

Negative Reinforcement for Moral and Ethical Development: Case Study of Short Movie, “His Story”

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Abstract: - This research studies the critical and analytic expressions of Bachelor’s degree students, aroused by viewing short movie called “His Story”. The short movie was developed as a negative reinforcement based on B. F. Skinner’s theory of reinforcement in behavioral modification (1957) and other learning and behaviorism theories, also produced with new techniques called Physical Effects that includes 3D images and Visual Effects which is found appealing to audiences. The sample for this study was selected from Bachelor’s degree students of King Mongkut’s University of Technology Thonburi. We have formulated a proposition that after viewing the short movie, the sample will be able to respond critical and analytic expressions encouraged by the negative reinforcement factors in the short movie. To understand this hypothesis, the expressions of the sample will be equivalent, or at least comparable to the standard; the sample can provide physical facts and the implication of actions, also describe the actions and consequences in movies in moral and ethical keywords, such as, honest. To examine the results of negative reinforcement factors of the movie, we began researching about negative reinforcement, learning and behaviorism theories. Then, we produced the movie with Physical Effects techniques. After the short movie was viewed by the sample, it was assessed and the results were analyzed. It was found that 1 percent of sample was persuaded by the wrong alternative idea of moral; superstitions. 4 percent of the sample group can describe physical facts but couldn't explain the implication of actions, direct to correct idea of moral, appeared in the movie. 2.5 percent of the sample group couldn't describe physical facts or implications at all but there is 92.5 percent of the sample group that shows the contrary; they could provide physical facts complete with understanding of implication. Consequently, the short movie, “His Story”, can cause effects to the audience as a negative reinforcement. Therefore, the short movie is eligible to be applied to behavioral modification for moral and ethical development of students.

Key-Words: - Negative Reinforcement/Critical and Analytic Expressions/Morals/Ethics/Short movie/Physical effect

1 Introduction

On account of our own interest in presenting a beneficial story that includes moral lessons for audience moral and ethical developments and it is our interest to present the story in appealing and outstanding way for drawing their attention.

The plot of our instructional media was inspired by a short story called "The tale from Toey Swamp", written by Vachara Sajarasasin. It is a story about a haunted swamp and Thai local beliefs which were passed through generations. We have combined the inspiration from the book with our new ideas and written a new story which is perfectly interleaved with moral and ethical lessons. The short movie is named "His Story". It is an exciting plot about beliefs and frightening haunt which is told by

a life of a Village Chief, the main character. We chose to present the story in the short movie form because it is easily accessed by the audience and it includes images and audio which allow the audience to understand and learn better than other types of media. The short movie is also improved with special techniques in film production which are the techniques used to create physical effects; the simulations of natural atmosphere, for example, rain, snow, wind, waves, dangerous situations (i.e. burning, guns firing, explosion, etc.) and color corrections. These techniques were to create realistic events in the short movie.

The actions and consequences of the characters in the short movie were created as the negative reinforcement factors that were meant to cause

impression to the audience; feeling feared of the consequences of immoral actions showed in the movie. The audience's reaction to the impression appears as an urge to avoid acting immorally in their real life. The idea is to help the audience control and forces themselves and preserves their moral and ethics without external reinforcement. It is called "inner reinforcement".

As a result, we created a short movie with Physical Effects techniques which was viewed and assessed, first by the experts of production, behavior modification and storyline, then, by the sample. The responses of the sample are evaluated if they are critical and analytic expressions stimulated by negative reinforcement factors in the movie by according to our prospective responses. Then, the research comes to conclusion if the short movie succeeds our goal for developing audience's impression and it is suitable for being applied to behavioral improvement program for students. In future study, we hope this research will be a guide for related works that study the adaptation of reinforcement, learning and behaviorism theories with instructional media for moral and ethical developments.

2 Objectives

The following are the key objectives of the study.

1. To find out the efficiency of the instructional media; the short movie called "His Story".
2. To evaluate the students' ability to respond critical and analytic expressions, stimulated by negative reinforcement factors of the short movie.

3 Related Theories Studied

The related theories are mostly about learning developments in attitudes, morals, ethics and behavioral expressions caused by viewing the short movie for educational improvement. The related theories are as follows:

3.1 Skinner's Theory of Reinforcement

It is the theory based on motivation by placing conditions. It is consequence which is achieved after the behaviors are expressed by an actor. Reinforcement motivates the actor to continue expressing those behaviors. There are 2 types of reinforcement; positive and negative. The positive reinforcement is consequence in the form of the pleasant things or conditions given to the actor and causes an urge for the actor to repeat the behaviors again to gain those desirable consequences again.

