound effects will all strengthen a child's learning ability.

The ultimate aim of safety edutainment animation is to ensure a child uses safe behaviors to prevent accidents in advance. The animation must help children make the right decisions based on being safe. This research will help provide important information for storytelling for improved edutainment animations in the future.

References

- Bae, J. Y. 2011. Digital Animation Storytelling, *Salrim Publisher*.
- Huizinga, J. 2014. Homo Ludens: A Study of the Play-Element in Culture. *Martino Fine Books*
- Kang, S. H. 2011. Digital Edutainment Storytelling, *Salrim Publisher*.
- Lambert, Joe. 2012. Digital Storytelling: Capturing Lives, Creating Community. *Routledge; 4th Revised ed. Edition*.
- Park, J. W. 2006. White Paper of Culture Industry, *Ministry of Culture, Sports and Tourism*.