Negative reinforcement is done in reverse by giving unpleasant things or conditions to the actor until the actor stops expressing the behaviors to avoid their consequences.

3.2 The instructional model based on affective domain by Krathwohl, Bloom and Masia

This theory has 3 educational objectives which are knowledge, skills and attitudes. The attitudes include receiving, responding, valuing, organizing and characterizing which could be applied to create wanted social or moral values in learners which lead them to improve their behaviors.

3.3 Pavlov's Classical Conditioning Theory

It's about responding to the stimulus or the stimulus arouses humans to express their behaviors intentionally or unintentionally. The responding behavior may not be aroused by a single stimulus. Others or environment could arouse the behaviors as well if they're conditioned correctly.

3.4 Piaget's Cognitive Development theory

This theory is about youth intellectual development which is leveled by age and the development shouldn't be forced to skip a level because it will cause more disadvantages than the advantages. But, creating experiences to support the progress during development into the next level will help speed up their growth and it gives good results.

3.5 Ausubel's Meaningful Learning theory

Learning is meaningful if learners could link that knowledge to the knowledge they've learned before. They'll see the relationship of data and their intellectual structure could keep it in memory to be used in the future.

3.6 Information Processing Theory

Behavioral expressions or learning is happened by the learners' need. Learning is the cause of interaction with the stimulus in environment.

3.7 Theories of motivation

3.7.1 Behavioral View of Motivation

The past experience has an effect to human's motivation, so every behaviors of human have motivated by experiences in the past mostly. The positive experiences become the positive motivation that arouses human's needs to express behaviors even more. This theory highlights the importance of extrinsic motivation.

3.7.2 Social Learning View of Motivation

Motivation is a social learning, especially in identification and imitation from people or admired experiences which is an important motivation in person's behavioral expressions.

3.7.3 Cognitive View of Motivation

Motivation in behavioral expressions of humans depends on how we perceive things in the environment by relying on intellectual ability. Humans are persuaded from many ways in order to express behaviors. New received experiences have to be accommodated the differences to match the old experiences and it is based on the intellect. This theory highlights intrinsic motivation.

3.8 Related theories in film production

1. Essential factors in short movie production.
2. Processes of story creation in short movie production.
3. Processes of story creation in short movie production.
4. Basic knowledge of D-SLR camera for film production.
5. Physical Effects techniques in film production: effects used in film to simulate natural conditions or phenomenon, includes natural atmosphere; rain, fog, snow, etc. and dangerous conditions; explosion, gun firing, etc. These can be created whether in the scenes during the production or with computer tools.

4 Process and Advantages

The process of study started with completing the short movie production. The 1st step is the pre-production which consisted of finding the suitable storyline or the plot then casting and finding locations. The 2nd was the production process when we began filming the movie and when it's finished we started the process of the post-production. In post-production process, we added some 3D computer generated images or visual effects to the short movie so it becomes more interesting for the target audience. Then, the short movie was viewed by the samples and the samples assessed the Critical thinking and analyzing assessment form. At last, we summarized the results.

1. The target population is students in Bachelor's degree.
2. The group of samples was selected from a purposive sampling. Size of sample was determined by W.G. Cochran's technique, sample size determination for unknown amount of population, results as 50 students in junior year of Applied

Computer Science-Multimedia, King Mongkut's University of Technology Thonburi in academic year 2011.

5 Learning Materials

5.1 Project development tools

5.1.1 Adobe Photoshop CS4

Application software effectively used for image editing, graphic designing, creating photo effects and image retouching.

5.1.2 Adobe Premiere Pro CS4

Application software used for video and audio editing to create a movie. The main feature is video editing, which could be done by combining multiple videos into a sequence and use editing processes; adding effects, adding subtitles, adding texts, adjusting audio. Furthermore, it could create a title and other processes until the movie is completed.

5.1.3 Adobe After Effects CS4

Application software used for creating motion graphics. It supports files from Adobe Illustrator and Photoshop or even movie files. It's a program used for adding visual effects to the movie.

5.1.4 Adobe Sound booth CS4

Application software used for professional high quality audio production to record, edit and adjust audio instantly. It helps record the soundtrack for videos instantly, efficiently and reliably.

5.1.5 Auto desk Maya 2012

Application software used for efficiently produce 3D images and visual effects. Its main features are 3D modeling, 3D animation and rendering management.

5.2 Project assessment tools

1. The short movie; "His Story".
2. A project quality assessment form which is a petition assessed by the experts; experts of production techniques, the storyline and behavior modification.
3. Critical and analytic expressions assessment form for students.

6 Conclusion

The results of study are summarized as follows:

1. The quality of presentation is an average of 4.33 with standard deviation of 0.58, leveled as good.
2. The quality of storyline is an average of 4.37 with standard deviation of 0.00, leveled as good.
3. The quality of production is an average of 2.71 with standard deviation of 0.00, leveled as fair.
4. The quality of behavior modification application is an average of 5.00 with standard deviation of 0.00, leveled as excellent.
5. 1 percent of sample was persuaded by the wrong alternative idea of moral; superstitions.
6. 2.5 percent of the sample group couldn't describe physical facts or implications at all.
7. 4 percent of the sample group can describe physical facts but couldn't explain the implication of actions appeared in the movie.
8. 92.5 percent of the sample group could describe physical facts but could explain the implication of actions appeared in the movie.

7 Screenshots

The results of study are summarized as follows:



Fig.1 The title, "His Story": this is the overture of the short movie. The technique used in this scene is 2D to 3D cloud. 2D images of cloud were composited in Adobe After Effects to make it looks dimensional and suitable to the storyline.

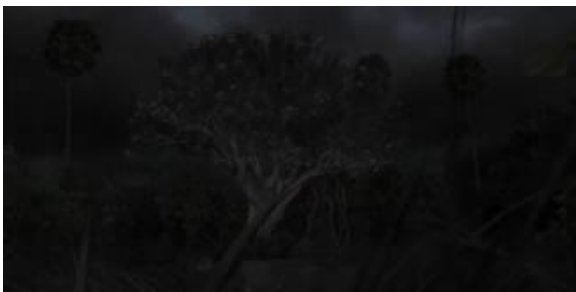


Fig.2 The introduction of Tal Swamp (the haunted swamp): This scene was created in 3D generator application; Autodesk Maya. It was rendered with paint effects with Maya software renderer. The paint effects were added turbulence to create visual wind.

Then, the scene was composited in After Effects to add lightings and dark cloudy sky. The effects, lights, colors and sounds were added to achieve a frightening atmosphere of Tal Swamp.



Fig.3 The village chief's family: this scene was produced to inform the audience about how he began being involved with the haunted swamp.



Fig.4 Running and playing kids: this scene uses a crane to create a new angle of movie. It also uses color corrections, sky replacement and rain simulation.



Fig.5 The Haunting Swamp: This scene was created to display the fault alternative idea of moral which is the local belief of superstitions. The scene was made unrealistic because it was seen and understood by the children who were told by elders in the village to believe that the swamp is haunted. A physical effect was used to create lightning and thunder storm with image of scary red eyes composited with the rendered 3D images of the swamp.



Fig.6 Searching for the missing daughter: this scene uses fire simulation created in After Effects, color corrections and brightness adjustment to change the color from day time to night time.



Fig.7 The snake scene: the snake in the scene is a 3D model created in Autodesk Maya, then composited in After Effects to use color corrections and brightness adjustment to change the color from day time to night time. This scene was created to inform the audience about how the chief began to neglect his daughter until she went missing.



Fig.8 Fleeing wife: After his daughter died, his wife left the next morning because of guilt. The second consequence occurred caused by his neglect of family. This scene presents physical effects of rain simulation and color corrections.



Fig.9 The act of corruption: This scene presents the act of corruption that the chief was performing before he faces its consequences. Implications are appeared in this scene; receiving money while wearing chief uniform and discussing about securing his position.



Fig.10 The murder: This scene is where the chief was shot because of his secret corrupting business that involves the political matters. The message of this scene is to warn the audience about the life destructions that could happen to people who lack of morals and ethics. The technique used in this scene is blood and gun firing simulations which were all created with 2D images and composited in After Effects.



Fig.11 The ending: this scene was created to link the whole story to King Bhumibol Adulyadej's speech about self-sufficiency and living without corruption. This scene uses color corrections and sky replacement.

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